

1873.

NEW ZEALAND.

THE VIENNA EXHIBITION,

(PAPERS RELATING TO).

Presented to both Houses of the General Assembly by command of His Excellency.

No. 1.

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

SIR,—

Westminster Chambers,
Victoria Street, Westminster, 27th June, 1872.

I have the honor to bring under the notice of the Government the subject of the approaching International Exhibition at Vienna, which promises to be on a very magnificent scale.

During my recent visit to the Continent, the vital importance of our Colony being properly represented on this occasion was urged upon my attention at Hamburgh, at Berlin, at Frankfort, and other commercial centres. The value to New Zealand of such an advertisement cannot, I think, be overrated.

The Colony has never yet had an opportunity of adequately exhibiting its natural and industrial resources; and I would therefore press upon the Government the importance of seizing the present one—the more so as there seems now no hope of our getting any space allotted us in this Exhibition now taking place here.

As, however, the Vienna Exhibition opens in June, 1873, there is no time to be lost; and I would suggest that immediate steps be taken in the Colony to insure the success of the undertaking.

It is very desirable that the pastoral and agricultural capabilities of this Colony should be exemplified by a good series of wools, tins of preserved meat, and everything in the way of pulse and grain, wheat, barley, oats, &c.

The natural productions of the country should be also fully represented, especially the *Phormium* and other indigenous fibres, together with everything calculated to show their adaptability for rope, cordage, textile fabrics, and paper.

Exhibits of every kind illustrative of the industrial pursuits of the Colony, such as hides, tallow, cheese, butter, woollen manufactures, &c., would all be interesting and instructive from a Colonial point of view.

It will be desirable also to exhibit a carefully arranged collection of minerals, rocks, and soils, in illustration of the immense physical resources of the country that still await development.

Specimens of coal from various parts of the Colony, with full information as to the extent and position of the fields, and samples—both rough and polished—of the various kinds of useful and ornamental native woods, would be sure to attract much attention on the Continent; and, altogether, an exhibition of the kind I have indicated would be calculated to bring the Colony into favourable notice, and to give a fresh impetus to our trade and commerce.

As the Government will be able to command the valuable advice and assistance of such men as Dr. Hector and Dr. Haast in the Colony, I feel that it is unnecessary for me to do more at present than to suggest, in this general way, what is necessary to be done.

I have, &c.,

I. E. FEATHERSTON,

Agent-General.

The Hon. W. Gisborne, Colonial Secretary.

 No. 2.

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

SIR,—

Colonial Secretary's Office, Wellington, 23rd September, 1872.

I have the honor to acknowledge the receipt of your letter No. 340, of the 27th June last, on the subject of the International Exhibition proposed to be held at Vienna, and in reply, to transmit to you the *New Zealand Gazette* (No. 48, of the 23rd September, 1872) containing a notice in reference thereto.

All the articles except produce will, to save time, be purchased by the Government; and produce will be obtained by a competition at a preliminary exhibition, to be held at Christchurch in December.

As you will be informed by telegraph, 2,500 square feet of floor space will be required, and this should be formed into a distinct Court.

1—H. 5.

The timbers, coal, and ores will be bulky, and as striking as possible. The wools and fibres, in bulk, will also require much room. All fine fibres and fleeces of wool should be put under glass. A considerable extent of wall space will be required for the maps and plans.

The Agent-General for New Zealand, London.

I have, &c.,

HENRY SEWELL.

No. 3.

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

Westminster Chambers,

SIR,—

Victoria Street, Westminster, 22nd August, 1872.

I have the honor to bring under the notice of the Government the enclosed printed letter from Mr. Owen (Secretary of the Vienna Exhibition Committee) to the Under Secretary of State for the Colonies.

In this letter the Secretary says:—"I am directed to point out that the limited period which now remains renders it doubtful whether the Colonies, especially the more remote ones, would be able to make competent arrangements themselves, or to organize and send to Europe special Representative Commissioners. Should this be found impracticable, or if they desire to avail themselves of the services of the existing organization here, the Committee would be willing not only to take charge of the interests of such Colonies, but, generally, to promote to the utmost of their power a worthy representation of Colonial productions at the Exhibition."

I have to state for your information, that I was unavoidably absent from the meeting of Committee when this course was decided on.

As Agent-General of the Colony of New Zealand, I intend, however, subject to the approval of the Government, to give the following answers to the questions contained in Mr. Owen's letter:—

1. That it is the intention of the Colony to be represented at the Vienna Exhibition.
2. That ample space will be required, of which due notice will be given.
3. That the Colony intends to send a special representative of its own, instead of availing itself of the services of the Committee.
4. That it is not proposed to place any portion of the grant to be made by the Colony at the disposal of the Committee.

I need hardly say that I am anxiously awaiting instructions from the Colony on this subject, as it is important that New Zealand should retain its distinctive characters in the proposed collective representation of the Australasian groups.

I have, &c.,

I. E. FEATHERSTON,

Agent-General.

The Hon. W. Gisborne, Colonial Secretary.

No. 4.

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

Colonial Secretary's Office,

Wellington, New Zealand, 28th October, 1872.

SIR,—

I have the honor to acknowledge the receipt of your letter of the 22nd of August last, upon the subject of the Vienna Universal Exhibition, 1873.

The Government approve of the action reported in your letter, which is in accordance with their own views and in harmony with what is being done in the Colony.

Mr. Sewell's letter of the 23rd September will have given you a preliminary intimation of the views of the Government, and I now enclose a copy of the *New Zealand Gazette*, 100 copies of which have also been sent to you under separate cover. This *Gazette* will show you the steps which are being taken to hold a Preliminary Exhibition at Christchurch, where exhibits will be selected for transmission to Vienna.

A sum of £500 will be at your disposal for the purpose of providing the necessary fittings in the Exhibition building, for expense of carriage between London and Vienna, and of repacking, returning, and disposing of the articles exhibited in accordance with instructions which will be forwarded with the invoices.

Arrangements have been made with the Bank of New Zealand for the supply of specimens of gold from the various gold fields in the Colony, to be collected and arranged by the Bank, and delivered to your order in London. Instructions will be sent to you as to the ultimate disposal of these specimens.

The Government will communicate further with you as to the appointment of a Commissioner to represent the Colony at Vienna.

I have, &c.,

J. HALL.

The Agent-General for New Zealand, London.

No. 5.

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

Colonial Secretary's Office, Wellington, 21st November, 1872.

SIR,—

I have the honor to enclose a copy of a letter of instructions to the Manager of the Bank of New Zealand, Wellington, relative to the exhibition of gold specimens at Vienna, and to request that you will take the necessary steps to have cases prepared for the proper exhibition of the samples.

I have, &c.,

(for the Colonial Secretary,)

G. S. COOPER.

The Agent-General for New Zealand, London.

No. 6.

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

SIR,— Colonial Secretary's Office,
Wellington, New Zealand, 23rd December, 1872.

I have the honor to inform you that the Government have decided to appoint Sir Charles Clifford and yourself to be Commissioners to represent this Colony at the International Exhibition to be held at Vienna in May, 1873.

The Government regret that from want of time they are unable, in the first instance, to ask your consent to act on this Commission; but knowing the great interest you take in the Colony, and relying on your desire to see it properly represented on so important an occasion, I trust you will see your way to undertake the office in question, which will necessarily be an honorary one.

A Commission will be sent by next month's mail; but as it has been suggested that the appointment may have to be made by the Imperial Government, the Governor has been requested to move the Secretary of State for the Colonies, in case such necessity exists, to cause the necessary commission to be issued to you, and such commission, if issued, will of course supersede that sent to you from the Colony.

I. E. Featherston, Esq., Agent-General
for New Zealand, London.

I have, &c.,
J. HALL.

P.S.—I enclose the letter for Sir Charles Clifford, which I request you will cause to be delivered to that gentleman, with whom you will put yourself in communication upon the subject.

No. 7.

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

SIR,— 7, Westminster Chambers,
Victoria Street, Westminster, 21st March, 1873.

I have the honor to acknowledge receipt of your letter of the 23rd December (No. 166), requesting me to undertake, in conjunction with Sir Charles Clifford, the office of Commissioner to represent the Colony at the forthcoming Vienna Exhibition, and informing me that the office in question will necessarily be an honorary one.

In reply, I beg to assure you of my readiness to accept such a commission, and of my desire to do everything in my power to promote the interests of the Colony on this important occasion.

I have, &c.,

The Hon. the Colonial Secretary, Wellington, N.Z.

I. E. FEATHERSTON,
Agent-General.

No. 8.

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

SIR,— Colonial Secretary's Office,
Wellington, New Zealand, 23rd December, 1872.

I enclose herewith a list of articles for exhibition at Vienna, which are being sent by sailing ships from Wellington, Canterbury, and Auckland. Complete lists will be sent, with bills of lading, by the first mail after each vessel has sailed; and consignees' letters, with duplicate bills of lading, will be sent by each ship. I also enclose a list of articles which will be sent *via* Melbourne, by the next Suez mail. And I further send you the copy of a letter from the Manager of the Bank of New Zealand, enclosing invoice of specimens of gold and silver, shipped at Auckland per the "City of Auckland," for delivery at the Bank of New Zealand in London to your order.

I will keep you advised by every mail of what is being done towards forwarding articles for exhibition.

I desire particularly to impress upon you the importance of making the most of such exhibits of wool as may be sent, as I have some reason to fear that the samples will hardly be such as to do fair justice to the production of wool in New Zealand.

I. E. Featherston, Esq., Agent-General
for New Zealand, London.

I have, &c.,
J. HALL.

No. 9.

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

SIR,— Colonial Secretary's Office, Wellington, 31st December, 1872.

I have the honor to transmit to you the accompanying copy of a letter dated the 26th instant, from Dr. Hector, with enclosed memorandum of suggestions for arrangement of New Zealand exhibits in Vienna, and to request that you will be good enough, as far as you possibly can, to carry out Dr. Hector's suggestions.

I. E. Featherston, Esq., Agent-General
for New Zealand, London.

I have, &c.,
J. HALL.

Enclosure in No. 9.

Dr. HECTOR to the Hon. the COLONIAL SECRETARY.

SIR,—

Christchurch, 26th December, 1872.

I have the honor to report that, in accordance with your instructions, I have, with the assistance of the Judges in the different sections, selected articles from the Exhibition of Colonial Produce, now being held in this city, for transmission to Vienna.

I have also communicated with the owners of the exhibits, and have already in many cases received their consent to the disposal of the articles in this manner.

Arrangements have been made for having the articles shipped by the next Suez Mail direct to Vienna, to the order of the Agent-General, and to have you supplied with a packing list in detail, giving the contents of each package, in time for transmission by the next following San Francisco Mail at latest, together with the bills of lading.

In addition to the exhibits sent from this place, articles have been forwarded direct from Wellington and Auckland; similar lists and bills of lading for which will also be furnished.

The fullest information which can be obtained will be sent with the exhibits in the form of a descriptive catalogue; and I have the honor to enclose a memorandum of suggestions, which may perhaps assist the Agent-General in the arrangement of the New Zealand Court in the Vienna Exhibition.

The Hon. the Colonial Secretary, Wellington.

I have, &c.,

JAMES HECTOR.

Sub-Enclosure to Enclosure in No. 9.

MEMORANDUM of SUGGESTIONS for arrangement of the New Zealand Exhibits in Vienna.

1. *Wool*.—A very extensive and good selection has been made, but only the best fleeces in the case of greasy wools, and a picked sample of about 5 lbs. weight of each variety of washed or scoured wool, will be forwarded. These will be shown to best advantage under glass, and will occupy about fifty compartments, each 30 inches square and 7 inches deep. Some of the finest fleeces may require two compartments.

Each exhibit is to be packed for transmission in a separate calico bag, and marked with the number and reference to a catalogue.

2. *Woollen Goods*.—An extensive series of these will be sent, and might be placed in upright glass cases 6 feet high and 18 inches deep. In this manner they will require about 15 feet of wall space.

3. *Phormium*.—The exhibits in this class will be in the form of—

- (1.) About twenty neat bales of 25 lbs. weight each, showing all the varieties of roping fibre.
- (2.) About thirty coils of rope and cordage.
- (3.) Manufactured articles, European and Maori.

In addition to the above, the Agent-General will be able to send samples of the different applications of the fibre to textile fabrics, paper, &c., which he can procure in London.

The mats and smaller articles might be placed under glass with advantage; but the bales of fibre and coils of rope could be arranged in the form of a trophy that would show them sufficiently well.

4. *Grain*.—Parcels of one peck of each of the best samples of grain, pulse, malt, and flour have been selected, and will require a glass counter case, with about fifty compartments, for their exhibition.

5. *Coals*.—Five large masses of the best varieties of coal of different kinds, obtained from mines which are being worked in the Colony. These should be placed on a raised platform, and each covered with a light glass frame.

6. *Minerals and Ores*.—A series of samples of ores which have been analyzed, and in a few cases worked, has been selected, and will be accompanied with full particulars as to their mode of occurrence and value.

The gold specimens are to be forwarded direct by the Bank of New Zealand.

The exhibits in this section will require glass counter cases 3 feet wide, 14 inches high at the back and 5 at the front, and having a length of about 20 feet. The specimens should be well spaced on a blue ground, and the different groups distinctly separated by black wood beading.

The gold specimens, together with a collection of greenstone and New Zealand gold jewellery, should be placed by themselves in a strong plate-glass case with metal framing, having the form of a truncate pyramid, and so placed that it can be inspected on all sides.

7. *Woods*.—A full selection of timbers will be sent; but as many of them have been cut into shape before they had been well seasoned, and others have been left in the rough so as to season on the voyage, it will be necessary to place the whole collection in the hands of a tradesman to have them cut and polished before they are exhibited. The cross-cuts should be polished on one side and on one end, and the slabs on one side. They will show best in a wall case, under glass.

8. *Miscellaneous Objects*.—Very excellent samples of glue, leather, and soap have been selected, and should be placed under glass. They will require an upright case 20 inches deep, 6 feet high, and 8 feet long.

Preserved Meats.—The best samples have been chosen from the different manufactories, some of which excel in one article but are inferior in others. Cases of each kind will be sent, so that tins may be occasionally opened, and every facility given for their being thoroughly tested. The tins might be placed on a counter in front of a glass case containing hams, bacon, and cheese, of which very fine samples are to be sent. They will require a table 10 by 5 feet.

Native Tanning Barks and Dye Stuffs will occupy a small space in a glass case.

Photographs.—Photographic views, to the number of about eighty, will be sent to illustrate the scenery of New Zealand, and will require to be mounted under glass. A good and inexpensive plan is to place them on a frame like a long music stand, sloping both ways on a level with the observer's eye.

Moa Skeletons.—Dr. Haast has prepared a fine series of these, which will require to be articulated and mounted in the position they are to occupy; and I understand that he will write privately to Dr. Hochstetter on the subject. The skeletons will form a striking centre-piece for the New Zealand Court. Dr. Haast is also sending a fine collection of bird skins, which also will require to be mounted.

Of *Plans and Maps*, only a small number promised have yet been received; but as they can be suspended on walls or back to back, no special permission is required for their exhibition.

I would recommend that skilled draughtsmen should be employed to prepare large-sized explanatory tickets for the principal objects in the English, French, and German languages.

26th December, 1872.

J. HECTOR.

No. 10.

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

SIR,—

Westminster Chambers, Victoria Street, 21st March, 1873.

I have the honor to acknowledge the receipt of your letter of the 31st December last (No. 170), forwarding a memorandum by Dr. Hector relative to the arrangement of the New Zealand collections in the Vienna Exhibition; and to assure you, in reply, that Dr. Hector's suggestions shall have my best attention.

I have, &c.,

I. E. FEATHERSTON,

The Hon. the Colonial Secretary, Wellington, N.Z.

Agent-General.

No. 11.

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

SIR,—

Colonial Secretary's Office, Wellington, 15th January, 1873.

Referring to my letters of the 23rd and 31st December, upon the subject of the transmission to England of articles of New Zealand produce for exhibition at Vienna, I have the honor to inform you that, in consequence of the early date at which it is decided to open the Exhibition, and the delay which has taken place in the departure from the Colony of the sailing vessels, by which it had been intended to forward the more bulky of these articles, the Government have reluctantly found themselves obliged to incur the expense of sending everything by the mail steamer, *via* Suez, which leaves Melbourne on the 31st instant.

The only exception to this is that of the specimens of gold sent through the Bank of New Zealand. These, as you were informed in my letter above referred to, were shipped by the "City of Auckland," sailing from Auckland to London.

The exhibits collected in Auckland are being sent to Sydney for transhipment there, and those from other parts of the Colony go by the "Alhambra" to Melbourne, to be there placed on board the P. and O. steamer.

I enclose schedules of the packages and their contents. All the packages are addressed, "Dr. Featherston, Agent-General for New Zealand, London." Schedule 1 is that of nine cases from Auckland, marked "Vienna Exhibition, Auckland, No. 109." For that you will receive bills of lading from the agent of the P. and O. Company in Sydney.

Schedule 2 contains description of thirty-four packages, shipped from Wellington *via* Melbourne, marked "Vienna Exhibition, No. 1A." You will receive the bills of lading from Messrs. McMeckan, Blackwood, and Co., of Melbourne, whom I have asked to see to their transhipment at that port.

Of this latter shipment, cases Nos. 26, 27, and 28 contain bird skins and other specimens of Natural History, sent by Dr. Haast, of the Canterbury Museum, to Professor Von Hochstetter. It is a matter of great importance that they should be forwarded with the greatest possible despatch, and I have to request that you will have them sent on at once, unopened, to the address of Professor Von Hochstetter, *Polytechnische Institute*, Vienna.

It would also be advisable to enlist the good offices of Professor Von Hochstetter in favour of the New Zealand exhibits. I understand there are many articles in the Museum and other public places of deposit at Vienna which would greatly enhance the appearance of the New Zealand exhibition if they could be obtained on loan; and as Dr. Von Hochstetter still, I believe, takes much interest in New Zealand, he would doubtless, if asked, give valuable assistance to yourself and Sir Charles Clifford at the Exhibition. His services would be especially valuable in the preparation of any portions of the New Zealand Catalogues requiring a scientific knowledge connected with the Colony, and in the revision of the translation of the Catalogue into the German language.

I will address you on a future occasion with regard to the ultimate disposal of the articles exhibited.

It is desirable that no time should be lost in forwarding those packages to Vienna. It will be unnecessary to open any of them in London, as a full descriptive Catalogue will reach you by next San Francisco Mail, which, with the information contained in the Enclosure to my letter of the 31st December, will be sufficient to enable you to order the preparation of the exhibition cases, which should of course be made at Vienna.

I have, &c.,

G. M. WATERHOUSE,
(for the Hon. Colonial Secretary).

I. E. Featherston, Esq., Agent-General
for New Zealand, London.

No. 12.

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

SIR,—

7, Westminster Chambers, Victoria Street, 26th March, 1873.

I have the honor to acknowledge receipt of your letter of 15th January (No. 177), covering a Catalogue of exhibits forwarded from the Colony for the Vienna Universal Exhibition.

The bills of lading for the several packages have come to hand, and I have taken the necessary steps to have them forwarded at once to Vienna.

I am particularly glad to learn that Dr. Haast has contributed some skeletons of the *Dinornis* for exhibition, and I shall lose no time in communicating with Professor Hochstetter, who, as I understand, has agreed to superintend their articulation. I feel sure that these fossil remains will be objects of considerable interest to the general public, and they will form a very appropriate centre-piece for the New Zealand Court.

Now that I have received the detailed Catalogue of the exhibits from the Colony, and can form some idea of the contributions we are likely to receive from Colonists and others resident in this country, I am confirmed in the opinion I have all along entertained, that New Zealand will make a very respectable show at the Exhibition of all Nations, and that our annexe will, on the whole, be very attractive, and will represent very fairly the resources and capabilities of the Colony.

I have, &c.,

I. E. FEATHERSTON,

The Hon. the Colonial Secretary, Wellington.

Agent-General.

No. 13.

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

SIR,—

7, Westminster Chambers,

Victoria Street, Westminster, 29th November, 1872.

I do myself the honor to forward herewith, for the information of the Government, copy of correspondence I have entered into with Professor Hochstetter relative to the Vienna Exhibition.

I invited the learned Professor's co-operation, and received in reply an assurance of his readiness to do everything in his power to advance the interests of the Colony.

I esteem myself fortunate in having secured the good offices of so able a coadjutor in this matter.

I have, &c.,

I. E. FEATHERSTON,

The Hon. the Colonial Secretary, Wellington.

Agent-General.

Enclosure 1 in No. 13.

The AGENT-GENERAL to Professor VON HOCHSTETTER.

SIR,—

7, Westminster Chambers,

Victoria Street, S.W., 15th November, 1872.

When you were on an official visit to New Zealand, in 1858, I had the pleasure, as Superintendent of the Province, of meeting you at Wellington; and, in common with the rest of the colonists, I have felt considerable interest in the results of your scientific researches. I have no doubt that you still feel an interest in the progress of the Colony, and I have therefore ventured to refer to you in a matter in which your assistance would be very valuable.

As arrangements are being made on so magnificent a scale for the International Exhibition at Vienna, it is the desire of the New Zealand Government that the Colony should be well represented on that occasion; and I am now taking such steps as I can to insure this object. From your knowledge of the physical character and resources of the Colony, added to your large general experience, I feel sure that you would be able to assist me very materially with your opinion and advice. I may add that, in complying with this request, you will not only be conferring a favour on myself, but a benefit on the Colony.

Professor F. Von Hochstetter,
Polytechnic Institution, Vienna.

I have, &c.,

I. E. FEATHERSTON.

Enclosure 2 in No. 13.

Professor VON HOCHSTETTER to the AGENT-GENERAL.

(Translation from the German.)

SIR,—

Vienna, 19th November, 1872.

In reply to your letter of the 15th of November, I hasten to assure you that it will be to me both an honor and a pleasure if I can in any way be of service to you with regard to the representation of the Colony of New Zealand in the Vienna Exhibition. I have already been in communication with my friend Haast, in Christchurch, with regard to this matter. Dr. Haast, in his last letter, informs me that he is preparing a collection of samples of flax and wool, &c., for the Exhibition. I shall therefore be glad if you will kindly inform me what steps I should take with regard to New Zealand; I would with pleasure undertake to do anything for a land to whose esteemed inhabitants I am so much indebted.

I presume that the place for the New Zealand Exhibition is included in that assigned to England.

Yours most respectfully,

The Agent-General for New Zealand, London.

Professor D. F. VON HOCHSTETTER.

Enclosure 3 in No. 13.

The AGENT-GENERAL to Professor VON HOCHSTETTER.

7, Westminster Chambers,

Victoria Street, S.W., 27th November, 1872.

SIR,—

I have the honor to acknowledge receipt of your letter of 19th instant, and at the same time to thank you for your promise of cordial co-operation with me in securing an adequate representation of the Colony at the forthcoming Vienna Exhibition.

It will interest me to learn that Dr. Hector and Dr. Haast are preparing a large number of exhibits in the Colony, and that the Government is doing its utmost to secure a proper representation of the industries of the country. These exhibits may be expected to arrive in Europe about April next. Before that date, however, I hope to be in Vienna myself, and shall then do myself the pleasure of calling on you, and consulting you further on this subject.

I have, &c.,

I. E. FEATHERSTON,
Agent-General for New Zealand.Professor Von Hochstetter, &c., &c.,
Polytechnic Institute, Vienna.

No. 14.

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

SIR,—

Westminster Chambers, Victoria Street, 12th April, 1873.

With reference to your letter of 15th January (No. 177), in which you suggest the advisability of my enlisting the good offices of Professor Von Hochstetter in favour of the New Zealand exhibits at the forthcoming Universal Exhibition at Vienna, you will very shortly after the date of that despatch, have received my letters informing you that I had anticipated your wishes, and had received a very prompt assurance from the Professor of his cordial co-operation.

I beg now to forward copies of other letters which I have recently addressed to Professor Hochstetter on subjects connected with the Exhibition.

I have, &c.,

I. E. FEATHERSTON,
Agent-General.

The Hon. the Colonial Secretary, Wellington.

No. 15.

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

SIR,—

7, Westminster Chambers, Victoria Street, 17th April, 1873.

In reply to your letter of the 15th January last (No. 177), I have the honor to report that, in accordance with your instructions, the cases containing Moa skeletons and bird skins for the Vienna Exhibition, were forwarded without loss of time to Professor Von Hochstetter. I feel assured that the Professor will most willingly undertake the task allotted to him of articulating the skeletons, and superintending the mounting of the birds, more especially as no one will be able more fully than himself to appreciate the desire and exertion of his friends and coadjutors in science, Dr. Hector and Dr. Haast, to render the New Zealand Court useful and attractive in a scientific point of view.

I have, &c.,

I. E. FEATHERSTON,
Agent-General.

The Hon. the Colonial Secretary, Wellington.

No. 16.

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

SIR,—

Colonial Secretary's Office, Wellington, 17th January, 1873.

I have the honor to forward herewith a detailed packing list of the articles which were forwarded for the Vienna Exhibition, per "Alhambra," to Melbourne, on the 16th instant, in thirty-four cases, consigned to Messrs. McMeckan, Blackwood and Co., for transmission to your address, per Suez mail, and referred to in my letter (No. 177) of the 16th instant.

I also beg to forward a printed copy of a first draft of a catalogue of the articles which have already been despatched, for the purpose of assisting in the unpacking and arrangement of the specimens.

You will observe that to this catalogue are still to be added the articles for exhibition which have been sent direct from Auckland, and which you are to be advised by Mr. Thomas Kirk of that place, and that these have a separate serial number, though all are marked "Auckland."

The complete catalogue will be forwarded, if possible, by the next San Francisco mail.

Certain maps and plans which have been mentioned in previous memoranda, will not, I regret, be ready for transmission until the March San Francisco mail.

Attached to the catalogue is a marked copy of the printed catalogue of the preliminary exhibition, recently held at Christchurch, and in which reference is made to the numbers and packing cases.

For the information of the judges in the department of wool, copies of the statements sent with exhibits in this class are also attached.

With reference to the grain exhibits, should any discrepancy appear between the catalogue and the tickets in the cases, and the packing list, you are requested to adhere to the information on the tickets.

Insurance has been effected on the cases sent to Melbourne, to the amount of seven hundred pounds; and Messrs. McMeckan, Blackwood, and Co., have been requested to effect a similar insurance on them from Melbourne to London.

I. E. Featherston, Esq., Agent-General
for New Zealand, London.

I have, &c.,
J. HALL.

No. 17.

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

SIR,—
7, Westminster Chambers, Victoria Street, 26th March, 1873.
I have the honor to acknowledge receipt of your letter of the 17th January last (No. 182), transmitting a detailed packing list of the articles for the Vienna Exhibition, forwarded by the Suez mail, and referred to in your letter (No. 177) of the 16th January; also copy of a first draft of a catalogue of the articles despatched, for the purpose of assisting in unpacking and arrangement of the specimens.

I have already forwarded to the Royal British Commissioners a general list of the classes proposed to be represented in the New Zealand Court, for incorporation in the preliminary official catalogue now in course of being printed. A detailed catalogue, forming a guide to the New Zealand Court, and containing full information on every head, will be immediately prepared and published separately, in English, French, and German.

I have, &c.,
I. E. FEATHERSTON,
Agent-General.

The Hon. the Colonial Secretary, Wellington.

No. 18.

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

SIR,—
Colonial Secretary's Office, Wellington, 15th February, 1873.
In continuation of my predecessor's letter (No. 182) of the 17th January ultimo, I have the honor to forward herewith the following additional papers, relative to the Vienna Exhibition, viz. :—

No. 1, a packing list of exhibits sent from Wellington and Christchurch, being a duplicate of list sent to you in my letter of the 17th January ultimo.

No. 2, a descriptive catalogue of the exhibits sent to the Vienna Exhibition from New Zealand, 1873. This is to supersede the catalogue sent by last mail, and is marked with the cases containing the exhibits and suggestions for the manner of exhibition, showing the cases; a corrected copy for printing from is sent separately, and marked No. 3.

A descriptive catalogue of exhibits sent from New Zealand to Vienna Exhibition, 1873, being a corrected copy to be put in the hands of translator into French and German, including a list of packages not yet sent from New Zealand, but which will go by the March mail.

I also enclose twenty spare copies of the descriptive catalogue, to assist those persons who may be intrusted with the unpacking of the cases. These catalogues will also enable you to give effect to the suggestions contained in the last paragraph of a previous memorandum, dated 26th December, 1872, that a skilled draftsman should be employed to prepare large-sized explanatory objects in the English, French, and German languages.

I have also to request you to forward to Sir Charles Clifford and Professor Von Hochstetter, a copy of the descriptive catalogue, as none has been sent to those gentlemen from this office.

I have, &c.,
The Agent-General for New Zealand, London. G. M. WATERHOUSE.

No. 19.

The AGENT-GENERAL to the COLONIAL SECRETARY.

SIR,—
7, Westminster Chambers,
Victoria Street, Westminster, 20th February, 1873.
I have the honor to acknowledge receipt of your telegram of the 3rd instant, advising me of the shipment by the Suez Mail of thirty-six packages for the Vienna Exhibition; and to inform you that all the necessary arrangements have been made for the reception and speedy transmission of the same on their arrival here.

I am glad to be able to report that I see every prospect of being able to supplement the exhibits sent by the Colony, in a very satisfactory manner, by obtaining loans of various articles illustrative of the natural products and industrial progress of New Zealand, from a number of old colonists resident in England.

I have also to report, for the information of the Government, that I have entered into an arrangement with the Agents-General of Victoria and Queensland, to act in concert with them in matters relating to the Exhibition, in order to secure a proper recognition of the Colonies on this occasion.

I have, &c.,
I. E. FEATHERSTON,
Agent-General.

The Hon. the Colonial Secretary.

No. 20.

The Hon. the COLONIAL SECRETARY to the NEW ZEALAND COMMISSIONERS for the VIENNA EXHIBITION.

GENTLEMEN,—

Colonial Secretary's Office, Wellington, 8th April, 1873.

I have the honor to inform you that by the mail which leaves this week, two maps of this Colony have been forwarded to your address, care of Dr. Ferdinand Von Hochstetter, for exhibition at Vienna.

One map is geological, and the other topographical; and I have to request that you will be good enough to have them carefully mounted and varnished, and hung in some prominent position in the New Zealand Department of the Vienna Exhibition.

I have, &c.,
JULIUS VOGEL.

The New Zealand Commissioners of the Vienna Exhibition,
Care of Dr. Ferdinand Von Hochstetter, Vienna.

No. 21.

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

SIR,—

7, Westminster Chambers, Victoria Street, 21st March, 1873.

In continuation of my former correspondence on the subject of the approaching Exhibition at Vienna, I have the honor to forward herewith copy of a circular which I have caused to be printed and distributed among persons resident in this country, who may be able or willing to assist in making the New Zealand Court a proper exposition of the natural resources and industrial progress of the Colony.

I am glad to add that the Commissioners have already received many promises of assistance in the manner indicated.

I have, &c.,
I. E. FEATHERSTON,
Agent-General.

The Hon. the Colonial Secretary, Wellington.

Enclosure in No. 21.

(Circular.)

SIR,—

7, Westminster Chambers,
Victoria Street, Westminster, 1873.

As it is desirable to make New Zealand exhibits at the approaching International Exhibition at Vienna as striking and attractive as possible, we venture to invite your assistance by the loan of pictures, cabinet furniture, or any other objects illustrative of the natural resources or industrial progress of the Colony.

We need hardly add that every care will be taken to insure the safe transmission and proper custody of any articles that you may intrust to us for exhibition.

We are, Sir,
Your obedient servants,
I. E. FEATHERSTON, }
CHARLES CLIFFORD, } Commissioners.

No. 22.

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

SIR,—

7, Westminster Chambers, Victoria Street, 21st March, 1873.

I have the honor to forward herewith, for the information of the Government, copy of correspondence with the Colonial Office relative to the status of the New Zealand Commissioners at the forthcoming Vienna Exhibition.

I have, &c.,
I. E. FEATHERSTON,
Agent-General.

The Hon. the Colonial Secretary, Wellington.

Enclosure 1 in No. 22.

Mr. ROBINSON to Dr. FEATHERSTON.

SIR,—

13, Downing Street, 4th March, 1873.

I am directed to inform you that, in compliance with the desire of the Government of New Zealand, you will be regarded as an officially appointed Commissioner for the Colony at the Vienna Exhibition.

You will be duly accredited and introduced to the Austrian authorities, and every endeavour will be made to render you any assistance you may require in reference to that Exhibition.

I should be obliged if you would inform me whether you propose to be present at the opening of the Exhibition on the 1st May.

A similar letter has been addressed to Sir Charles Clifford.

I am, &c.,
WILLIAM ROBINSON.

Dr. Featherston.
2—H. 5.

Enclosure 2 in No. 22.

Dr. FEATHERSTON to Mr. ROBINSON.

SIR,—
7, Westminster Chambers,
Victoria Street, Westminster, 13th March, 1873.
I have the honor to acknowledge receipt of your letter of the 4th instant, informing me that in compliance with the desire of the Government of New Zealand, Sir Charles Clifford and myself will be regarded as officially appointed Commissioners for that Colony at the Vienna Exhibition, and will be duly accredited and introduced to the Austrian authorities.

In reply, I have the honor to inform you that from a Despatch received from the New Zealand Government, informing me of the appointment of Sir Charles Clifford and myself, it seems to have been contemplated that any commissions issued to us by the Governor of the Colony would be superseded by commissions issued direct from Her Majesty.

I shall therefore feel much obliged by your informing me whether it is the intention of Her Majesty's Government to invest Sir Charles Clifford and myself with the authority of an Imperial Commission, and if not, I venture to ask you to define the exact position we are supposed to occupy as compared with other Commissioners appointed by Royal warrant. But, under any circumstances, it is my intention to be present at the opening of the Exhibition on the 1st May.

William Robinson, Esq., Colonial Office.

I have, &c.,
I. E. FEATHERSTON.

Enclosure 3 in No. 22.

Mr. ROBINSON to Dr. FEATHERSTON.

SIR,—
Downing Street, 17th March, 1873.
I am directed to inform you, in reply to your letter of the 13th March, that it is not the intention of Her Majesty's Commissioners for the Vienna Exhibition to issue Royal warrants to the Commissioners appointed by Colonial Governments to be their representatives at the approaching Exhibition.

On the other hand, it is the desire of the Royal Commissioners, to whom all these appointments have been notified by the Secretary of State for the Colonies, that the Colonial Commissioners should receive every attention and assistance which they may require; and it is their intention that, as far as lies in their power, at the opening ceremony and any subsequent ceremonies in connection with the Exhibition, due regard should be paid to the important position occupied by the several Colonial representatives.

I. E. Featherston, Esq.

I have, &c.,
WILLIAM ROBINSON.

No. 23.

The NEW ZEALAND COMMISSIONERS to the AGENT-GENERAL.

SIR,—
Sydney, New South Wales, 25th February, 1873.
We have the honor to enclose to you bill of lading of 43 cases of curios and 13 coils or packages intended for the Vienna Exhibition, and which have been shipped here on board the P. and O. Co.'s steamer "Mooltan," to be delivered at Venice to you or to your order.
One of the bills of lading we have forwarded to you, addressed, "The Agent-General for New Zealand, *Poste restante*, Venice."

Before this letter reaches you, you will have received a cablegram from us, requesting you to appoint an agent to take delivery of the goods at Venice, and to arrange for their transmission to Vienna.

The Agent-General for New Zealand, London.

We have, &c.,
JULIUS VOGEL.
WILLIAM H. REYNOLDS.

No. 24.

The NEW ZEALAND COMMISSIONERS to the AGENT-GENERAL.

SIR,—
Sydney, New South Wales, 25th February, 1873.
We have already had the honor of addressing to you a letter under this day's date, asking you to arrange for forwarding from Venice certain goods which are intended for the Vienna Exhibition. In that letter we enclosed bill of lading of the goods; we informed you that one of the bills of lading had been addressed "The Agent-General for New Zealand, *Poste restante*, Venice;" and we said that we purposed to telegraph to you on the matter.

Upon further consideration we have resolved not to telegraph; but as, when you receive this, one of the bills of lading will be at the Venice Post Office, you can, if you find that time is pressing, telegraph to some one to obtain it, and to forward the goods to Vienna. Probably, however, you will be able to arrange with the P. and O. Company in London to get the goods forwarded.

We are unable to send an invoice of the goods, since one has not reached us from New Zealand. We are under the impression that particulars may have been sent home to you direct.

The circumstances under which we have taken action are these: The goods arrived here per "Hero" from Auckland, with directions to the P. and O. Company's agent to ship them per Company's

steamer, and the statement that the General Government had arranged as to freight, &c. But no advices on the subject have been received by the Company's agent here or in Melbourne; we have not received any instructions; and, rather than allow the exhibits to arrive too late, we have taken the responsibility of forwarding them, though at the cost of over £120 for freight, &c.

We have, &c.,

JULIUS VOGEL,
WILLIAM H. REYNOLDS.

The Agent-General for New Zealand, London.

No. 25.

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

7, Westminster Chambers,

Victoria Street, Westminster, 16th May, 1873.

SIR,—

I have the honor to acknowledge receipt of your letter of 15th February last, forwarding additional papers relative to the Vienna Exhibition, and giving me further instructions therein.

I have the honor to report, for the information of the Government, that all the cases and packages despatched from the Colony have been safely delivered in Vienna, and that, Mr. Phillips Bevans, the agent employed by the Colonies of Victoria, New Zealand, and Queensland, has received very full instructions as to the best manner of classifying and displaying the various objects. My Co-commissioner, Sir Charles Clifford, who went on to Vienna for the express purpose of being present at the opening of the Exhibition, will see that Mr. Bevan's instructions, so far as New Zealand is concerned, are carried out in a satisfactory manner.

The various suggestions and recommendations contained in Dr. Hector's valuable memoranda, forwarded by the Government, have received very careful consideration, and his proposed arrangement of the New Zealand exhibits (except as regards the too lavish use of glass show-cases) will in the main be adopted.

The appeal made by the Commissioners to Colonists and others resident in this country to assist the undertaking by the loan of pictures, paintings, articles of Colonial-made furniture, specimens of natural history, &c., has been attended with the most satisfactory results. The contributions of this kind are not only very extensive, but many of them are of great value; as, for example, the paintings exhibited by Mr. Larkworthy and Mr. Alexander Brogden, M.P. The Natural History collections, I venture to say, even surpass in extent and interest, those forwarded from the Canterbury Museum. For instance, Mr. James Brogden has in the most liberal spirit agreed to get his collection of about 250 New Zealand birds mounted in the best style of the art, and displayed in plate-glass show-cases, and without putting the Commissioners to any expense whatever.

In pursuance of your instructions, I have employed skilled draftsmen to prepare suitable show-cards (twelve inches square) to accompany all the principal exhibits; each of them having a conspicuous heading to distinguish the Colony, and a concise description of the object, with the name of the exhibitor in English, German, and French.

I have furnished to the Secretary of the British Commission, for embodiment in the preliminary official catalogue, a classified list of the New Zealand exhibits, grouped in the manner indicated in the general circular. But apart from this, I have arranged to have printed a full descriptive catalogue of all the objects in the New Zealand Court in three languages, English, German, and French, and arranged for convenience of reference in the following manner:—

Part I.—List of Exhibits sent from New Zealand to the Vienna Exhibition.

Part II.—List of New Zealand Exhibits sent from England to the Vienna Exhibition.

A careful index will complete this hand list, and I venture to hope that it will not merely render the New Zealand contributions more intelligible and interesting to the general public, but will be of special value to the Colony, as affording a concise exposition of its various resources and products.

I hope to have a proof of the catalogue ready to forward by the present mail; and at the request of the Secretary of the British Commission, I have agreed to furnish copies of it officially for record in the archives of the Exhibition, and in order that it may be made the basis of the jurors' investigation and awards.

As already hinted, I have, in order to reduce the expenditure on fittings, dispensed with some of the glass show-cases recommended by Dr. Hector; for example, I do not propose to exhibit the leather, glue, and other objects of a like kind, under glass. On the other hand, following the example of the other Colonies, I have made an arrangement with Messrs. Sage and Co., by whom all the show-cases are supplied, to take them on hire at a fixed rate, with the option of buying them outright at their original price, in the event of their being afterwards required by the Government for the permanent exhibition of Colonial products at Kensington. On this subject I intend to address the Government at some length by next mail. I apprehend that the ultimate disposal of the fine collections now on view at Vienna (a large portion of which is public property) has already been under the consideration of the Government; and it appears to me that the occasion is an opportune one for determining how far they may be made available in the establishment of a permanent New Zealand Court alongside the other British Colonies in an International Exhibition here.

The steps which I have detailed above, and which appear to me absolutely necessary to render the New Zealand section in the Vienna Exhibition worthy of the Colony, have of course involved a considerable amount of expenditure, and, notwithstanding my best efforts to keep within a fixed limit, the amount placed at my disposal, namely £500, will I fear prove altogether inadequate to our requirements. The translating and printing of the catalogue alone will amount to a very considerable item, and the carriage of exhibits by the Continental routes will amount to a much heavier sum. But these are matters in which my instructions from the Government and the simple necessities of the case leave me no option. I need hardly add that I have hitherto done, and will continue to do, my best to manage the business as economically as possible.

The correspondence with the British Commissioners on a variety of subjects connected with the Exhibition; preparation of catalogues, and correcting the press; the classification of the objects to be exhibited, and the drafting of show cards to accompany them, as well as the collection and transmission of exhibits from this country, have altogether entailed a very large amount of extra work on my department, and, as I have explained in another Despatch, it would have been impossible to carry it through successfully but for the assistance I have received from Mr. Buller.

I have, &c.,

I. E. FEATHERSTON,

Agent-General.

The Hon. the Colonial Secretary, Wellington.

No. 26.

The Hon. Dr. POLLEN to the AGENT-GENERAL.

SIR,—

Colonial Secretary's Office, Wellington, 18th July, 1873.

I have the honor to forward to you herewith a Descriptive Catalogue of Exhibits sent from New Zealand to the Vienna Exhibition of 1873.

I have, &c.,

DANIEL POLLEN.

The Agent-General for New Zealand, London.

No. 27.

Sir CHARLES CLIFFORD to the Hon. the COLONIAL SECRETARY.

DEAR SIR,—

London, 5th June, 1873.

I have had the honor of receiving a letter from you under date 23rd December, 1872, notifying that the Government of New Zealand had appointed Dr. Featherston and myself Commissioners to represent the Colony at the International Exhibition to be opened at Vienna in May, 1873.

Under date 4th March, 1873, I received a letter from the Colonial Office in Downing Street, stating that I should be regarded as an officially appointed Commissioner, and in that capacity be duly accredited and introduced to the Austrian authorities. I afterwards received the official appointment under the Seal of the Colony, dated 1st January, 1873.

I have delayed the acknowledgment of these communications, because it was very doubtful whether my engagements would permit of my performing the duties thus imposed upon me. At the last moment, however, finding that Dr. Featherston's health quite disabled him for so long a railway journey, and that not only New Zealand, but the Colonies generally, would probably be but very thinly represented, I determined to be present at the inauguration.

On my arrival at Vienna, on 29th April, I found the New Zealand Court quite ready to take in the exhibits, and I was informed that most of them had left Trieste by rail on April 24th, but that, owing to the inefficient arrangements of the Austrian railways to meet the increased traffic, they were unlikely to be delivered for some days. I had the honor of explaining this to His Royal Highness the Prince of Wales, who, as President of the British Royal Commission, took an active interest in all that was done. His Royal Highness was quite satisfied that our unpreparedness was in no way the fault of the Colony.

On May 1st the Exhibition was opened in State by the Emperor and Empress of Austria, attended by a large number of distinguished visitors from every quarter of the world. After taking part in the ceremonies of the occasion, the Commissioners were requested to proceed to their respective Courts, to meet the Emperor and Empress on their tour of the building. I had the honor of doing so at the entrance of the New Zealand Court; and although there was nothing at that time to arrest attention, I was gratified to find from the remarks made, that our Colony was exciting much interest.

After this, daily additions made the Court more attractive. Among the earlier arrivals I may mention an admirably arranged collection of the *Phormium tenax*, showing it in every process of manufacture, from the raw leaf into rope and twine of every description; and its other products, from the coarsest sacking to the most perfectly bleached table linen of the finest texture. This was exhibited by Mr. Thorne, and was much noticed. Some fine water-colour drawings of New Zealand coast scenery were also much examined and admired. The specimens of gold, wool, and coal had arrived, and, with the single exception of the Cape of Good Hope, we were far more forward than any other British colony.

It is only right to say, that the appointment of Mr. Phillips Bevan, as the Agent of the Australian and New Zealand Commission, was a most fortunate one. He has a thorough knowledge of his duties, takes great interest in New Zealand, has shown sound taste and judgment in the arrangement of the exhibits, and is quite competent to explain and display them to the utmost advantage. My duties were thus rendered comparatively light and easy.

As the representative of the Colony of New Zealand, I was honored by command to attend dinners given by the Emperor of Austria and the Prince of Wales, and received much hospitality from the Austrian Minister of Commerce, and others of the leading men in Vienna. An opportunity, of which I availed myself, was in this way given me of serving the interests of the Colony, by describing its capabilities to some of the most influential men in Europe.

After a residence of sixteen days in Vienna, having ascertained that the larger proportion of the New Zealand exhibits had arrived, I felt that I could safely leave our Court in the hands of Mr. Bevan. I was less reluctant to return to England as Professor Von Hochstetter had in conversation with me, manifested great anxiety to assist us, and had undertaken to superintend our collections of

specimens in natural history. When he has completed the setting up of the skeletons of the Moas forwarded by Dr. Haast, this will be quite unique of its kind.

The thanks of the Colony are due to Mr. Philip Cunliffe Owen, the indefatigable Secretary to the Royal Commission, for the great pains taken by him to secure every advantage for the Colonies. Indeed, it was through his exertions that I was enabled to be of somewhat more service to New Zealand than might otherwise have been the case.

We are also much indebted for the early attractiveness of our Court to Dr. Featherston and Mr. Buller, who have obtained many articles of importance for exhibition from friends of New Zealand in Great Britain. The careful classification by Dr. Hector of many of the specimens sent direct from the Colony naturally calls for attention, as it increased their educational value, and prevented an otherwise unavoidable loss of time in unpacking and rearranging them.

I left Vienna on May 14th, and returned to England with the strong impression that the New Zealand Court at Vienna would be far from the least interesting part of the most magnificent Exhibition that the world has yet seen.

I may perhaps be allowed to suggest that many articles exhibited by the Government and by individuals, which have little or no intrinsic worth, would be highly valued by museums and scientific societies, and that it would be a graceful recognition of their courtesy to us, as well as useful to the Colony, if they were presented through Professor Von Hochstetter to the various institutions of this kind in Vienna. Botanical, mineralogical, and zoological specimens, and collections of raw material might thus be utilized.

Trusting that I may have fulfilled the honorable duties intrusted to me by the Colony to the satisfaction of the Government,

I have, &c.,

CHARLES CLIFFORD.

The Hon. the Colonial Secretary, Wellington, N.Z.

APPENDIX.

DESCRIPTIVE CATALOGUE

OF

EXHIBITS SENT FROM NEW ZEALAND TO THE VIENNA EXHIBITION, 1873.

COAL.

COLLINGWOOD COMPANY—

Block of Bituminous Coal, Collingwood Mine, Nelson; a first-class steam and gas coal. Cretaceous age. 6 seams, 1 to 4 ft. thick.

J. OAKDEN—

Anthracite Glance Coal, from Acheron River, Canterbury. Altered Brown Coal; Eocene age. 4 ft. seam.

M. B. HART, Christchurch—

Glance Coal (laminated), from Malvern Hills, Canterbury (4 specimens). Altered Brown Coal; Eocene age. 6 ft. seam.

BREFFTON COMMITTEE, AJAX COMPANY, Nelson—

Specimen of Coal. Cretaceous age. 10 ft. seam.

NGAKAWAU COMPANY, Mount Rochfort, Nelson—

Bituminous Coal (caking) (2 specimens). Cretaceous age. 16 ft. seam.

PROVINCIAL GOVERNMENT, Nelson—

Bituminous Coal, from Brunner Mine, Nelson. Cretaceous age. 18 ft. seam.

J. C. ROWLEY—

Pitch Coal, from Shag Point, Otago. Eocene age. 8 ft. seam.

WAIKATO COAL MINING COMPANY, Auckland—

Pitch Coal. 18 ft. seam.

FROM COLONIAL MUSEUM—

Type specimens illustrating the classification of New Zealand Coals.

BITUMINOUS COAL (caking)—

Specimen from Brunner Mine, Nelson.

Much jointed, homogeneous, tender and friable, lustre pitch like, glistening, often iridescent; colour black, with a purple hue; powder brownish, cakes strongly; the best varieties forming a vitreous coke with brilliant metallic lustre; average evaporative power of several samples, $7\frac{1}{2}$ lbs. of boiling water converted into steam for each pound of coal. Occurs with grits and conglomerates of upper Mesozoic age. Buller, Grey, and Collingwood Coal Fields on the West Coast of Nelson, in seams from 2 to 20 feet in thickness.

SEMI-BITUMINOUS COAL—

Specimen from Pakawau, Nelson.

Compact, with laminae of bright and dull coal alternately; fracture irregular; lustre moderate; cakes moderately, or is non-caking. Occurs in thin irregular seams in sandstone of upper Mesozoic age. Kawa Kawa and Wangarei, Auckland; Pakawau, Nelson; Mount Hamilton and Waikava, Otago; rarely cakes strongly; evaporative power commonly $6\frac{1}{2}$ lbs.

GLANCE COAL—

Specimen from Hill's Drive, Selwyn, Canterbury.

Glance coal is non-caking, massive, compact or friable, fracture cuboidal, splintery; lustre glistening or metallic; structure obviously laminated; colour black; does not form a caking coke, but slightly adheres. A variety of brown coal altered by faults or igneous rocks, and presenting every intermediate stage from brown coal to an anthracite. Preservation Inlet and Malvern Hills.

PITCH COAL—

Specimen from Upper Buller, Nelson.

Structure compact; fracture, smooth; conchoidal, jointed in large angular pieces; colour brown or black; lustre waxy; does not desiccate much on exposure, nor is it absorbent of water; burns freely, and contains resin disseminated throughout its mass. Waikato and Wanga-roa, Auckland; West Wanganui, Nelson; Shag Point, Otago; Morley Creek, Southland. Evaporative power 4.2 lbs.

BROWN COAL—

Specimen from Kaitangata, Otago.

Rarely shows vegetable structure. Fracture irregular; conchoidal, with incipient laminations; colour dark brown; lustre feeble; cracks readily on exposure to the atmosphere, losing 5 to 10 per cent. of water, which is not reabsorbed; burns slowly; contains resin in large masses. Occurs generally throughout the Islands; evaporative power 4.2 to 5.6 lbs. Saddle Hill, Otago; evaporative power 5 lbs.

GOLD, MINERALS, AND ORES.

ALLUVIAL GOLD FROM THE PROVINCE OF OTAGO.

1. SKIPPER'S, QUEENSTOWN—

From upper terraces, Skipper's Creek, Shotover River, about 1,400 feet above sea level. The creek empties itself into the Wakatipu Basin. Produce of sluicing claim.

2. ARROWTOWN—

From Arrow River, about 1,200 feet above sea level. The river empties into the Wakatipu Basin. Produce of sluicing claim.

3. QUEENSTOWN—

From gullies adjoining and emptying into Wakatipu Lake, which is 1,000 feet above sea level. Produce of sluicing claim.

4. NASEBY (MOUNT IDA)—

Produce of sluicing claim at foot of Mount Ida, on northern side of Maniototo Plains, about 1,400 feet above sea level.

5. PALMERSTON—

Produce of sluicing claim in Shag Valley, 50 to 100 feet above the sea level.

6. NEVIS—

Produce of sluicing claim about 1,400 feet above sea level.

7. TEVIOT—

Obtained by dredging the River Molyneux, about 350 feet above sea level. Coarser gold is also got at different parts of the river.

8. BLUE SPUR, LAWRENCE—

From sluicing claim. The hill or spur is about 150 feet high, and is an outlier of the Pliocene gravels.

9. MANUHERIKIA—

Sluicing claim, about 500 feet above sea level.

10. TEVIOT—

Near the spot where these two nuggets were got, another weighing 18 oz. was lately obtained. Produce of sluicing claim at an elevation of 600 to 700 feet above sea.

11. Specimen of Blue Spur Cement impregnated with gold.

ALLUVIAL GOLD FROM THE PROVINCE OF NELSON AND COUNTY OF WESTLAND.

1. Alluvial gold from Moonlight Creek, Nelson, procured by washing the beds of creeks.

2. Alluvial gold from Waimea, Westland, obtained by washing beds of creeks. Samples taken from district through which the proposed Great Waimea Water Race would run.

3. Fine sea drift, Okarito, Westland, obtained by washing and sluicing the sea beaches.

4. Alluvial from Ross, Westland, obtained by deep-sinking, where the use of steam machinery is found to be necessary.

5. Equal parts of coarse and fine alluvial from the Lyell, Nelson, obtained by washing the beds of water-courses.
6. Alluvial from Grey Valley, Nelson, obtained by sluicing.
7. Alluvial sluiced from Duke of Edinburgh Terrace, Greenstone Creek, Westland. The locality whence this sample came is traversed by the extensive Greenstone and Eastern Hohonu Water Race.
8. Alluvial from the Ho-ho, Westland, obtained by sluicing ground that had been previously worked by shafts and tunnels.
9. Fine alluvial gold from iron-sand cement, Charleston, Nelson. This sample of gold is usually saved by amalgamation with mercury, and is most difficult to obtain in its present form.
10. Ruby sand from Charleston, Nelson. This sand is found in granite, and the gold it contains is heavier and of better quality than that in cement.
11. Gold-bearing black sand from the Black Lead, Charleston, Nelson.
12. Auriferous cement from Mokihinui River, Nelson, obtained 50 feet below surface of river terrace.
13. Auriferous cement from Black Lead, Charleston, Nelson.
14. Auriferous sand from Addison Flat, Nelson.
15. Mokihinui River, Dufty Creek, obtained from bed of creek by sluicing.
16. Upper Buller, Boatman's Creek. Alluvial gold obtained from tributary of Buller River by sluicing.
17. Lyell District, Lyell Creek. Alluvial gold obtained from tributary of Buller River.
18. Waimungaroa River. Alluvial gold obtained from tributary of Buller River by sluicing, and from the banks.
19. Mokihinui River, Mokihinui. Alluvial gold.
20. German Terrace, five miles from Westport; Ridings and party. Sand and gold obtained from washdirt, after passing through ripple boxes; exhibit taken from plush sheets.
21. Addison's Flat; T. B. Miller. Ruby sand obtained from washdirt.
22. Addison's Flat; T. B. Miller. Rubies obtained from washdirt.

GOLD AS EXPORTED.

1. One Bar of Melted Gold from West Coast, Hokitika, Westland—

	oz. dwts. grs.
<i>Assay.</i> —Gold9627 = Fine Gold ...	9 14 16
Silver0363	
Copper... .0010	
<i>Weight.</i> —10 oz. 2 dwts. 6 grs.	
2. One Bar of Melted Gold from Thames District, Province of Auckland—

	oz. dwts. grs.
<i>Assay.</i> —Gold6565 = Fine Gold ...	6 12 18
Silver3390 = Silver ...	3 8 13
Copper... .0045	
<i>Weight.</i> —10 oz. 2 dwts. 6 grs.	
3. One Bar of Refined Gold, as extracted by Chlorine Refining Process, and as exported by the Bank of New Zealand, Auckland—

	oz. dwts. grs.
<i>Assay.</i> —Gold9942 = Fine Gold ...	9 19 20
Silver0058	
<i>Weight.</i> —10 oz. 1 dwt.	
4. One Bar of Chloride of Silver. The Gold having been separated by the Chlorine Refining Process, the Chloride is reduced to Metallic Silver by the galvanic action of iron plates and acidulated water. *Weight*, 8 oz. 2 dwts. 6 grs., containing 6 oz. of Silver.
5. One Bar of Silver extracted from Thames Gold, Province of Auckland, by Chlorine Refining Process. Very nearly fine Silver, only a trace of Gold left. *Weight*, 10 oz. 4 dwts. 18 grs.
6. Model representing a Bar of Gold, weighing 375 oz., as exported by the Bank of New Zealand, Auckland.

SPECIMENS OF AURIFEROUS QUARTZ FROM THAMES MINES, AUCKLAND.

Specimen of Quartz from Tokatea Gold Mining Company, Coromandel, Auckland District, containing Gold and Silver in alloy. (*Assay* for the Gold in same about '6800, and the remainder mostly Silver.) Native or Metallic Silver, and Chloride of Silver (Horn Silver). The Silver in the latter is entirely lost in extracting the Gold at the batteries, there being no care taken for its preservation. *Weight* of specimen, 74 oz. 7 gr. 18 dwts., and containing about 8 oz. of Gold.

Quartz with Gold from Golden Crown Mine, Thames, Auckland; weight, 21 oz. 9 dwts., containing about 5 oz. of Gold and Silver in alloy. *Assay* for Gold about '6500, remainder of the alloy mostly silver.

Quartz with argentiferous galena from Silver Crown Mine, Thames, Auckland. *Weight*, 15 oz. 4 dwts.

AURIFEROUS QUARTZ, INANGAHUA AND LYELL DISTRICTS, NELSON.

(Collected by the Reefton Committee.)

- VICTORIA COMPANY, REGISTERED.—3 Specimens.
Reef averages 3 feet in thickness. The specimens are taken from a level 360 feet below the highest point proved.
- ALL NATIONS.—1 Specimen.
This reef is making to the south-west, and has an average thickness of 2 feet.
- UNITED BAND OF HOPE COMPANY, REGISTERED.—2 Specimens.
Specimen 1 was taken from the surface where reef first opened. From this about 100 tons of stone crushed gave a return of 2 oz. 6 dwt. per ton. From this level to a depth of 140 feet, about eighty tons crushed gave at the rate of 18 dwt. per ton. No. 2 is from a depth of 160 feet. From this last, thirty-one tons crushed at Westland machine gave a gross yield of 41 oz. melted gold.
- GOLDEN HILL COMPANY.—1 Specimen.
The reef varies from 4 feet to 1 foot 6 inches, average 2 feet 6 inches. About 480 tons of stone crushed at the Westland machine gave a yield of $\frac{1}{2}$ oz. to the ton.
- NORTH STAR COMPANY, REGISTERED.—1 Specimen.
The specimen was taken from a level of 50 feet from the surface, a foot apart across the reef. The reef is 5 feet in width, bearing about E. and W.
- INVINCIBLE GOLD MINING COMPANY, REGISTERED.—1 Specimen.
This specimen is from the surface, at a width of 2 feet apart across the reef, which is here 4 feet 6 inches thick.
- WEALTH OF NATIONS COMPANY, REGISTERED.—2 Specimens.
Two large bodies of stone have been intersected, each about 10 feet thick, showing gold similar to that in the out-crop.
- ENTERPRISE COMPANY, REGISTERED.—6 Specimens.
These specimens were taken from the middle tunnel, at a distance of 110 feet from the mouth of the drive, at a depth of 85 feet from the surface.
- ENERGETIC COMPANY, REGISTERED.—3 Specimens.
The stone was taken,—(1.) From a shaft sunk 85 feet below a tunnel and 210 feet below the surface. A trial crushing in February last of ten tons of this stone gave a result of 43 oz. 1 dwt. retorted gold. (2.) From No. 2 tunnel, 265 feet below the surface, and at a distance of 298 feet from the mouth of the drive, at which place the reef is 4 feet 6 inches thick, and very solid.
- RAINY CREEK COMPANY, REGISTERED.—1 Specimen.
The width of the reef, where discovered, is 30 feet, and it carries this extraordinary width for 900 feet. Gold appears to be well distributed throughout the reef, and at the lower level it is heavier than at the surface.
- THOMPSON'S CLAIM, Boatman's, Inangahua.—1 Specimen.
Shows a width of from 2 to 5 feet, and will yield from 1 to 2 oz. to the ton.
- EL DORADO COMPANY, REGISTERED.—Several small specimens.
The reef, where first opened, was 3 feet in width. Further south it was cut 5 feet in width. The gold is fine, and well distributed through the stone. Zircon, garnets, cubical pyrites, manganese, and sulphides of antimony are also found.
- JUST-IN-TIME COMPANY, REGISTERED.—3 Specimens.
The reef is 3 feet 6 inches wide. Specimens taken 15 feet below the level of the tunnel.
- INGLEWOOD, Kelly's Line N.—
Murray's Creek, Reefton.
- SPECIMENS OF QUARTZ obtained from leader just discovered on Mount Rockfort.
- ALPINE REEF, Lyell.—1 Specimen.
The tunnel now used is situate at an altitude of 1,200 feet above the Lyell Creek. Besides the leaders at present being worked there are three others, averaging from 4 inches to 1 foot, the casing in most places being highly auriferous, and a well defined reef of 5 feet wide, presenting characteristics similar to the leaders. The first crushing of eighty-five tons gave a yield of 860 oz. of melted gold.
- LITTLE WONDER CLAIM, Messrs. Carson and Cairns.
Quartz yielding per last crushing, 10 oz. 9 dwts. to the ton. Area of claim four acres; worked by tunnelling. Reef, 6 inches to 2 feet wide; proved 120 feet. Specimens obtained 70 feet below surface.

GOLDEN CROWN CLAIM.—1 Specimen.

This claim presents similar indications to the Little Wonder.

AURIFEROUS QUARTZ, COLLINGWOOD MINES, NELSON.**PERSEVERANCE MINE.—**

Four rich gold specimens from a reef in tufaceous schist and black slate. Reef where mine is worked lies very flat, and varies from 1 to 7 feet in thickness. Gold is associated with iron and copper pyrites, galena, and zinc-blende.

FROM COLONIAL MUSEUM—**LOGAN'S REEF, Bendigo, Otago—****TURNER'S REEF, Cape Jackson, Marlborough.—2 Specimens.****BRECCIATED QUARTZ REEF (with vein of crystallized quartz), Waipori Bridge, Otago.****SAFFIRED, Collingwood, Nelson—**

Weight 337 grains. Specific gravity, 3.869.

JUNCTION REEF, Moanataiari Creek, Thames—

Specimen containing ores of gold, silver, lead, antimony, copper, and iron.

GOLDEN CROWN REEF, Thames—

Tufanite or Matrix rock traversed by auriferous quartz. 683 oz. of gold per ton.

CALEDONIAN REEF, Thames, Auckland—**HAPE CREEK, Thames—**

Block showing—

- a. Quartz.
- b. Crystals of Quartz.
- c. Mica.
- d. Gold.
- e. Silicate of Copper.
- f. Copper Pyrites.
- g. Oxide of Iron.

AURIFEROUS STIBNITE—Ferruginous sulphide of antimony in auriferous quartz. The pure mineral contains about 72.73 per cent. of antimony, which has a value, when extracted, of about £25 per ton. The specimens from the Thames contain gold in moderate quantity, perhaps sufficient to pay for extraction. The Criterion Claim contains a considerable quantity of this substance, but no regular lode there has yet been announced. This metal is used for compounding several valuable alloys, while some of its compounds have numerous applications in pharmacy.

Stibnite also occurs in the auriferous reefs in Collingwood, at Inangahua, and also as strong lodes in the schist rocks in Otago.

LYELL, Westland—

Gold-bearing quartz.

LYELL REEFS—

Rich gold-bearing quartz (2 specimens).

FERRIFEROUS PLATINUM—**PLATINIFEROUS IRON SAND—**

Colonial Museum. (Orepuki Diggings, North Shore of Foveaux Straits.) Contains about one grain of platina per pound of sand.

Platina separated from above by washing.

Composition.

Platinum with a little iridium	85.37
Iron	13.65
Gold and Quartz	0.98

100.00

MINERALS, ETC., FROM COLONIAL MUSEUM.**MAGNETIC IRON ORES—**

Magnetic Iron Ore, Dun Mountain, Nelson—from a vein 16 inches thick in serpentinous slates.

Magnetic Iron Ore, Wakatipu Lake, Otago—from a vein in mica schists.

Magnetic Iron Ore, Maramara, Frith of Thames—from a vein in ferriferous slates; contains also oxides and titanium of manganese.

Iron Band Ore, Nelson—contains 70 per cent. of iron; also, Wyndham River, Otago, and Manukau, Auckland—formed by the black sand-layers becoming cemented with hematite. This would be a most valuable ore if obtained in large quantities.

Black Iron Sand.—From beach at Taranaki.

Compound of Iron Sand, Ferruginous Earth, and Ground Charcoal.

Iron Sand cemented by heat.

Bloom of Iron.

Bar of crude metal as from the blast furnace.

Bar of crude Titanic Steel.

Bar of Workable Steel.

HÆMATITES—

Specular Iron Ore, Dun Mountain, Nelson—occurs in irregular veins in greenstone rocks; contains 63 per cent. of metallic iron.

Specular Iron Ore, Maori Point, Shotover, Otago—a six-foot vein in mica schist, equally rich with the above; extent unknown. This ore forms the large heavy pebbles known as Black Maori in the auriferous gravels of the diggers.

Compact Iron Ore, D'Urville Island, Nelson—vein, thickness unknown, in diorite slate, with serpentine and chrome, yields 63 per cent. of iron.

Concretionary Hematite or Limonite, Mongonui, Auckland—occurs strewn on the surface from the decomposition of clays, associated with lignite seams; a common ore.

Hematite (about 40 per cent. of iron) Collingwood, Nelson—occurs intermixed with quartz pebbles in a stratum 100 feet thick, exposed over several acres.

Hematite—exhibited by W. Lodder, Auckland.

Hematite, Collingwood—exhibited by Johnston and Louison, Nelson.

Hematite Pigment—exhibited by Johnston and Louison, Nelson.

Ironstone (2 specimens)—exhibited by E. Ford, Christchurch, Canterbury.

Ironstone, Malvern, Canterbury—exhibited by W. Wilson, Christchurch, Canterbury.

Bog Iron Ore, Spring Swamps, Auckland—forms thick layers at the bottom of swamps. Though rich in iron, the ore is inferior, on account of the sulphur and phosphorus it usually contains.

Reniform Iron Ore, Hydrous Hematite, Mongonui.

Carbonaceous Iron Ore with Coal Seams.

CHROME ORES—The pure ore contains 50 per cent. of the chrome oxide, and is worth from £11 to £20 per ton, according to the state of the market. Used for manufacture of pigments and dye salts.

Massive Chromic Iron.

Crystallized Chromic Iron—from irregular lodes in serpentine bands, Dun Mountain, Nelson.

Dunite, interspersed with crystals of Chrome Ore, Dun Mountain, Nelson.

COPPER ORES—

Copper Pyrites.—Mixture of sulphides of copper and iron.

From a lode 3 to 5 feet thick in mica schist, Moke Creek, Wakatipu Lake. The ore is very pure, and contains from 11 to 55 per cent. of metallic copper; the usual average of such ore in Cornwall being only 5 per cent. There is limestone in close vicinity to the lode; so that there would be no difficulty in reducing the ore to a "regulus," in which state it would save cost in shipment.

Grey Sulphide, Wangapeka, Nelson—contains 65 per cent. of copper, together with a little silver and gold.

Cupreous Iron Ore.—In Serpentine, Dun Mountain. Interesting from its being slightly auriferous.

The present value of crude (unrefined) copper is £30 per ton.

Copper Ore.—Decimal Company's Mine, Collingwood, Nelson.

Graphite.—Collingwood, Nelson.

LEAD ORES—

Galena, Wangapeka, Nelson—Sulphide of lead, with quartz that contains also sulphides of iron, and antimony with gold, in veins in felspathic schist. The Galena contains 26 oz. of silver per ton. The gold is only in those parts of the ore that contain pyrites.

Galena, with Zinc Blende, Perseverance Mine, Collingwood, Nelson—occurs in a band 2 to 5 feet thick, parallel with the auriferous quartz veins. These two ores are both pure, but so intermixed in the lode that they could not be reduced separately; 100 tons is being sent to Great Britain to test the value of this ore.

ZINC ORE (Yellow or Horn Blende)—

This ore occurs in the Perseverance Mine, Collingwood, Nelson, and in small quantity in Tararua Creek, Thames, in white cement with auriferous veins. It contains 60 per cent. of metallic zinc, which is worth about £15 per ton.

MANGANESE ORES—

Uses: For generation of chlorine for bleaching purposes; also for calico printing, &c. The value of these common ores is £3 to £4 per ton.

Rhodonite (silicate of manganese), Dunstan, Otago; as rolled masses. Percentage of manganese about 40.

Wad (hydrous oxide), Port Hardy, D'Urville Island, Nelson—Percentage of manganese about 45.

Braunite or Manganese on Malvern Hills, Canterbury—exhibited by E. Ford, Christchurch, Canterbury.

PETROLEUM ROCK OIL—

Oozes from cracks in trachyte breccia, Sugarloaf Point, Taranaki. Wells have been bored to the depth of many hundred feet, but no steady supply of oil has been obtained. Crude oil has a specific gravity of 962·7 at 60°, and yields by fractional distillation oils having the following gravities:—

2 per cent. of oil of sp. gr. ...	874
10 " " " " ...	893
8 " " " " ...	917
60 " " " " ...	941
80	

The kerosene oil of commerce has a density of ·810 to ·820.

This oil is therefore quite unadapted as a substitute for kerosene, but might be used with great advantage as a lubricant.

PETROLEUM—

Waipapu, East Coast of Auckland Province—Crude oil has a specific gravity of ·872 at 58° Fahr.; boiling point, 290° Fahr.; flashing point, 230° Fahr. This oil yields, when distilled, oil as follows:—

Fine lamp oil ...	11·00 per cent. of sp. gr. ...	820
Inferior lamp oil ...	37·75 " " "	853
Lubricating oil ...	25·69 " " "	
Paraffine ...	16·00 " " "	
Bituminous residue	9·36 " " "	

100·00

By repeated rectifications, this oil would probably yield 20 per cent. of lamp oil adapted for consumption in common kerosene lamps. A small sample of oil from the same district had specific gravity ·866, and gave, when twice rectified, 10 per cent. of lamp oil of specific gravity ·819, or at proof, 40°.

PETROLEUM OIL—

Waipawa River, Poverty Bay, Province of Auckland.

STEATITE—

Collingwood, Nelson. Occurs in a large mass or dyke in the Parapara Valley.

MARBLE—

Collingwood, Nelson. Forms a large part of a mountain range, and could be quarried and shipped with facility in blocks of any size.

BUILDING STONE, FIRECLAY, ETC.

AUSTIN AND KIRK, Kowai, Canterbury—
Fireclay, ground.

AUSTIN AND KIRK, Kowai, Canterbury—
Fireclay, "pugged."

WAIKATO COAL MINING COMPANY, Auckland—
Fireclay.

W. WILSON, Christchurch, Canterbury—
Marble for lime, from Upper Malvern, Canterbury.

E. GADD, Hillsborough, Canterbury—
Graystone.

J. D. ENYS, Castle Hill Station, Canterbury—
Stone from Castle Hill, West Coast Road, one side cut with saw, two sides natural state, one side rough-dressed; can be obtained any size.

M. B. HART, Christchurch, Canterbury—
2 Vases, turned from freestone.

Hon. E. GRAY—
Trachyte Dykestone, Banks' Peninsula, Canterbury.

EADIE—
Limestone, Ashley Gorge, Canterbury.

M. B. HART, Christchurch, Canterbury—
Glass Sand, from Ashley Gorge.

GRAIN AND AGRICULTURAL PRODUCE.

J. and T. MEEK, Oamaru, Otago—
One peck Velvet Chaff Wheat.

One peck Tuscan Wheat.

One peck Purple Straw Wheat.

P. CUNNINGHAM and Co., Christchurch, Canterbury—
One peck Wheat.

Ditto.

Ditto (grown by P. B. Luxmore).

Ditto (grown by Parcra Association).

Ditto.

Ditto.

P. CUNNINGHAM and Co., Christchurch, Canterbury—contd.

One peck Wheat.

Ditto (grown by F. Jones).

Ditto.

Ditto.

Ditto (grown by T. Anderson).

Ditto (grown by R. Smith).

Ditto (grown by W. Williams).

Ditto (grown by J. Jones).

Ditto (grown by J. Campion, 67½ lbs. per bushel).

J. H. ROGERS, Canterbury—

One peck Wheat (grown by Exhibitor).

Ditto ditto.

J. N. TOSSWILL, Canterbury—

One peck Wheat (grown by Exhibitor).

W. D. WOOD, Christchurch, Canterbury—

One peck Wheat, Tuscan (grown by Carlton of Riccarton).

Ditto, Imperial (grown by Deans of Riccarton).

Ditto, Suffolk White (grown by Deans of Riccarton).

Ditto, Velvet Chaff (grown by Cameron of Downs).

Ditto, Pearl Chaff (grown by Orr of Hawkins).

Ditto, Hunter's White (grown by Cameron of Saltwater Creek).

W. H. LANE, Christchurch, Canterbury—

One peck Oats.

Ditto.

J. G. BLUETT, Leeston, Canterbury—

One peck Spring Wheat; cut January, 1872.

P. CUNNINGHAM and Co., Christchurch, Canterbury—

One peck Oatmeal; manufactured by E. Steggall, of Southbrook.

J. and T. MEEK, Oamaru, Otago—

One peck Flour.

J. H. ROGERS, Canterbury—

One peck Flour (grown by Exhibitor).

W. D. WOOD, Christchurch, Canterbury—

One peck Flour, from all Tuscan wheat.

Ditto, from mixed wheat.

One peck Sharps.

One peck Flour, from all pearl wheat.

W. H. LANE, Christchurch, Canterbury—

One peck Flour, from all pearl wheat.

One peck Sharps.

G. PANNELL, Christchurch, Canterbury—

One peck Flour.

NEW ZEALAND AGRICULTURAL SOCIETY, Auckland—

Two samples of wheat (grown by James Runciman).

E. W. TRENT, Christchurch, Canterbury—

Samples of Chicory (grown by Exhibitor).

WOOL.

H. P. MURRAY-ANSLEY, Mount Hutt Station, Rakais Gorge, Canterbury—

Exhibit of Merino Fleeces, 6 and 8 tooth male sheep, eleven months' growth, first combing; hot-water washed with Lande's patent soap; weight, 2½ lbs.; average price of previous clips in London, 1s. 9d. to 2s. 5½d.

CANTERBURY AND OTAGO ASSOCIATION, Levels, Canterbury—
Exhibit of Merino Wool, ram hoggetts; first combing; scoured.

ROBERT TINLINE, Ferniehurst, Amuri, Nelson—

Exhibit of Merino Fleeces, ewe hoggetts, fourteen months' growth, first combing; in grease; weight, 6½ lbs.

G. A. ANSTEY, Parnassus, Amuri, Nelson—

Exhibit of Merino Fleeces, ram lambs, fourteen months' growth, first combing; in grease; weight, 5 lbs.

CANTERBURY AND OTAGO ASSOCIATION, Levels, Canterbury—
Exhibit of Merino Fleeces, 4-tooth ewes, twelve months' growth; greasy; weight, 6½ lbs.; average price of previous clips in London, 1s. 3d.

G. A. ANSTEY, Parnassus, Nelson—

Exhibit of Merino Fleeces, 6-tooth ewes, eleven months' growth, first combing; greasy; weight, 5½ lbs.

T. S. TANCRED, Raukapuka, Canterbury—

Exhibit of half-bred Leicester and Merino Fleeces, ewe hoggetts, first cross, thirteen months' growth, first combing; greasy; average price of previous clips in London, 1s. 6d.

S. BEALEY, Hororata, Canterbury—

Exhibit of half-bred Romney Marsh and Merino Fleeces, hoggetts, first cross; greasy; average price of previous clips in London, 1s. 5d. to 2s. 6½d.

- P. C. THELKELD**, Flaxton, Canterbury—
Exhibit of half-bred Lincoln and Leicester Fleeces, 4-tooth and hoggetts, ewes and rams, twelve months' growth; weight, 13½ lbs.; average price of previous clips in London, 1s. 4d.
- ERNEST GRAY**, Huon Hay, Canterbury—
Exhibit of Leicester Fleeces, ewe hoggetts, fifteen months' growth; greasy; weight, 13 lbs.
- T. S. TANCRED**, Ra-kapuka, Canterbury—
Exhibit of half bred Leicester and Merino Fleeces, first cross, ewe hoggetts, thirteen months' growth, first combing; greasy; average price of previous clips in London, 1s. 6d.
- H. J. TANCRED**, Grass Lea Farm, Canterbury—
Exhibit of Romney Marsh and Merino Fleeces, third cross, wethers, twelve months' growth; greasy; weight, 11½ lbs.; price of last year's clip in London, 1s. 6½d. (two qualities).
- H. P. MURRAY-AYNSLEY**, Mount Hutt Station, Canterbury—
Exhibit of Merino Fleeces, ewe hoggetts, fifteen months' growth; hot-water washed; weight over 2 lbs.; average price for previous clips in London, 1s. 9d. to 2s. 5½d.
- JOHN HALL**, Hororata, Canterbury—
Exhibit of Merino Fleeces, ewe hoggetts, fifteen months' growth; cold-water washed; weight, 5 lbs.
- ROBERT CHAPMAN**, Spring Bank, Canterbury—
Exhibit of Merino Fleeces, ewe hoggetts, thirteen and a half months' growth, first combing; cold-water washed; weight, 3½ lbs.; average price of previous clips in London, 1s. 10d.
- MATHERSON'S AGENCY**, Fernside, Canterbury—
Exhibit of Merino Fleeces, 4 to 8-tooth ewes, twelve months' growth; washed.
- H. P. MURRAY-AYNSLEY**, Mount Hutt Station, Canterbury—
Exhibit of Merino Fleeces, ram hoggetts, fifteen months' growth; scoured.
- A. H. CUNNINGHAM**, Rangiora, Canterbury—
Exhibit of Merino Fleeces; scoured.
- NEW ZEALAND AGRICULTURAL SOCIETY**, Auckland—
Long Wool in Grease; 8 hoggett fleeces, Lincoln and Leicester; grown by J. Wallace.
- T. B. GILLIES**, Auckland—
3 Ewe Fleeces, 3 hoggetts; Long Wool in Grease; grown by F. R. Claude.
6 Ewe Fleeces; Long Wool in Grease; grown by J. Wallace.
- L. D. NATHAN AND Co.**, Auckland—
Long Combing Wool; scoured; 2 cases; grown by Reid Brothers, Motutapu.
Long Combing Wool; scoured; 1 case; grown by Middleton, Papakura; assorted and scoured at the Turanga Creek Wool-scouring Works.
- MARCROFT AND AYERS**, Lincoln Road, Canterbury—
21 samples of Long Wool from pure bred Lincoln, Leicester, Cotswold, Romney Marsh, and Rayment breed of sheep, and cross-bred Cotswold 7-8 Leicester; all cold-water washed.

PHORMIUM TENAX, OR NEW ZEALAND FLAX, RAW AND MANUFACTURED.

Cold-Water Dressing.—The leaf of the *Phormium Tenax* on New Zealand Flax, is fed to a machine called a "stripper," at the rate of 100 to 120 feet per minute; the drums of these stripping machines are driven at the rate of 1,000 to 2,000 revolutions per minute, their diameter being from 14 to 20 inches. After passing through the strippers, the partially-cleaned fibre is hand-washed in bundles of about twenty leaves; these bundles are then suspended in water and allowed to soak for about two hours; the fibre is then spread out on the bleaching ground for a time, which varies according to weather, and then hung on lines to dry; it is then either scutched or hackled, or both, packed in bales and pressed for shipment. When the stripper is in good order and the fibre has been fairly cleaned, the loss in scutching amounts to from 3 to 5 cwt. per ton, and in hackling from 2 to 3 cwt.

- REES AND Co.**, Wanganui, Wellington—
One bale, dressed.
- RICHARDSON AND Co.**, Ashley Gorge, Canterbury—
One bale, scutched, £30.
Ditto, hackled, £32 10s.
- CHINERY**, Rangiora, Canterbury—
One bale, bleached and hackled.
Ditto, bleached and scutched.

- DUMERQUE AND PLACE**, Waikuku, Auckland—
B1, bale, stripped, washed, and scutched.
B2, ditto, stripped and washed only.
B3, ditto, stripped, washed, and hackled.
B4, ditto, stripped, washed, and bleached.

HUNT BROTHERS, Auckland—

One bale, dressed

C. GOULTEE, Blenheim, Marlborough—

One bale, dressed.

Ditto, dressed and scutched.

Ditto, ditto.

Ditto, dressed and hackled.

BERRY, PARKER, AND Co., Leithfield, Canterbury—

No. 1. Bale, stripped and washed only.

No. 2. Ditto, stripped, washed, and scutched.

No. 3. Ditto, stripped, washed, scutched, and hackled.

Warm-Water Dressing.—After passing the leaf through the stripper, as in cold-water dressing, the fibre is washed and placed to soak from six to twenty-four hours in tanks filled with warm water, which is kept heated either by means of a fire or a steam pipe; when taken out it is scutched or hackled, or both these operations are performed.

RICHARDSON AND Co., Ashley Gorge, Canterbury—

One bale, stripped, boiled, and hackled, £32.

CHINERY, Rangiora, Canterbury—

One bale boiled and hackled, with sample of Tow from the same.

G. GOULD, Halswell, Canterbury—

No. 1. One bale, stripped, water-scutched, hot-water washed, and machine hackled.

No. 2. Ditto, ditto, with sample of Tow from same.

Maori or Native Dressing.—The Maoris only use a portion of the fibre on one side of the leaf, the leaves being selected with great care. They scrape the leaf with a mussel shell, or a piece of hoop-iron, on the thigh; it is then soaked in cold water and dried.

Some of their very fine samples are obtained from particular varieties of the plant, and then only the youngest and best leaves are used, particular attention being also paid to the manipulation.

BEVAN AND SONS, Wellington—

One bale, Native dressed and hackled.

COLONIAL MUSEUM, Wellington—

Samples of Native-dressed.

One bale very superior ditto.

KINROSS AND Co., Hawke Bay—

Native-dressed Flax.

Manufactured—

BEVAN AND SONS, Wellington—

Assortment of Cords and Twines manufactured from Native-dressed Fibre, by Exhibitor.

KINROSS AND Co., Hawke Bay—

Nine exhibits of Cordage and Twines, made from Maori-dressed fibre.

GRANT AND Co., Otago—

Assortment of Cordage, manufactured by Exhibitors.

AUCKLAND PATENT STEAM ROPE COMPANY, Auckland—

1 coil 6 inch 4 strand white rope.

1 " 6 " 4 " oiled "

2 " 5 " 4 " " "

2 " 4 " 4 " " "

2 " 3½ " 4 " " "

2 " 3 " 3 " " "

2 " 2½ " 3 " " "

1 coil of White Rope.

CANTERBURY FLAX ASSOCIATION, Christchurch, Canterbury—

Assortment of Cordage, tarred and untarred; 7 exhibits.

T. LENNON, Christchurch, Canterbury—

Assortment of Cordage, Ropes, and Twines, manufactured by Exhibitor.

W. COOK, Nelson—

Twelve Exhibits, all manufactured by Exhibitor, viz. :—
Two Hearth-rugs, two Parlour Mats, two Bedroom Mats, four Hall Mats, one Railway Mat, and one Carriage Mat.

SIMONS AND MALCOLM, Nelson—

Two Door Mats.

COLONIAL MUSEUM, Wellington—

10 Maori Mats, viz. :—

1 Flax and Kaka Feathers.

1 Flax and Pigeon Feathers. (*Kereru*.)

1 Flax and Kiwi Feathers. (*Eheruheru*.)

3 Parawai Mats.

1 Piu Piu.

1 Korowai.

1 Pota.

1 Pureke.

Shoes, Apron, Bag, Dyed Fibre, of Maori manufacture.

TARAHORA—

One fancy Mat, Maori manufacture.

NEW ZEALAND WOODS.

WOOD SECTIONS, WITH BARK, FOLIAGE, AND INFLORESCENCE.

AUCKLAND—

Dammara australis, Native name *Kauri*.

By far the most valuable timber in the Colony; used for house-building, ship-building, viaducts, bridges, furniture, machinery, and a great variety of purposes; combines the durability of the red deal of commerce (*Pinus sylvestris*) with the silkiness of Quebec yellow pine (*Pinus strobus*). Peculiar to the Province of Auckland.

Dammara australis, var., *Mottled Kauri*.

Specially valued for ornamental cabinet work.

Libocedrus doniana, Native name *Kawaka*.

A light but durable furniture wood; burns with difficulty.

Podocarpus ferruginea, Native name *Miro*.

Podocarpus spicata, Native name *Matai*.

Valuable furniture woods; the latter especially durable; often used for piles, sleepers, &c.

Podocarpus totara, Native name *Totara*.

Much used for general building purposes, and especially for piles; found throughout the Colony, and next in value to the *Kauri*.

Podocarpus dacrydioides, Native name *Kahikatea*.

White Pine. Much used for inside work.

Dacrydium cupressinum, Native name *Rimu*.

Much used for furniture and ornamental work.

Phyllocladus trichomanoides, Native name *Tanekaha*.

A timber of remarkable toughness, lightness, and durability. Confined to the North Island.

Persea toro, Native name *Toro*.

A fine wood for inlaying.

Elæocarpus dentatus, Native name *Hinau*.

A white wood used for turners' work.

Alectryon excelsum, Native name *Titoki*.

A remarkably tough and durable wood, used for tools and machinery purposes; the seeds yield a fine oil.

Dodonæa viscosa, Native name *Ake-ake*.

Dysoxylum spectabile, Native name *Kohe-kohe*.

Cedar. Used for furniture and ornamental work.

Sophora tetraptera, Native name *Kowhai*.

A timber of great density and durability; used for tools and machinery purposes.

Metrosideros robusta, Native name *Rata*.

An immense tree, the trunk sometimes 15 feet in diameter; remarkable for the peculiar habit of growth in many cases—the seeds are blown by the wind into the masses of astelia and other epiphytic plants in the northern forests, where they vegetate and give out aerial roots, which seek the ground in search of nourishment, ultimately becoming giant trunks and strangling the supporting tree. Wood extremely dense and of great durability; used for shipbuilding. Ironwood of the settlers. Peculiar to the North Island.

Metrosideros tomentosa, Native name *Pohutukawa*.

For knees, ribs, and bent pieces, invaluable to the shipbuilder; surpasses English oak. Confined to the Province of Auckland.

Leptospermum ericoides, Native name *Rawiri*.

Panax crassifolia, Native name *Horoeaka*.

Lancewood.

Olearia cunninghamii, Native name *Wharangipirau*.

Vitex littoralis, Native name *Puriri*.

Resembles *Lignum vitæ*; one of the most durable timbers known; used for piles, machinery, and a great variety of special purposes. Almost confined to the Provinces of Auckland and Taranaki.

Tetranthera calicularis, Native name *Mangiao*.

Remarkably tough and compact; used for ships blocks and similar purposes.

Nesodaphne tarairi, Native name *Tarairi*.

Nesodaphne tawa, Native name *Tawa*.

Used for most of the purposes to which sycamore is applied in Europe.

Olea cunninghamii, Native name *Maire*.

Used as a substitute for boxwood in wood engraving, and for various machinery purposes; hard and durable. Confined to the North Island.

Knightsia excelsa, Native name *Rewa-rewa*.

Makes handsome veneers for cabinet work.

Atherosperma nova-seelandica, Native name *Pukatea*.

Used in boat-building.

AUCKLAND—continued.

Corynocarpus laevigata, Native name *Karaka*.

Olea apetalata, Native name *Black Maire*.

Used as a substitute for boxwood in wood engraving, and for various machinery purposes; hard and durable. Confined to the North Island.

Myrsine australis, Native name *Mapau*.

Myrsine salicina, Native name *Tipau*.

Myrsine salicina, var., *Mapau*.

All furnish handsome veneers.

Hoheria populnea, Native name *Hohere*.

Dracophyllum latifolium, Native name *Nei-nei*.

Much valued for inlaying.

Eugenia maire, Native name *Maire-tawaka*.

Hedycarya dentata, Native name *Porokaiwhiri*.

Fagus fusca, Native name *Tawai*.

A large and durable timber; used for sleepers and similar purposes.

Coprosma arborea, Native name *Karamu*.

WELLINGTON—

Podocarpus, undescribed sp., Native name *Kahikatea*.

Silver or Yellow Pine. Attains a diameter of 3 to 4 feet; wood used for building purposes, and building small boats. Locality—Nelson, S. Island.

Slab of ditto.

Leptospermum ericoides, Native name *Manuka*.

Attains a diameter of 2 to 4 feet; used for piles, fencing, and firewood; old wood very ornamental in cabinet work. Locality, Bluff, S. Island.

Olea cunninghamii, Native name *Black Maire*.

Attains a diameter of 3 to 4 feet; used by the Natives in making implements of war and husbandry; hard, heavy, and durable, and well adapted for cabinet work. Locality, Wellington, N. Island.

Knightsia excelsa, Native name *Rewa-rewa*.

Attains a diameter of 2 to 3 feet; very ornamental in cabinet work. Locality, Wellington, N. Island.

Eugenia maire, Native name *Maire-tawhake*.

Attains a diameter of 2 feet; used by Natives in making implements of husbandry. Locality, Wellington, N. Island.

Nesodaphne tawa, Native name *Tawa*.

Attains a diameter of 2 feet; a clean light wood, much used in making casks for butter. Locality, Wellington, N. Island.

Olearia cunninghamii, Native name *Akewharangi*.

Attains a diameter of 1 to 2 feet; adapted for cabinet work. Locality, Wellington, N. Island.

Myrsine salicina.

Attains a diameter of 1 to 2 feet; adapted for cabinet work. Locality, Wellington, N. Island.

Dysoxylum spectabile, Native name *Kohe-kohe*.

Attains a diameter of 1 to 2 feet; ornamental tree.

Coprosma rotundifolia, Native name *Karamu*.

Attains a diameter of 6 to 8 inches; adapted for cabinet work. Locality, Wellington, N. Island.

Myrtus bullata, Native name *Ramarama*.

Attains a diameter of 6 to 8 inches, adapted for cabinet work. Locality, Wellington, N. Island.

Myrtus pedunculata.

Attains a diameter of 6 to 8 inches; adapted for axe-handles, fencing, &c. Locality, Wellington, N. Island.

Melicope ternata, Native name *Tataka*.

Attains a diameter of 1 foot; an ornamental shrub tree. Locality, Wellington, N. Island.

Piper excelsum, Native name *Kawa-kawa*.

Attains a diameter of 6 to 8 inches; adapted for cabinet work. Locality, Wellington, N. Island.

Drimys axillaris, Native name *Horopilo*.

Attains a diameter of 6 to 8 inches; adapted for cabinet work. Locality, Wellington, N. Island.

Weinmannia racemosa, Native name *Tauhero*.

Attains a diameter of 4 feet; wood close-grained and heavy; bark valuable for tanning. Locality, Wellington, N. Island.

Fagus fusca, Native name *Tawai*.

Attains a diameter of 12 feet; wood used as fence stuff, and for building purposes. Locality, Wellington, N. Island.

Fagus solandri, local name, *Black-heart Birch*.

Attains a diameter of 8 feet; heart wood valuable for piles, posts, or railway sleepers. Locality, Wellington, N. Island.

Panax edgerleyi, Native name *Raukawa*.

Attains a diameter of 2 feet; tree very ornamental. Locality, Wellington, N. Island.

WELLINGTON—continued.

- Dacrydium cupressinum*, Native name *Rimu*.
Attains a diameter of 4 feet; wood valuable for building purposes; heart-wood of old trees adapted for cabinet work. Locality, Wellington, N. Island.
- Myoporum laetum*, Native name *Ngaio*.
Attains a diameter of 12 to 18 inches; an ornamental tree. Locality, Wellington, N. Island.
- Carpodetus serratus*, Native name, *Piripiriwhata*.
Attains a diameter of 12 to 18 inches; an ornamental tree. Locality, Wellington, N. Island.
- Aristotelia racemosa*, Native name *Makomako*.
Attains a diameter of 8 to 12 inches; an ornamental tree. Locality, Wellington, N. Island.
- Melicytus ramiflorus*, Native name *Mahoe*.
Attains a diameter of 2 feet; an ornamental tree. Locality, Wellington, N. Island.
- Olearia traversii*, Native name *Ake*.
Attains a diameter of 12 to 18 inches; wood adapted for cabinet work, free from the attack of insects. Locality, Chatham Islands.
- Senecio huntii*.
Attains a diameter of 6 to 8 inches; ornamental shrub. Locality, Chatham Islands.
- Hedera crassifolia*, Native name *Oho*.
Attains a diameter of 6 to 8 inches; ornamental shrub. Locality, Chatham Islands.
- Myrsine chathamica*, Native name *Matipo*.
Attains a diameter of 1 to 2 feet; ornamental shrub tree. Locality, Chatham Islands.
- Korokia buddleoides*, Native name *Korokiataranga*.
Attains a diameter of 12 to 15 inches; an ornamental shrub. Locality, Chatham Islands.
- Veronica forsteri*, Native name *Koromiko*.
Attains a diameter of 6 to 8 inches; ornamental shrub. Locality, Chatham Islands.
- Coprosma propinqua*, Native name *Karamu*.
Attains a diameter of 6 to 8 inches.
- Dracophyllum urvilleanum*.
Attains a diameter of 6 to 12 inches; adapted for cabinet work. Locality, Chatham Islands.

SOUTH ISLAND—

- Melicytus ramiflorus* (Hini-Hini, Whitewood or Mahoe).
A small tree; wood white, ornamental. Locality, Pigeon Bay, Banks' Peninsula.
- Pittosporum tenuifolium* (Black Mapau or Tarata).
A small tree; wood white, takes a fine polish. Locality, Pigeon Bay, Banks' Peninsula.
- Pittosporum eugenioides* (White Mapau).
Larger than the preceding; wood soft, white, very ornamental. Locality, Pigeon Bay, Banks' Peninsula.
- Pittosporum* (new species).
A small tree, one foot diameter; wood white, rather hard, ornamental. Locality, Otira, Westland.
- Plagianthus betulinus* (Ribbonwood).
A large ornamental quick-growing tree, with very fibrous bark, which might be used for making paper; wood soft, light. Locality, Pigeon Bay.
- Plagianthus lyellii* (Alpine Ribbonwood).
A small tree, with similar properties to the common Ribbonwood. Locality, Arthur's Pass, Westland.
- Elæocarpus hookerianus* (Pokako).
A very large tree, with light soft wood, which is used for cabinet work and sometimes for boats. The bark yields a fine purple dye. Locality, Pigeon Bay.
- Elæocarpus dentatus*, var. (Hinau).
A large tree something like the last, but the wood is lighter and softer. Locality, Otira Junction, Westland.
- Aristotelia racemosa* var. (Mako).
A small tree, with light beautifully marked wood, veneers, &c. Locality, Otira Junction, Westland.
- Pennantia corymbosa* (Kaikomako or Ribbonwood).
A small tree, wood very light, white. Locality, Pigeon Bay, Banks' Peninsula.
- Discaria toumatou* (Wild Irishman).
A small spiny tree, with a fine-grained hard wood, which might be used for veneers. Locality, Bruce's Creek, Waimakariri District, Canterbury.
- Alectryon excelsum* (Titoki).
A strong and valuable though small timber; used for wheels, coach-building, &c., exceedingly durable. Locality, Pigeon Bay, Banks' Peninsula.
- Sophora tetraptera* (Kowhai, Goai).
A very durable and valuable timber, stands well in water; used for cabinet work, axe-handles, and general purposes. Locality, Little River, Canterbury.
- Carpodetus serratus* (Oak, White Matipo).
A small ornamental tree, wood white and tough; used for axe-handles. Locality, Pigeon Bay.

SOUTH ISLAND—continued.

- Weinmannia racemosa* (Karmai, Towhai).
A tall fine tree, producing a very heavy, hard, and durable wood, which will probably be used for various purposes. Locality, Otira Junction.
- Leptospermum scoparium* (Manuka).
A small tree with red wood, which is stronger than any other native timber; used for marine work, &c. Locality, Little River, Canterbury.
- Metrosideros lucida* (Rata).
A strong and very durable timber, will be much used for ship-building and cabinet work. Locality, Arthur's Pass (from small tree).
- Fuchsia excorticata* (Konini, Fuchsia).
A fine tree, with white wood mottled with purple; used for cabinet work. The wood yields a purple dye. Locality, Pigeon Bay, Banks' Peninsula.
- Fuchsia excorticata*.
Locality, Little River, Canterbury.
- Panax crassifolium* (Lancewood).
A large tree, wood tough, light coloured, and durable; might be used in cabinet work. Locality, Pigeon Bay.
- Panax crassifolium*, varieties (Horocka, Lancewood).
A large tree, similar to last. Locality, Otira Junction.
- Panax colensoi* (Ivy tree).
A small ornamental tree, wood soft and tough, yields a yellow resin. Locality, Otira Junction.
- Panax edgerleyi* (Rakawa).
A small tree, with similar properties to the last. Locality, Otira Junction.
- Panax crassifolium* (Lancewood).
Locality, Little River, Canterbury.
- Grisselinia littoralis* (Broadleaf).
A large tree, with hard red hearted timber, which is very durable. Locality, Little River.
- Coprosma linearifolia* (Mingimingi).
A small tree, wood yellow, curiously marked; used for veneers and axe handles. Locality, Little River.
- Olearia forsteri* (Ake-ake).
A small tree about 12 inches diameter, wood dark, heavy, very hard and durable; used for cabinet work. Locality, Little River, Canterbury.
- Olearia ilicifolia*, Holly (Ake-ake).
A small tree, with yellowish wood, not so good as the last. Locality, Arthur's Pass.
- Dracophyllum traversii* (Nei-Nei).
A short, stout, slow-growing tree, of very curious appearance, wood light coloured, beautifully marked, tough, and probably of considerable value. Locality, Arthur's Pass.
- Myrsine urvillei* (Red Mapau).
A small slender tree, wood very beautiful; used for veneers. Locality, Pigeon Bay.
- Myoporum laetum* (Ngaio).
A small ornamental tree, wood light, white, and tough; used for gun stocks. Pigeon Bay, Canterbury.
- Fagus fusca* (large-leaved Birch).
A fine tree, 100 feet high, 3-16 feet diameter, wood red, durable, splits freely; used for all building purposes. Locality, Otira Junction.
- Epicarpurus microphyllus* (Milk tree).
A tall slender tree, exuding a milky sap, wood white, very brittle. Locality, Little River.
- Epicarpurus microphyllus* (Milk tree).
Similar to the last. Locality, Pigeon Bay.
- Libocedrus bidwilli* (Kawaka Cedar).
A small beautiful evergreen tree, wood red, soft hearted; used for cabinet work. Locality, Arthur's Pass.
- Podocarpus ferruginea* (Miro).
Wood used for various purposes, not very durable. Locality, Little River.
- Podocarpus nivalis* (Mountain Totara).
A fine tree, 80 feet high, 3 feet diameter, somewhat like Totara (*Podocarpus totara*), but with smoother bark; wood light red colour, easily worked, and durable; used for houses and bridges, telegraph poles, &c. Locality, Otira Junction.
- Dacrydium cupressinum* (*Rimu*, Red pine).
Locality, Otira Junction.
- Dacrydium colensoi* (Yellow Pine).
A small tree; wood white or yellow, light and soft. Locality, Otira Junction.
- Phyllocladus alpinus* (Toa-toa).
A small alpine pine; wood heavy and durable. Locality, Arthur's Pass, Westland.
- Pennantia corymbosa* (Kaiko-mako).
Locality, Little River.

SOUTH ISLAND—continued.

Panax sp.

Wood soft, white, a small tree. Locality, Little River.

Plagianthus betulinus (Ribbonwood).

Locality, Little River.

T I M B E R.

JAMES HALYDAY—

Board of Kauri (*Dammara australis*), polished.

Board of Mottled Kauri (*Dammara australis*, var.), polished.

WOOD SECTIONS IN THE ROUND.

1. Tawai, *Weinmannia silvicola*.
2. Tawari, *Ixerba brexioides*.
3. Southern Rata, *Metrosideros lucida*.
4. Puriri, *Vitex littoralis*.
5. *Quintinia serrata*.
6. Small Rimu, *Dacrydium*, nov. sp.
7. Toatoa, *Phyllocladus glauca*.
8. Northern Rata, *Metrosideros robusta*.
9. Raukawa, *Panax edgerleyi*.
10. Mangrove, *Avicennia tomentosa*. Furnishes potash in large quantity.
11. Toro, *Persoonia toro*.

MANUFACTURES.

REEVES AND Co., Dunedin—

Cordials and Wines, assorted specimens, manufactured by Exhibitors.

N.Z. DISTILLERY Co., Dunedin—

One case assorted Spirits.

AUCKLAND DISTILLERY—

One case of Spirits.

WHITSON AND SONS—

Two cases of Ales.

M. EHENFIELD, Auckland—

One case of Ales.

MAURICE JOEL, Dunedin—

One half-hogshead of Colonial Ale.

JAMES SMITH, Nelson—

One case Fruit Wines.

J. GILMORE, Christchurch, Canterbury—

Specimen of Cured Provisions:—4 Hams, 4 sides of Bacon.

CANTERBURY MEAT PRESERVING COMPANY—

Assorted samples of Preserved Meats.

A. DORNWELL, Auckland—

Four cases of Preserved Meats:—Tongues, Sausages, &c.

NEW ZEALAND AGRICULTURAL SOCIETY, Auckland—

Cheese, manufactured by H. Andrews.

C. KNIGHT, Nelson—

One Cheese.

T. FISH, Auckland—

One case Extract of Sarsaparilla.

AUSTIN AND KIBE, Christchurch—

4 Flower Pots, 5 Drain Pipes, 1 Garden Border, 3 Pickle Jars, large and small Floor Tiles, Fire Bricks, common Pressed Bricks—all made from Malvern Hills Fireclay, Canterbury.

A. J. BURNS AND Co., Mosgiel, Otago—

Sundry exhibits of Goods manufactured by the Exhibitors at the Mosgiel Woollen Mills, Otago:—1 Blanket, No. 100, 10-4, 11½ lbs.; Plaiding, No. D59, 5 yards; do., No. A158, do.; do., No. D102, do.; do., No. D113, do.; do., No. D120, do.; Tweed, No. A363, do.; do., No. J385, do.; do., No. A342, do.; do., No. B388, do.; do., No. B390, do.; do., No. D429, do.; do., No. B311, do.; do., No. J404, do.; do., No. D439, 12 yards; do., No. A451, do.; do., No. A457, do.; 1 Undershirt, coloured, size 00; 1 do., white, size 00; 1 do., serge; 1 do., do., silk mounted; 1 pair Pants, coloured, size 00; 1 do., do., ribbed, size, 000; 1 do., do., white, size 0; 1 do., Drawers, white serge; 1 do., do., silk mounted; 1 do., Ladies' Drawers; 1 do., do., silk mounted; 1 Plaid, No. 41, 7 lbs.; Tweed, No. A458, 12 yards; do., No. C459, do.; do., No. D460, do.; do., No. B461, do.; do., No. E462, do.; do., No. 499, do.; Yarn, No. 18, priest grey, 2 cuts; do., No. 20, dark brown, do.; do., No. 17, medium grey, do.; do. No. 16, light grey, do.; do., No. 19, light brown, do.; do., No. 21, white, do.; Fingering Yarn, No. 22, white, do.; do., No. 23, light brown, 4 cuts; do., No. 24, light grey, do.; Socks, size 00, 1 pair; do., size 00, 1 pair; do., size 0, 1 pair; do., size 0, 1 pair; do., size 0, 1 pair; Stockings, white, size 00, 1 pair; do., children's, size 00, 1 pair; do., coloured, size 00, 1 pair.

WEBLEY BROTHERS, Nelson—

Samples of Tweeds, manufactured by Exhibitors:—No. 73, 14½ yards, at 5s. 3d.; No. 55, 26½ yards, at 5s. 3d.; No. 57, 16½ yards, at 5s. 3d.; No. 10, 25½ yards, at 5s. 3d.; No. 25, 21 yards, at 5s. 3d.; No. 40, 25½ yards, at 5s. 3d.; No. 101, 21½ yards, at 5s. 3d.; No. 69, 26½ yards, at 5s. 3d.; No. 79, 20½ yards, at 4s. 9d.; No. 89, 18½ yards, at 4s. 9d.

Also, a bale contents unknown.

T. WILSON, Heathcote Tannery, Canterbury—

Samples Colonial Leather—Harness Maker's Leather: 1 side Black Harness Leather, 1 side Brown Harness Leather, 1 side Bridle Leather, 1 side Bag Leather, 1 side Belt Leather, 2 Pig Skins (coloured), 2 Pig Skins (plain). Shoemakers' Leather: 2 Crop Butts; Basils (plain), 2 Strained Basils (can be supplied at 16s. per dozen), 2 soft Basils (can be supplied at 14s. per dozen), 2 Lining Basils (can be supplied at 16s. per dozen), and 10 Basils (coloured), can be supplied at 36s. per dozen. All manufactured by Exhibitor.

THOMAS WILSON, Heathcote, Canterbury—

11 Coloured Lamb Skin Mats; 1 White Lamb Skin Mat.

BÆNICKE, Kaikora Glue Works, Otago—

1 case Glue, manufactured by Exhibitor.

MCLEOD, ROBINSON, AND MCLEOD, Otago—

2 cases Toilet and Household Soap, manufactured by Exhibitors.

JEWELLERY.

KOHNS AND SONS, Auckland—

Greenstone and Quartz Jewellery, Colonial-made:—3 sets Brooch and Earrings, Greenstone or Jade and Gold Quartz inlaid; 1 set Brooch and Earrings, Carnelian inlaid; 6 single Greenstone Drops; 4 Greenstone and Quartz for Brooches; 2 Greenstone Books and 1 Greenstone Heart; 3 Greenstone Brooch Stones; 3 pairs Greenstone Earrings; 3 Greenstone Maltese Crosses; 1 set Greenstone Sleeve-links; 1 set Quartz, 6 pieces; 1 set Quartz, Greenstone inlaid; 1 set Greenstones; 4 Stones for Pins; 2 sets Quartz Brooch and Earrings, Gold mounted; 1 pair Quartz Earrings; 1 set Quartz Solitaires and Studs, 6 pieces; 1 set Greenstone Solitaires and Studs, 6 pieces; 2 Greenstone and Quartz Brooches; 3 Greenstone Locketts; 6 Greenstone Brooches and Earrings; 2 pairs Greenstone Earrings; 2 Greenstone Brooches; 11 Greenstone Crosses; 2 Greenstone Maltese Crosses; 3 Greenstone Hearts; 1 Greenstone Locket; 2 Greenstone Books; 6 Greenstone Albert Chain Drops; 1 piece Greenstone in natural state.

FINE ARTS.

PHOTOGRAPHS by D. L. MUNDY. Mostly consisting of North Island Scenery.

1. Patuka, or Store House, at Waihi, head of Lake Taupo.
2. A Digger's Home, Ponga Flat, Thames Gold Fields.
3. Wellington, from the Cemetery.
4. Government House, Wellington.
5. River Bed Scene on the Waipawa River, Poverty Bay.
6. Flax Mills at Hokianga Heads.
7. A Geological Study at Opoke, Hokianga, on the sea shore (measures 40 feet round).
8. Carved Panel from the Maori House, Colonial Museum, Wellington.
9. Victoria, Bay of Islands, where the Treaty of Waitangi was signed in 1842.
10. Momona Bay, Kawau, the Island Home of Sir George Grey, K.C.B.
11. Kororareka, or Russell, Bay of Islands.
12. Study of a Flax Bush (*Phormium tenax*) on the Waikiri River, Hokianga.
13. The Interior of a Native Pa at Kaitereria, Roto-kakahi.
14. Teheki, head of the Waima River, Hokianga.
15. The Great Fern Trees of New Zealand at Onoke, Hokianga (40 feet in height).
16. A Forest Scene, showing the Nikau Palms at Onoke, Hokianga.

PHOTOGRAPHS by D. L. MUNDY—continued.

17. A Study of the Great Mamuka or Ponga Tree Fern, on Ponga Flat, 1,200 feet above the Thames Gold Fields, the River Thames in the distance.
 18. Ohinemutu Rotorua—the commencement of the Hot Springs District, with Native Village or Kainga.
 19. Rotokakahi, near Rotomahana.
 20. Roto Tarawera, near Rotomahana.
 21. Tokanui, head of Lake Taupo, showing the Geysers.
 22. Roto Pounamu, Rotomahana, or Cold Green Lake, showing the steam holes in the Hot Taupes.
 23. Fumaroles, or Boiling Mud Cones, Rotomahana.
 24. General View of Rotomahana, looking east.
 25. General View of Rotomahana, looking west.
 26. The Te Tarata Geyser, Rotomahana.
 27. The Otukapuarangi or Pink Terrace, Rotomahana.
 28. Side View of the Te Tarata Terraces, Rotomahana.
 29. Side View of the Pink Terrace, Rotomahana, showing the great Stalactite Terraces.
 30. The Te Tarata Terrace, Rotomahana, looking down on the Lake from the Crater.
 31. The Crystal Slope of the Te Kiwi Geyser, Rotomahana.
 32. Captain Cook's Bay, where he took the transit of Mercury, November 9th, 1769.
 33. Cabbage Tree Palms, Governor's Bay, Canterbury.
 34. Dyer's Pass Road, Head of Lyttelton Harbour.
 35. Government Buildings, Christchurch, Canterbury.
 36. Craigieburn Cutting, West Coast Road, Canterbury.
 37. Study on the Otira River, Southern Alps, Canterbury.
 38. The Bealey River Bed, Canterbury.
 39. The Rolleston Range, with Glacier, Arthur's Pass, Canterbury.
 40. Summit of Arthur's Pass, Westland, looking west.
 41. Summit of Arthur's Pass, Westland, looking east.
 42. Looking through the Forest on the Teremakau River.
 43. On the Teremakau River Bed, Westland.
 44. In the Kahikatea, or White Pine Forest, Westland.
 45. An Hotel on the Gold Fields near Fox's Diggings, Westland.
 46. White Pine Forest, West Coast Road, Canterbury.
 47. Thames Gold Field, from top of Moanataiari Tramway, 1,200 feet above the sea.
 48. Akaroa Bay, Banks Peninsula, Canterbury.
- W. COLLIE, of Marlborough—Photographs.
49. Scenery of the Wairau Massacre.
 50. Ditto ditto.
 51. Ditto ditto.
 52. White's Bay, Landing Place of Cook Strait Telegraph Cable.
 53. Flax Mills and Bleaching Ground, Massacre Hill, Province of Marlborough.
 54. Picton (Evening), Province of Marlborough.
 55. Massacre Hill, Province of Marlborough, wild *Phormium* in foreground.
 56. Monument at the Graves on Massacre Hill.
- W. T. L. TRAYERS, 12 Photographs of New Zealand Scenery—Lake Guyon and Creek scenes, Nelson Province, South Island.
- W. N. BLAIB, C.E., 3 Photographs, Rangitata Bridge, Canterbury.
- GENERAL GOVERNMENT—
Eleven Photographs of Thames Gold Fields, Auckland.

MISCELLANEOUS.

LUKE NATTRASS, Nelson—

Sketch to exhibit the use of a new pigment chemically extracted from the Hinau Tree (*Elæocarpus*). A specimen of this has been exposed to the light for seven years without showing any change or fading.

B. WALKER AND CO., Auckland—
Exhibits of Kauri Gum.

COMBES AND DALDY, Auckland—

Four cases of Kauri Gum. Samples from bulk sent to London.

BROWN AND CAMPBELL, Auckland—

Kauri Gum, as assorted for the London market. Nos. 1, 2, and 3.

OWEN AND GRAHAM, Auckland—

Kauri Gum, as assorted for the London market. Nos. 1, 2, and 3.

HENDERSON AND MACFARLANE, Auckland—

Kauri Gum, as assorted for the London market. Nos. 1, 2, 3, and 4.

R. NAGER, Raglan, Auckland—

Fungus (*Hirneola polytricha*), used as food by the Chinese. Largely exported from the Colony.

AUCKLAND MUSEUM—

Footprint of Moa, from Poverty Bay, Auckland.

T. L. WHITE, Auckland—

Inlaid Cabinet, made of New Zealand woods, especially comprising kinds peculiar to the North Island, made by Seuffert. Price £100.

G. HOLDSHIP AND COMPANY, Auckland—

One 2-inch Moulded and Panelled Door, one 1½-inch ditto, two pairs of Sashes, one case of Mouldings.

GENERAL GOVERNMENT—

Table made of Mottled Kauri.

Kowhara (leaves of *Astelia*). A first-class material for the manufacture of paper.

D. NAIRN, Christchurch—

Six varieties of Silk; the yellow silk is Chinese, the white silk is Indian, the small sample is Japanese; showing the new process of drying in the sun for export; grown and dried by Exhibitor.

MISS EMILY GEORGE, Taranaki—

Exhibit of Silk.

DR. HAAST, F.R.S., Canterbury Museum—

1. Geological Section of the Moorhouse Tunnel through the Caldera wall of Lyttelton Harbour, Banks Peninsula, Province of Canterbury. Scale horizontal and vertical, 200 feet to 1 inch.

2. Geological detail Section of the Moorhouse Tunnel on the Lyttelton and Christchurch Railway, Canterbury. Scale horizontal and vertical, 20 feet to 1 inch; Engineering details by Edward Dobson, C.E., Provincial Engineer.

3. Reconnaissance Map of the Interior of the Province of Canterbury (the Southern Alps). Scale 4 miles to 1 inch.

4. Geological Map of the Malvern Hills, Canterbury. Scale 1 mile to 1 inch.

GENERAL GOVERNMENT—

Topographical Map of New Zealand, on scale of 12 miles to 1 inch, showing surface features, forests, railways, telegraphs, roads, and other public works, political and tribal boundaries, &c. Compiled from official information in the Public Works Department, by Auguste Koch.

Geological Map of New Zealand, on scale of 12 miles to 1 inch, showing the distribution of the formations, illustrated by 12 geological sections through different parts of the islands. Compiled by James Hector, M.D., F.R.S., Director of the Geological Survey of New Zealand, from official information in the Geological Survey Department, and drawn by Auguste Koch.

Map of Thames Gold Field, 14 feet by 7 feet.

Panorama of the Thames Gold Field, as seen from the sea, 15 feet by 2 feet.

DR. HAAST, F.R.S., Canterbury Museum—

Skeletons of Moas—(1) *Dinornis giganteus*, (2) *Dinornis didiformis*, (3) *Palapteryx elephantopus*.

Case of New Zealand Birds.

- 1 *Circus assimilis*, Harrier, Kahu.
- 2 *Halcyon sanctus*, Kingfisher, Kotare.
- 2 *Prothemadera novæ-zealandiæ*, Parson Bird, Tui.
- 2 *Anthornis melanura*, Bell Bird or Mocker, Moko-moko.
- 2 *Zosterops lateralis*, Blight Bird or White Eye, Tauhou.
- 2 *Acanthisitta chloris*, Creeper, Titipounamu.
- 2 *Orthonyx ochrocephala*, Canary or Yellow Head, Popokatea.
- 2 *Petroica albifrons*, Wood Robin.
- 2 *Certhiparus novæ-zealandiæ*, Brown Creeper, Toitoti.
- 2 *Rhipidura tristis*, Black Fantail, Tiwakawaka.
- 2 *Glaucopsis cinerea*, Orange-wattled Crow.
- 1 *Stringops habroptilus*, Ground Parrot, Kakapo.
- 1 *Platycercus novæ-zealandiæ*, Crimson-top Paroquet, Kakariki.
- 2 *Platycercus auriceps*, Yellow-top Paroquet, Kakariki.
- 2 *Carpophaga novæ-zealandiæ*, Wood Pigeon, Kereru or Kuku.
- 1 *Apteryx australis*, Brown Kiwi or Rowi.
- 2 *Apteryx oweni*, Gray Kiwi.
- 2 *Charadrius obscurus*, Red-breasted Plover, Tuturiwhata.
- 2 *Charadrius bicinctus*, Dotterel, Pohowera.
- 2 *Anarhynchus frontalis*, Crook-bill Plover.
- 2 *Hamatopus longirostris*, Pied Oyster-catcher, or Red-bill, Torea.
- 2 *Hamatopus leucocephalus*, Pied Stilt, Poaka.
- 2 *Himantopus melas*, Black Stilt.
- 2 *Porphyrio melanotus*, Swamp Hen, Pukeko.
- 2 *Casarca variegata*, Paradise Duck, Putangitangi.

New Zealand Birds—continued.

- 1 *Anas superciliosa*, Gray Duck, Parera.
- 1 *Fuligula nova-zealandica*, Black Teal, Papango.
- 1 *Rhyncaspis variegata*, Shoveller Duck.
- 1 *Larus dominicanus*, Black-backed Gull, Karoro.
- 1 *Larus melanorhynchus*, Black-billed Gull.
- 1 *Sterna frontalis*, Sea Swallow, Tara.
- 2 *Sterna antarctica*, Common Tern.
- 2 *Sterna nereis*, Little Tern.
- 2 *Graculus punctatus*, Spotted Shag, Kawau.
- 2 *Rhipidura flabellifera*, Pied Fantail, Piwakawaka.

COLONIAL MUSEUM—Tan Barks native to New Zealand.

- Wood of *Fuchsia excorticata*, Native name *Kotukutuku*; percentage of tannin, 5.3.
- Bark of *Eugenia maire*, Native name *Whawhako*; percentage of tannin, 16.7.
- Bark of *Elaeocarpus hookerianus*, Native name *Pokako*; percentage of tannin, 9.8.
- Bark of *Coriaria ruscifolia*, Native name *Tutu*; percentage of tannin, 16.8.
- Bark of *Knightia excelsa*, Native name *Rewarewa*; percentage of tannin, 2.7.
- Bark of *Elaeocarpus dentatus*, Native name *Kiri-Hinau*; percentage of tannin, 21.8.
- Bark of *Weinmannia racemosa*, Native name *Tawheri*; percentage of tannin, 12.7.
- Bark of *Myrsine urvillei*, Native name *Mapau*; percentage of tannin, 1.4.

COLONIAL MUSEUM—continued.

Bark of *Phyllocladus trichomanoides*, Native name *Kiri-Toa-Toa*; percentage of tannin, 23.2.

Bark of *Hoheria populnea*, var. *angustifolia*.

Hirneola auricula-Juda, Ear Fungus; exported largely to China by Chinese emigrants.

Leaves of *Celmisia coriacea*, Native name *Tikummu*; hills of South Island.

W. S. GRAYLING, Taranaki—

Two samples of Extracts of *Hinau* and *Towai*.

The *Hinau* is a large forest tree, abundantly diffused throughout most parts of New Zealand. The bark has been successfully used in tanning operations. The Natives also use it in producing the beautiful black dye for their flax work; for which purpose the bark is first bruised, and boiled for a short time. When cold, the flax is put into the mixture, where it is left for two days, after which it is taken out and steeped thoroughly for two days in red swamp mud rich in peroxide of iron, when it is removed and dried in the sun. The *Hinau* can be used in the manufacture of ink, by dissolving a small quantity of the extract in water, and adding a little rust of iron. As it contains neither corrosive acid nor gum, the pen is neither injured nor clogged. The extract of *Hinau* can also be used instead of logwood.

The extract of *Towai* is much more astringent than that of *Hinau*, and needs only to be introduced to be accepted by the tanners.