

1880.

NEW ZEALAND.

COLONIAL INDUSTRIES COMMISSION

(REPORT OF THE).

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

COMMISSION.

HERCULES ROBINSON, Governor.

VICTORIA, by the grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, and so forth: To our trusty and loving subjects, JAMES WALKER BAIN, of Invercargill, Esquire; ARTHUR JOHN BURNS, of Westport, Esquire; WILLIAM ARCHIBALD MURRAY, of Waitahuna, Esquire; THEODORE FREDERICK SANDBACH TINNE, of Auckland, Esquire; and EDWARD WAKEFIELD, of Timaru, Esquire; all in our Colony of New Zealand, greeting:

WHEREAS the Governor of our said colony hath, by and with the advice and consent of the Executive Council thereof, deemed it expedient that a Commission should be forthwith issued for the purposes and in the manner hereinafter set forth:

Now, therefore, know ye that we, reposing great trust and confidence in your zeal, knowledge, and ability, do, by these presents, constitute and appoint you, the said

JAMES WALKER BAIN,
ARTHUR JOHN BURNS,
WILLIAM ARCHIBALD MURRAY,
THEODORE FREDERICK SANDBACH TINNE, and
EDWARD WAKEFIELD,

to be our Commissioners for the purpose of inquiring whether any industries or manufactures that are or hereafter may be prosecuted or carried on in our said colony should be in any manner promoted or aided by the Government, and to examine into the best means of so aiding or promoting any such local industries or manufactures, having due regard to the circumstances of our said colony.

And for the better enabling you to carry these presents into effect, we do authorize and empower you, or any three or more of you, to make and conduct any inquiry under these presents, at such place or places in the colony as you may deem expedient, and to call before you such persons or person as you may judge necessary, by whom you may be better informed of the matters herein submitted for your consideration, and also to call for and examine all such records, accounts, books, documents, and papers as you shall judge likely to afford you the fullest information on the subject of this our Commission, and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And our further will and pleasure is that you, or any three or more of you, do report to us, under your hands and seals (with as little delay as may be consistent with a due discharge of the duties hereby imposed upon you), your opinion on the several matters herein submitted for your consideration, with power to certify unto us from time to time your several proceedings in respect of any of the matters aforesaid if it may seem expedient for you so to do.

And we do further declare that this our Commission shall continue in full force and virtue, and that you, our said Commissioners, or any three or more of you, shall and may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

In testimony whereof we have caused these our letters to be made patent, and the seal of the said colony to be hereunto affixed.

Witness our trusty and well-beloved Sir Hercules George Robert Robinson, Knight Grand Cross of our Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief in and over our Colony of New Zealand and its Dependencies, and Vice-Admiral of the same; and issued under the Seal of the said Colony, at Wellington, this twelfth day of March, in the year of our Lord one thousand eight hundred and eighty, and in the forty-third year of our reign.

JOHN HALL.

Issued by the Governor in Council.

FORSTER GORING.

Clerk of the Executive Council,

1—H. 22.

VICTORIA, by the grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith: To our trusty and loving subject, EDWARD CEPHAS JOHN STEVENS, of Christchurch, Esquire, greeting:

WHEREAS by our Royal Letters Patent, bearing date the twelfth day of March, one thousand eight hundred and eighty, issued under the seal of our Colony of New Zealand, we did constitute and appoint JAMES WALKER BAIN, WILLIAM ARCHIBALD MURRAY, THEODORE FREDERICK SANDBACH TINNE, ARTHUR JOHN BURNS, and EDWARD WAKEFIELD to be Commissioners for the purpose of inquiring whether any industries or manufactures that are, or hereafter may be, prosecuted or carried on in our said colony should be in any manner promoted or aided by the Government, and to examine into the best means of so aiding or promoting any such local industries or manufactures, having due regard to the circumstances of our said colony:

Now therefore know ye that we, reposing great trust and confidence in your zeal, knowledge, and ability, do by these presents constitute and appoint you the said Edward Cephas John Stevens to be a Commissioner, along with the Commissioners hereinbefore mentioned, for all the purposes, and with all the same powers, authorities, and subject to all the same duties, as are in and by our said Royal Letters Patent mentioned, conferred, or imposed upon the said Commissioners.

Witness our trusty and well-beloved Sir Hercules George Robert Robinson, Knight Grand Cross of our Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief in and over our Colony of New Zealand and its Dependencies, and Vice-Admiral of the same; and issued under the Seal of our said Colony, at Wellington, this thirteenth day of April, in the year of our Lord one thousand eight hundred and eighty, and in the forty-third year of our reign.

HERCULES ROBINSON.

JOHN HALL.

Issued by the Governor in Council.
FORSTER GORING,
Clerk of the Executive Council.

REPORTS OF COLONIAL INDUSTRIES COMMISSION.

INTERIM REPORT.

To His Excellency Sir HERCULES GEORGE ROBERT ROBINSON, G.C.M.G.,
Governor of New Zealand, &c.

THE Royal Commission on Local Industries have the honour to make the following interim recommendation :—

The Commission have ascertained that wine of good quality is produced in various parts of the colony, and that, but for the restrictions placed upon it by the existing licensing laws, this industry is likely to grow to considerable proportions.

They find, however, that no provision being made by the law for retailing colonial wine, except by obtaining a publichouse license, the trade is practically suppressed.

They are of opinion that it ought to be encouraged, both on the ground of its affording remunerative occupation in a new branch of agriculture, and on that of its supplying the public with a cheap and wholesome beverage.

They therefore have the honor to recommend that special facilities should be provided in the Licensing Bill now before Parliament for the sale of New Zealand wines by retail or for consumption on the premises.

EDWARD WAKEFIELD,
Chairman.

4th June, 1880.

FINAL REPORT.

To His Excellency Sir HERCULES GEORGE ROBERT ROBINSON, Knight Grand Cross of Saint Michael and Saint George, Governor and Commander-in-Chief in and over the Colony of New Zealand, and Vice-Admiral of the same.

WE, the undersigned Commissioners, appointed by virtue of a Commission in the name of Her Majesty Queen Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, witnessed by His Excellency Sir Hercules George Robert Robinson, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief in and over the Colony of New Zealand and its Dependencies, and Vice-Admiral of the same, and dated the 12th day of March, 1880, to inquire whether any industries or manufactures that are or hereafter may be prosecuted or carried on in the said colony, should be in any manner promoted or aided by the Government, and to examine into the best means of so aiding or promoting any such local industries or manufactures, having due regard to the circumstances of the said colony, do respectfully report as follows :—

GENERAL REMARKS.

The Commissioners having only been appointed on the 12th March, and the then ensuing session of Parliament having been fixed for the month of May, they saw it would be impossible for them during that short interval to completely execute, by personal examination, the inquiry committed to them, without incurring an expense disproportionate to the success which appeared likely to attend so hurried a proceeding. With a view, therefore, to making the most of the time at their disposal, and avoiding unnecessary expence, they resolved to

collect as much written information as they could concerning local industries generally, and to supplement it by means of particular inquiry as far as time would allow. With this object, they addressed a circular-letter, inviting information and co-operation, to the Chairmen of the County Councils, the Mayors of the principal Boroughs, the Chambers of Commerce, the Agricultural and Pastoral Associations, and to all Associations and persons that they deemed likely to be interested in the subject of the inquiry. It will be seen, from the papers appended to the report, that many of those to whom the circular-letter was addressed, cordially responded to the invitation of the Commission and rendered valuable assistance to them in their work. The Commissioners desire to convey their thanks to these gentlemen for their co-operation, and to express their disappointment that others—who, from their public position and intimate acquaintance with many matters connected with the industries of the country, might have similarly aided them in an important degree—did not choose to take any action of the kind.

The Commissioners discerned at the outset, what indeed must be discerned by every observer, that the great staple industries of the country, upon which it mainly depends for its wealth, and upon which its people mainly depend for their subsistence, are too firmly established to need any assistance from the Government, however capable they may be of extension or improvement by the ingenuity and enterprise of those who are engaged in them. It appeared to the Commission, nevertheless, in the course of their inquiry, that much injury might be done to these great industries, as well as others less fully developed, by capricious alterations of the fiscal laws, which, as they stand, are favourable to the development of those natural resources of the country which come within the scope of the simpler processes of settlement. It will be seen, from the evidence and various communications received by the Commission, that the views of those who deem themselves most directly affected by this question are singularly contradictory. Many persons, who, from the confidence with which they have invested large capital in their ventures, and from the wide experience which they claim to possess of the operation of commercial laws, might be assumed to be authorities upon the subject, urge the desirability of imposing protective or even prohibitive duties upon manufactured articles, or upon articles which they allege can be produced in the colony. Others again, engaged in precisely the same trades, and appearing to be equally capable of arriving at a sound judgment, advocate exactly the opposite course. The promoters of some local industries ask for protective duties on the particular articles which they produce, whilst other promoters of local industries show that protective duties on those very articles would inevitably crush their hopes of success. It is impossible, however, to disguise the fact, which is, indeed, frankly admitted in some instances, that those who make these representations are actuated more by the natural desire to widen the proportions and increase the profits of their own occupations than by any other consideration. The Commission are aware that a large and vexed question of policy, closely affecting the revenue, and extending to all branches of the public administration, is involved in this part of their subject. With that question of policy they do not consider it their duty to deal. They think it right, nevertheless, to state that they are satisfied the effect of the existing Customs tariff is distinctly though inequitably protective, inasmuch as it affords artificial advantages to particular industries by limiting the market of those who are dependent on them for their supplies. This is conclusively proved by the exceptionally high rate of wages which prevails in those industries, and by the rapid diminution of the imports of the class of articles which they produce. How far, or in what manner, this result affects other industries does not yet very clearly appear; but there is no doubt that, in the nascent stage of the industrial energies of the colony, there is every danger of the protection of one trade proving detrimental, if not positively destructive, to others. The Commission would, therefore, recommend that great caution should be exercised in making any changes in the Customs tariff, except, of course, for revenue purposes, lest, for the sake of hastening the prosperity of a particular industry, or affording special advantages to a particular section of the community, a blow should be unintentionally, but none the less effectually, struck at other industries in the prosperity of which

all sections alike are interested. Having referred incidentally to the question of wages, the Commissioners think it right to mention here that, from many quarters, the high rate of wages has been represented to them as one of the principal causes that militate against the promotion of local industries.

The Commissioners have not considered it necessary to make any inquiry into the position of the wool or grain-producing industries, or those minor ones which are naturally associated with them. The gold-mining and coal-mining industries, and the whole class of mineral industries, on the other hand, they felt they ought to investigate very carefully, both on account of their vast importance, and because they appear, from their very circumstances, to be so situated as to demand special attention from the Government. It was, therefore, with great regret that the Commission found themselves precluded, by want of time, from visiting those localities where for the most part these industries are seated, or are likely to come into existence. The Commission respectfully recommend that, should the present inquiry be continued, or any similar one be instituted in the future, a thorough examination should be made of the settlements on the west coast of the Middle Island, with a view to ascertaining what aid can most effectively and advantageously be given by the Government to the production of gold, coal, iron, timber, and other valuable materials which are known to exist there in boundless profusion, but under conditions of difficulty insuperable to a sparse population of limited means and appliances. Many other industries of great potential value must be placed in the same category with these; and the Commissioners trust that it will not be supposed they have overlooked them or under-rated their importance, merely because they have been compelled by the exigencies of time and travel to omit them, so far, from the compass of their inquiry. With these preliminary observations, the Commission will proceed to report in detail upon those subjects which have attracted their particular attention.

AGRICULTURAL PRODUCTS.

Tobacco.

The most important agricultural industry which has been brought under the notice of the Commission is undoubtedly the cultivation of tobacco for manufacturing purposes. The evidence establishes the fact that any quantity of tobacco, equal in quality to the finest American, can be grown in New Zealand, and that there is no reason why the whole of the tobacco consumed in the colony should not ultimately be produced and manufactured in it. This industry would afford profitable employment to cottage farmers, and also to women and children, and would utilize large tracts of lands which at present are either waste or yielding but little. Having satisfied themselves on these points, however, the Commission are met by the representations of the revenue officers, who show that if the tobacco industry were to be allowed to flourish, one of the most important sources of revenue (the only source which can be absolutely depended on) would be dried up. The operation of "The Tobacco Act, 1879," undoubtedly is to destroy the tobacco industry. It has actually had that result. But this appears to have been the object of the Act, and the tendency of the policy recommended by the Customs Department and adopted by the Government. That policy having been decided upon, it is useless for the Commission to make any recommendation on the subject of tobacco. A compromise in such a case would clearly be vicious. If the Customs revenue is held to be of paramount importance—as it unquestionably is at present—then the growth of tobacco ought to be prohibited, as it practically is by the Act of last year. If the local industry is held to be of paramount importance—as we trust it will be some day—then no restriction should be placed upon its pursuit, at all events until its early difficulties are overcome. The Commission are assured that after five or six years' cultivation tobacco could be produced in New Zealand, equal in quality to any that is now imported; and that, the industry once established, the same amount of revenue that is now raised by the Customs duty on imported tobacco could be raised by means of stamps on the locally-produced tobacco. As to the question of manufacturing tobacco from imported leaf, the Commission regard that as of far less importance than the other. It seems likely, nevertheless, to assume considerable proportions, and to be

advantageous to the country by affording a new outlet for labour, and to some extent favourably affecting the exchanges. The Commission are of opinion, however, that the bonus offered to this industry by the Act of 1879 is sufficient to encourage capitalists to embark in it, and they do not recommend any further concession to be made to it, unless the whole question of facilitating the local production of tobacco is to be dealt with apart from the revenue question.

Sugar.

The evidence on the subject of sugar is meagre, somewhat contradictory, and almost entirely speculative. It appears to the Commission that, while there is every probability of parts of New Zealand being found adapted for the growth of saccharine plants, no experiments of a conclusive character have yet been made to show that sugar can be produced here profitably. Lying, as New Zealand does, conveniently to the Mauritius and the islands of the Pacific, and drawing unlimited supplies of the finest sugar from these sources on fairly advantageous terms, the conditions of local production would need to be very favourable indeed, in order to render the industry worth prosecuting. Bearing in mind, however, that the capabilities of this country as regards climate and soil are as yet but little known, and also that the sugar industry has been made to flourish in countries less favoured than this, the Commission recommend that a bonus should be offered by the Government for the production of sugar from saccharine plants grown in New Zealand.

Fruits and Preserves.

The preparation of fruits and preserves is an industry for which New Zealand is better adapted than almost any other country in the world, and the fact that it has been so little engaged in is not easily accounted for, except on the ground that money has been earned so easily in less laborious ways as to deter the people from turning their attention to this. The industry has been established on a limited scale in various parts of the colony, and is everywhere found to be both easy and profitable, even when engaged in with but little capital and simple appliances. It does, in fact, need no artificial assistance, and the Commission are of opinion that if those who are engaged in it were to adopt the same means of pushing their trade that are employed by most men of business, they would speedily find themselves in a very satisfactory position. The success of any industry depends at least as much upon the degree of skill and energy with which its products are brought into the public markets as upon the quality of the products themselves. The fruit trade requires publicity and vigour in competition more than anything else. Taking into consideration, however, the great desirability of getting this thoroughly domestic, wholesome, and much-needed food industry firmly established, the Commission recommend that arrangements should be made for allowing a rebate on sugar used in the preparation of preserved fruits. The singular apathy with which this trade is at present followed is shown by the fact that a number of applicants have asked for a remission of the duties on sheet tin and solder, being evidently unaware that there are no duties on those articles. This curious mistake as to the existing duties has been found, however, in many other trades besides that of fruit-preserving, and shows how little difference there is between an imaginary and a real grievance.

Linseed.

The growth of linseed is shown to be an industry which could not fail to succeed or to prove of great value in New Zealand. The Commission think the papers on the subject are sufficient to justify their recommending that a bonus should be offered by the Government for the manufacture within the colony of the various products of linseed.

Starch.

The wonderful suitability of many parts of New Zealand, including areas in some localities which are at present considered almost entirely worthless, for the growth of potatoes, seems to render the profitable manufacture of starch a very simple and a very desirable matter. The only reason why it is not established

here is that the process is not commonly known, and that, consequently, capital seeks better ascertained outlets. The Commission recommend that bonuses should be offered through the agricultural associations in both Islands for the manufacture of starch.

Olives and Mulberries.

The evidence on the subject of the culture of the olive and of the mulberry for silkworms is almost purely speculative. There seems, however, to be little doubt that both could be pursued with advantage in some parts of New Zealand. The Government have already published some very valuable papers on this subject, and the Commission think that, in drawing public attention to those papers and to the evidence appended to this report, they will best further the prospect of the establishment of this industry, which can be pursued profitably even by cottagers and without any costly appliances. They would recommend that every encouragement should be offered to the cultivation of olive and mulberry trees under the Forest Trees Planting Encouragement Acts, and that if the law does not at present apply to these trees, it should be altered so as to compass them within its provisions.

Honey.

The production of honey of fine quality is shown to be a matter of much greater importance than would appear at first sight. The Commission desire to draw the attention of the various Acclimatization Societies, Agricultural and Pastoral Associations, and others to the evidence, showing that the introduction of the Ligurian bee is highly desirable on various grounds, particularly as a means of fertilizing clover.

DRAINAGE AND IRRIGATION.

Several representations of a very practical nature have been made to the Commission, and appear among the papers, on the subject of encouraging permanent agricultural improvements by drainage and irrigation; and the Commission desire strongly to express their opinion that any measure which would gain that object without detriment to the public revenue is well worthy of the consideration of the Legislature.

FORESTRY.

Closely connected with the subject of agricultural industries is that of forestry. The necessity for conserving the native forests, and replacing them by planting as they are cut down, is so obvious that it might be thought superfluous for the Commission to urge it here. The fact is, though, that while the importance of this subject is verbally admitted on all sides, yet no representations have hitherto been powerful enough to get a single practical step taken in connection with it. The Commission are convinced that if they can induce the Government at once to institute a scheme of forest conservation and plantation, even on a very unpretending scale, they will have achieved a great object. It seems most inconsistent for elaborate efforts to be made to anticipate private enterprise in fostering local industries of problematical feasibility, while the one great local industry for which nature has lavishly distributed the material amongst all the divisions of the colony, the one great local industry which properly is a subject for State control, is all but entirely neglected. The demand for forest products is constant and unlimited, and the forest industry is one which, more speedily almost than any other, peoples the district where it flourishes with a settled and thriving population. The wealth to be derived from an economical disposal of the forests is literally incalculable. Hitherto it has been wasted to the extent of hundreds of thousands if not millions sterling, and the waste is going on every day unaccompanied by any recuperative process whatever. This ought immediately to be arrested by measures being taken for protecting the Crown forests, placing the cutting of them under regulations, and planting the cleared areas with a new growth of useful trees. There appears to be really no difficulty in the way of all this being done. The system of forestry which has been in existence in Southland since the year 1874 answers its purpose very fairly, and not only is self-supporting, but brings in a considerable revenue. That system should be extended without any delay to all parts of the colony to which it is applicable. The

forests should be placed under the Crown Lands Department, some person who thoroughly understands the subject being appointed Director of Crown Forests, and intrusted with the organization and subsequent direction of what the Commission believes will speedily become one of the most important and satisfactory branches of the public administration. The valuable paper on Forests by Monsieur A. Lecoy, which has just been presented to Parliament, contains, in a compact form, all the information that is necessary in order to make a beginning in this direction, and the Commission would most earnestly recommend the Government to lose no time in adopting the suggestions there made. The Commission would venture to point out the undesirability of smothering this important subject under a load of costly officialism. They are of opinion that, by the exercise of a little energy and judgment, the management of Crown forests can be made to pay its own expenses from the very commencement. Only practical men should be employed in it, and all its operations should be conducted on business-like principles, such as would govern a private person in administering his own estate. The evidence before the Commission indicates the advisability of planting Government reserves in the neighbourhood of railways with various kinds of exotic trees, the products of which enter into the economy of many industries already established or capable of being profitably pursued in this country. Among these may be mentioned blue-gum, wattle, hickory, ash, oak, cork oak, and elm. Olives and mulberries might also be planted in situations where they can be easily looked after, by way of an experiment, with a view to the introduction of the olive and silk industries by private enterprise in the future. The aid of the various public domains, where an immense number of young trees are annually destroyed for want of some means of disposing of them, might be obtained in connection with the planting of Crown forests. The success that attended the planting operations of the Provincial Government of Canterbury, limited as they were, is testified by the existence to-day of woodland areas bearing trees which will soon attain a serviceable age. The Commission, in urging the forests question upon the attention of the Government, also commend to their notice the representations which appear in the evidence before them as to the advantages of using wood for fuel on the railways passing through forest districts.

COAL.

The Commissioners have not had an opportunity of ascertaining fully the position of this important industry; but they have, nevertheless, ample evidence that it is already assuming considerable dimensions, and proving of immense value to the country. The whole consumption is at present about evenly divided between the imported and the locally-produced coal; and it is merely a question of time when New Zealand will not only cease to import, but become a large exporter of coal. The Government have done much to hasten the development of the coal industry by insisting on the use of native coal on some of the public railways; thus demonstrating in a conspicuous manner that the local article is superior in point of quality and cheapness to the imported. It appears from the evidence, however, that there is still much to be done in this way, and the Government might with advantage use native coal in localities where the prejudices of the railway employés are still powerful enough to resist its use. The railway regulations respecting the carriage of coal are also stated to be very oppressive. Considering that the demand for native coal depends almost entirely on the price at which it can be delivered to the consumer, and that the facilities for carriage in many cases constitute the difference between working a mine profitably and working it at a loss, the Commission would recommend that native coal should everywhere be carried on the most liberal terms compatible with a due regard for the railway revenue. There are several applications for Government assistance to particular mines, by road-making or otherwise providing the means of access; but in the absence of fuller information the Commission are not disposed to make any special recommendation regarding them. They would point out, nevertheless, that a little timely assistance, such as the Public Works Department could render at a trifling expense, might in some instances be the means of developing a valuable coal deposit, which would otherwise lie waste for

years to come. The general conclusion at which the Commission have arrived respecting coal is that the industry is already firmly established, though labouring under some disabilities, and that it will in course of time attain a very flourishing condition, even if left entirely unassisted. They consider it, however, of so great importance, and so peculiarly situated, that the Government would be justified in going further in the direction of hastening its progress than in the case of almost any other. The Commission feel themselves unable to make definite recommendations on that point at present, owing to their not having had time to examine the position of the local industry in that part of the colony where the largest and most valuable deposits are found, and where the aid of the Government is most particularly needed. The Commission are, however, unanimous in deprecating the imposition of an import duty on coal, because it enters more or less into the economy of every local industry in the country.

THE WOOLLEN INDUSTRY.

The Commission were much gratified by the result of their inquiries as to the condition of the woollen industry, which will be seen by the evidence to be well established, and to require no artificial assistance of any kind. The only grievance which the woollen manufacturers complain of is the operation of the Employment of Females Acts. The Commission took great pains to investigate that matter; but, after giving it careful consideration, they are unable to recommend any alteration of the law in so far as it affects the length of the hours of work. They are satisfied that the Act affords a substantial and valuable protection to female and youthful operatives; and, though they recognize both that the local manufacturers are placed at some disadvantage by it as against manufacturers in countries where no such law exists, and also that in the woollen factories now in existence no serious evils would be likely to arise under the present excellent management from a repeal of it, they nevertheless consider that the well-being of an industrious and comparatively helpless class of the community is so effectually secured by it that they have no hesitation in deciding as they have done. They would point out that the condition of factory hands as a class in the future, or in other trades even at present, cannot be judged of by the condition of those employed to day in liberally-conducted establishments such as are described in the notes of their inquiry at Dunedin. On the question of legal holidays they found both employers and employed unanimous in condemning the present system, which appears to be a positive hardship to those whom it is designed to benefit. They find that the days prescribed by the Act as holidays are not regarded as special occasions by many of the workpeople, and are not observed by the community at large. The consequence is, that the workpeople are obliged to be idle on the days when their friends and neighbours are at work, and are denied the holidays which their employers would otherwise readily allow them when their friends and neighbours desist from work. The Commission therefore recommend that clause 4 of the Employment of Females Act of 1873 should be repealed, with the exception of that part of it which requires a half-holiday to be allowed on Saturday.

THE EARTHENWARE INDUSTRY.

The Commission find that the pottery and earthenware industry, though labouring under considerable disadvantages, is steadily making headway, and is likely soon to become of considerable importance. One great drawback to this industry is the excessive cost of bringing the manufactured goods to market; and the Commission, considering the great public good to be derived from this industry, recommend that the railway charges on its products should be reduced to the lowest paying rate.

LEATHER TRADES.

The industries of boot and shoe, saddlery and harness making, are evidently now well established, though suffering from the general depression of all trade. The remissions made in the modification of the tariff last session have resulted satisfactorily. From the evidence, however, several tradesmen seem even now to be unaware of the extent to which the raw material is admitted free; but they are

generally unanimous in considering that the increase of the duty last year has had a distinctly protective operation. The Commission would recommend that in any further revision of the tariff the duty on sewing-machine silks and threads, as used in the trade, should be remitted; also that saffron, which is used considerably by tanners as colouring matter, should be exempt from duty.

CARRIAGE-BUILDING.

From the evidence it appears that there is a general feeling of complaint among the carriage-builders that the rolling-stock for use on the railways is all imported, instead of a chance being given to local efforts by tenders being called for in the colony. The Commission are of opinion that when a further supply of railway carriages, trucks, wagons, &c., is required, tenders for their construction might with advantage be invited, and that every facility should be afforded to local manufacturers, as it would greatly strengthen and increase a most important industry. The Commission would recommend that, when a tender is called for, an approved pattern should be provided, with every cost upon it clearly stated, and that amply sufficient time should be given to tenderers in the first instance to enable them to fulfil their engagement. The evidence also makes it appear that, when the last modification of the tariff was made, hickory spokes were unintentionally omitted from the coach-builders' material to be admitted free of duty. "Unwrought hickory" is admitted free; but the Customs authorities, when appealed to, decided that hickory spokes did not come under that denomination. As it is quite impossible, however, to manufacture them at present in this colony, the Commission would recommend that they also be included in the list of raw material admitted free.

METAL TRADES.

The Commission find that the metal trades generally are more or less in a depressed condition.

The evidence shows that the capabilities of many establishments are very great, and that most descriptions of machinery can be manufactured in the colony; but the complaint is that the Government, by importing all they require, never give the local manufacturers a chance of competing for such machinery and ironwork as could be manufactured by them. Another special hindrance which the Commission would draw attention to is the competition by the Government workshops in the manufacture of machinery and other articles, which, as the evidence proves, is most detrimental to private firms. Not only does the Public Works Department compete in manufacturing and forgings, but they draw the best workmen away from private firms by offering higher pay than the current rate of wages. This matter demands the immediate consideration of the Government, and should be made the subject of strict inquiry; as, if local industries are to be encouraged, it is evident that the Government should not compete in any trade which is properly represented in the colony. The Commission are of opinion that, if these causes of complaint were removed, it would be of great benefit to the further advancement of these industries. The Commission would further recommend that all exemptions from Customs duty in favour of religious denominations, corporate bodies, or anybody else, should be abolished, in order to bring local manufactures into relation with the whole trade of the colony on equal terms with importers.

FISHERIES, ETC.

The fish industry does not seem to flourish as it should, considering the immense value of such an industry, and the singular facilities that exist for it in this country. The chief drawback to the development of the fish trade appears to be the high rates charged by the railway for the transmission of fish and oysters, and the uncertainty of the cheaper mode of carriage by sea. The Commission are of opinion that if the rates of carriage by railway were reduced to the lowest possible limit, and facilities established for running fish-trains, it would tend greatly to encourage this valuable industry, and create a demand which is now limited, owing to the present difficulty in obtaining the fish at the large centres of population. They would draw the special attention of the Government to the admirable letter of Mr. Charles Traill, of Stewart Island, on fishing and other

valuable interests on that island. With regard to fish-culture, the Commission recommend that permission should be given to fish-breeders to procure ova during the breeding season from public waters under the supervision of the Rangers, on the understanding that the fish bred from the ova thus obtained are not to be sent out of the colony.

IRON.

Though there is evidence to prove that vast deposits of most valuable iron ores exist in this colony, and that the question of opening out and developing the industry of smelting them is a most important one, yet, considering the present fluctuating state of the iron and steel trade, the Commissioners believe that the time has not yet come when the smelting of the iron ores or sand, or the conversion of the iron into steel, by the erection of costly plant, can be pursued in this colony with any probability of commercial success. Mr. T. J. Mulvany, C.E., writes: "It is essential to realize as fully as possible the present actual condition and the future prospects of the iron and steel manufacture in other countries, when coming to consider the question of its introduction here. That question must now be treated upon principles very different from those which might have held good only a few years ago, as all new works for the making of pig-iron and its conversion into steel must be got up on a large scale, and with the very latest improvements in plant of all sorts, so as to derive the full advantages of the progress of science in the shape of economical productions." The Commissioners have given this subject most careful consideration in the limited time at their disposal, and have come to the conclusion that they can make no special recommendations as to the promotion or encouragement of smelting the iron ores of this colony, though they fully recognize the fact that these vast resources do exist, and that at some future time the working of them may be most advantageously carried out, to the great benefit of the colony. The Commissioners consider that this subject should engage the earnest attention of any future Commission or other persons appointed to inquire into local industries.

JEWELLERY.

The evidence on the industry of the manufacturing jewellers all tends in the direction of demanding a prohibitive duty on imported jewellery, and an export duty upon greenstone. No doubt the trade is in a very depressed condition; but the Commissioners, from various inquiries, think that that is principally due to temporary causes, and they can offer no special recommendations for the fostering of this industry. They would point out, with reference to the complaints of the jewellers of their original designs being imitated in inferior materials in England, that there is no close property in designs anywhere, and that for one colonial design that is imitated in Europe a hundred European designs are imitated in the colonies. The "design" in such a case is really only a natural object—a leaf or an animal peculiar to the colonies, which is adapted to the uses of the artist in gold. The Commission are not in favour of taxing the whole community, or restricting the choice of the whole community in works of luxury and art, in order to create an artificial industry for which there is no natural demand.

CEMENT.

The importance of developing the local manufacture of cement demands particular attention. This should become a most valuable industry, because cement is very largely consumed, and enters into the economy of a great number of other industries. From the evidence it appears that large deposits of the materials used in the manufacture of Portland cement have been discovered in various parts of these Islands—in the neighbourhood of Gisborne, Oxford, Greymouth, New Plymouth, and Dunedin—which local residents are anxious to utilize if some assistance could be given them to develop the manufacture. The most practical suggestion is contained in the evidence of Mr. W. G. Ewing, of Dunedin, who states that if an order were given to him by the Government for 100 tons of cement, he would be able to start the industry himself. The Commission are of opinion that this is well worth the consideration of the Government, and they recommend that the Government should offer to purchase 100 tons of cement from any *bonâ fide* local

manufacturer, to be delivered in such quantities as may be agreed upon, the quality to be subject to the tests of any impartial inspector appointed by Government, and the price to be the then market price of the best Portland cement as delivered at any of the principal seaports in the colony. The Commissioners think that, if such a course were adopted, it would be sufficient inducement to develop an industry the importance of which cannot be overrated.

BOOKBINDING AND ACCOUNT-BOOK MANUFACTURE.

The Commissioners are of opinion that this industry should be encouraged by the remission of duty on bookbinders' leather—which, being of a peculiar quality, must be imported—and the remission of duty upon ruling-inks and other articles used in the trade. The Commissioners also think that due regard should be paid to the enterprise of existing manufacturing stationers and printers, and, when possible, tenders should be invited by the Government for the supply of such articles as the local manufacturer can produce.

SULPHURIC ACID.

The manufacture of sulphuric acid in this colony is a desideratum, as sulphuric acid enters so largely into various manufactures and artificial manures. At present it is all imported, at considerable cost and risk; but there is little doubt that, were a manufactory established, it would soon become a most lucrative business. To encourage the establishment of a sulphuric acid manufactory, as the cost of the plant is heavy, the Commission would recommend that a bonus be offered to this industry.

SUGAR REFINERIES.

The establishment of sugar refineries, by encouraging a direct trade with places where the sugar is produced, would tend to increase the commercial relations of the colony and the interchange of commodities with those places. The Commission therefore recommend that a bonus should be offered for the refining of sugar in the colony.

SILK.

For the encouragement of the silk industry, the Commission recommend that the bonus should be revived that was offered in 1871—namely, “A bonus of 50 per cent. on the value realized is offered for the production of the first thousand pounds' worth of the cocoons of the silkworm or eggs of the silkworm produced in the colony, to be paid on quantities of not less value than £50 or more than £100 produced by any one person.”

ANOMALIES IN THE TARIFF.

The Commission have had their attention drawn by the evidence to various anomalies which exist in the tariff, whereby the raw materials of manufactures are charged duty, while the manufactured articles themselves are admitted free—for instance, sheaves for blocks are charged duty, whereas the blocks with the sheaves in them are free; twine for making fishing-nets and tarpaulins is charged duty, while the nets and tarpaulins are free. Many other instances of a like nature occur; and the Commission recommend that, upon a revision of the tariff, in all such cases the raw material should be admitted free, and duty be levied, if levied at all, on the manufactured import.

DIVISION OF SCHEDULES.

The Commission would draw attention to the fact that the Public Works Department do not encourage and make use of local manufactures as much as they should. The present practice in calling for tenders for supplies is to include a variety of articles in one schedule, and to invite one tender for the whole. The consequence is that only a general dealer—that is to say, an importer—has any chance of obtaining the contract, which he executes from his general stock. If the schedules were divided, so that tenders might be made for each class of goods, there would assuredly be a much keener competition, and the Government would thus be better served, while local producers would have a chance of introducing their wares. The Commission would point to the article “floor-matting” as an

illustration of this. The Public Works Department call for tenders for floor-matting, together with a number of other kinds of goods which a manufacturer of floor-matting does not deal in, but which a merchant can supply as easily as he can floor-matting. The manufacturer of floor-matting is thus debarred from tendering for the supply of that material, even though he may be in a position to supply it much more cheaply and of far better quality than the general merchant can. The same remarks apply to lime, the Public Works Department using large quantities of Portland cement, when the Mahurangi lime, which is equal to cement for concrete purposes, is to be had near at hand at a much less cost. The Commissioners think that, in all cases where locally-made articles or manufactures can be utilized by the Public Works or any other department, they should be, provided that they are equally good and suitable for the purpose, and are procurable at as low a cost. The Government should be the last to be influenced by any prejudice against "colonial-made goods," and they should not allow the crotchets of officials, whether the heads of departments or subordinates, to stand in the way of the fair encouragement of local industries.

PATENT LAWS.

From the various recommendations that are made on this subject, it appears that the patent laws are unsatisfactory, and that the cost, delay, and trouble of getting a patent are unreasonable: the Commission therefore recommend that the Government should cause an inquiry to be made into the state of the patent laws, with a view to a better system being adopted. They would particularly draw attention to the absence of any official facilities for affording practical information regarding patents, the Registrar of Patents being at present inaccessible to the public, owing to the stringency of regulations of which the public know nothing.

TECHNICAL EDUCATION.

Owing to want of time, the Commission have not entered upon this subject; which has been, nevertheless, brought prominently to their notice in the evidence. The Commission think that this is one of the subjects on which it is desirable there should be a careful inquiry, recognizing that it is of the highest importance that technical education should be developed and fostered in every respect in all the principal centres of population. The Commission would draw special attention to the prospectus of the School of Agriculture of the Canterbury College, which will be found among the papers attached to the report.

BONUSES.

The Commission have given considerable attention to the question of the best manner of offering bonuses for the encouragement of local industries, and have come to the conclusion that the manner most economical to the Government and at the same time affording the strongest inducement to enterprise is to guarantee interest up to 5 per cent. on the outlay for a period of four, five, or six years, according to the nature of the undertaking. They have reason to believe that by this means many important industries would be brought into existence and successfully established, which are now neglected solely from the fear of a dead loss of interest on capital during the first few years of uphill work. They think that the conditions which they propose are at the same time of a character to protect the Government against imposition and to deter adventurers from plunging into wild schemes at the public expense. The Commission therefore desire the expression "bonus," wherever it is used in their report, except with respect to the production of silk, to be understood to mean a guarantee of interest on capital invested up to 5 per cent. for a period of from four to six years.

WEIGHTS AND MEASURES.

It has been represented to the Commission that there should be a uniform standard of weights and measures for grain and flour fixed by law throughout the colony; and in this the Commissioners concur.

THE SPECIAL PARTNERSHIPS ACT.

The Commission have given some consideration to the question of so amending the law of partnership as to admit of capital being invested in an enterprise, with a view to assisting projectors, without subjecting the capitalist to unnecessary risk. They find, however, that what is wanted is not so much an amendment of the law as a wider knowledge of the law as it stands. They therefore take advantage of the publicity which their report is likely to obtain to draw the attention of the public to the provisions of "The Special Partnerships Act, 1858," and "The Partnerships Amendment Act, 1866" (the provisions of which are reproduced in the Mercantile Law Bill, now before Parliament), under which capitalists can share the profits of an undertaking with limited liability for themselves—the unlimited liability being restricted to the working partner—and without the necessity of having seven in the company, as required by the Joint-Stock Companies Act.

THE EXHIBITION OF LOCAL INDUSTRIES AT CHRISTCHURCH.

The Commission have received from the Government the report of the Committee appointed to inspect the Exhibition of Local Industries at Christchurch, and it will be found at the end of the evidence and papers properly belonging to their inquiry. They regard the Exhibition both as a striking proof of the progress already made by local industries in the country, and as a valuable means of furthering their progress in the future. They concur in the recommendation made by the Committee, that, in the event of any other exhibition of the kind being held, either in Christchurch or elsewhere, the Government should take steps to obtain full and accurate particulars regarding the exhibits, for public information.

CONCLUDING REMARKS.

The Commission feel that in this report they have but very imperfectly acquitted themselves of the duty intrusted to them. They cannot but express their regret that they have been prevented by want of time from thoroughly investigating the subject of their Commission, and by the impossibility of obtaining leisure during the session from giving sufficient consideration to the material which they have collected. They are of opinion, nevertheless, that much good will result from the publication of the evidence attached to this report; and they trust that their own conclusions upon it, immature as they may be, will be of some assistance to the Government and of some practical value to the public. The experience which the Commission have gained in the course of their inquiry leads them to the belief that sooner or later it will be found profitable to institute some kind of permanent administrative relations between the Government and the public, having special reference to the development of the industrial energies of the country. The Commission hesitate to suggest the establishment of a Department of Industry and Commerce, lest they should be misunderstood. Nothing is farther from their mind than to recommend the creation of costly official machinery to do what could best be done at little or no cost, and without any official form. What is really needed is an active, practical man of business, or several active, practical men of business, with an aptitude for the work, and, above all things, free from either scientific or political crotchets, who should carry on the process of inquiring into the state of local industries, obtaining accurate information as to the disabilities under which they suffer, affording information required by those concerned in them, and reporting to the Government from time to time the directions in which they may render them assistance or avoid inflicting injuries upon them. In the meantime, the Commission venture to express a hope that the subject of local industries will not be allowed to fall into oblivion, but that steps will be taken to continue, in one form or another, the interesting and useful investigation in which they have been engaged.

Given under our hands and seals at Wellington, this twenty-ninth day of July, 1880.

EDWARD WAKEFIELD.

THEODORE F. S. TINNE.

~~A. H. MURRAY.~~

J. W. BAIN.

E. C. J. STEVENS.

A. J. BURNS.

WM. ARCHD. MURRAY.

ACKNOWLEDGMENTS.

THE Commission desire to express their obligation to the following gentlemen for the various communications mentioned below, which, having already been published or not being suitable for publication with this report, are omitted from the evidence and papers.

Colonial Secretary, Wellington, 16th March, 1880.—Forwarding “Suggestions as to the Scope of a Proposed Inquiry into the Best Means of Promoting and Encouraging Manufactures and Local Industries in the Colony,” by T. J. Mulvany, C.E.; as published in the *Bay of Plenty Times*.

Captain F. G. Moore, Wellington, 18th March, 1880.—Forwarding printed particulars of the discovery of the West Wanganui Coal Mine, and of the progress of workings up to present time.

J. Wilson and Co., Auckland, 7th April, 1880.—Submitting price-list of their hydraulic lime, and extract from a newspaper on the subject.

The Mayor of New Plymouth, 10th April, 1880.—Enclosing leading article of the *Taranaki News* of 27th March, 1880.

Mr. James Grant, Wellington, 10th April, 1880.—Enclosing letters to the *New Zealand Times* on local industry.

Mr. James Stodart, Secretary to Auckland Chamber of Commerce, 10th April, 1880.—Forwarding letters from A. Reynolds and others, and a copy of the petition of coachbuilders and wheelwrights to the House of Representatives last session.

City Council Office, Christchurch, 13th April, 1880.—Enclosing copy of circular sent out by them.

Mr. T. Wilson, Woolston, 16th April, 1880.—Reply to Christchurch City Council’s circular.

The Secretary to the Dunedin National Industrial Association, 13th April, 1880.—Stating the views of members with reference to the visit of the Commission to Dunedin.

The Secretary to the Taranaki Agricultural Society, New Plymouth, 14th April, 1880.

Mr. J. C. Forsyth, Waitepeka, 15th April, 1880.—Forwarding newspaper extracts on local industries.

The Mayor of Auckland, 19th April, 1880.—Forwarding letters as follows: Charles Woolgar, on colonial ovens; G. D. Burke, on bellows-making materials; H. Waite, on tinsmiths’ materials; C. C. Fleming, on bootmaking materials; E. Dutton, on cork manufacture; Atkinson and Co., on kaurigum varnish; A. K. and F. Goodacre, on boot and shoe trade; F. B. Graham, on silkworm cultivation.

Mr. Charles Parkinson, Wanganui, 22nd April, 1880.—Enclosing letters to *Wanganui Chronicle*.

Mr. J. H. Barnicoat, County Chairman, Waimea, Nelson, 23rd April, 1880.—Forwarding copy of report of Commissioners appointed in 1872 to inquire into the best means of furthering the industrial interests of that province.

City Council Office, Christchurch, 27th April, 1880.—Forwarding replies in response to circular, as follows: Austin and Kirk, W. Neighbours, Kempthorne and Co., Hallenstein Bros., A. T. White, Scott Bros., W. Moor and Son, J. Wilson and Co.

Mr. William Bateman, Christchurch, 28th April, 1880.—Forwarding two pamphlets, “The Evil Results of Protection,” and “The Agriculturist.”

Mr. Charles Montrose, Auckland, 14th May, 1880.—A pamphlet on technological education.

Mr. Allan McLeod, Dunedin, 18th May, 1880.—Forwarding two German prospectuses of technological schools in Germany.

LIST AND PRECIS OF PAPERS FORMING THE EVIDENCE ATTACHED TO THE REPORT.

AGRICULTURAL INDUSTRIES.

1. Mr. Edward Pilbrow, Temuka, March, 1880.—Suggestions with a view to multiplying the limited number of payable crops by alternating with linseed and other oil-producing seeds.
2. Mr. P. T. Adams, Christchurch, 11th March, 1880.—Recommending that the Government should offer a bonus for the encouragement of the industry of bulbs, tuberous roots, and flower-seeds culture.
3. Mr. James Laird, Wanganui, 31st March, 1880.—Evidence on the cultivation of the sugar-beet.
4. Mr. Henry Budden, Nelson, 2nd April, 1880.—Evidence as to the advantage of the cultivation of fruit for preserving, and recommending the establishment of a fruit-preserving factory, and that the industry should be encouraged by the imposition of a duty on imported fruits, and the remission of duty on sugar, sheet-tin, and solder.
5. Mr. Samuel Carter, Motueka, 6th April, 1880.—Evidence on the cultivation of fruit-trees and fruit-preserving. Requires £1,500 to expand the industry, and asks for the remission of duty on sugar, sheet-tin, and solder.
6. Gisborne County Council, 4th April, 1880.—Suggesting that a bonus should be offered for the discovery of petroleum and coal, and for the growth of hops and tobacco.
7. Mr. Robert Pharazyn, Wanganui, 8th April, 1880.—Forwarding minutes of a meeting of the Agricultural and Pastoral Association, and stating that any attempts to foster local industries by protection would be injurious.
8. Hobson County Council, Paparoa, 9th April, 1880.—On the existing industries in the county, showing how all are depressed, and some in a state of collapse, from the want of roads and means of transit.
9. Rodney County Council, Warkworth, 16th April, 1880.—From want of capital few undertakings have been embarked in. Wine-making is carried on to some extent; but the makers request that the existing restrictions may be removed, so that they can sell their wine in quantities of less than two gallons. Coal, other minerals, and lime are to be found in the district.

10. The Joint Committee of the Borough and County Councils of Thames, 22nd April, 1880.—Recommending that glass bottles for sauces, &c., should be duty-free; and a rebate on sugar, vinegar, and spices, and increased duty on imported sauces; also a duty on preserved fruits: that the wine-makers' license should carry with it power to sell in quantities of less than two gallons: that the duty on paints, wet or dry, be 20 per cent.; on whitenings and chalks, 5s. per hundredweight; on varnishes, 2s. per gallon: that duty be increased on machinery, tinware, and ironmongery: that the duty on English malt and hops be reduced, or an extra duty be put upon imported beer: that miners' shovels be free, and that blasting-powder should not be taxed with a shilling removal license for every 50 lb.
11. Messrs. Ehrenfried Bros. and Alexander Hogg, Thames, 13th April, 1880.—Stating that the effect of the increased duty on English malt and hops is injurious, and asking for extra duty on foreign beer.
12. Messrs. Ehrenfried Bros. and Alexander Hogg, Grahamstown, 13th May, 1880.—Evidence that the increased duty on English malt and hops has had an injurious effect upon their bottling trade, and asking for increased duty upon imported beer.
13. Mr. Richard Hudson, Parawai, Thames, 13th April, 1880.—Though a free-trader in principle, is convinced that the fruit-preserving industry requires protection.
14. Mr. Alfred Gough, Thames, 13th April, 1880.—Thinks that the wine license, as in force in the Australian Colonies, should be applied to New Zealand.
15. Mr. Israel Wendal, Auckland, 23rd April, 1880.—Stating that his trade is severely crippled owing to the difficulties in disposing of his wine, and requesting that a bottle license may be granted for the sale of colonial-made wines.
16. Mr. E. C. Mouldey, Christchurch, 31st May, 1880.—Stating that he has been a manufacturer of home-made wine for ten years, and hoping that the Licensing Act may be so altered as to permit the sale of a single bottle.
17. Mr. James Smith, Nelson, 20th July, 1880.—Stating that he has been manufacturing New Zealand wines since 1872, and trusting that the present restrictions, by which he cannot sell in quantities of less than two gallons, may be removed. Encloses copies of awards and prizes he has received.
18. Mr. Theophilus Daniel, Riverton, Southland, 23rd April, 1880.—Regretting that the distillation of barley should have been stopped, and suggesting that a bonus should be offered for the manufacture of sugar from beet, and encouragement given to the cultivation of linseed.
19. Mr. A. Hills, Island Farm, Manurewa, 24th April, 1880.—Thinks that if a protective tax were put upon maize, such as would insure its price not descending below 3s. 6d. or 4s. per bushel, its cultivation would be extended. Suggestions on promoting the growth and production of wattle-bark, under a scheme similar to the Forest Trees Act; thinking £8 scrip should be offered instead of £4 scrip per acre, as given under the Act.
20. Hawke's Bay County Council, Napier, 30th April, 1880.—Stating that the existing industries are few; but consider that there are great advantages for the growth of sugar-beet, sorghum, hops, tobacco, hemp, fruit, mulberry and olive trees, and that the facilities for the establishment of a woollen factory cannot be surpassed. Suggestion as to whether some concession in duty on the production of sugar, instead of a bonus, might not be more conducive to its manufacture.
21. Mr. C. T. Wren, Mount Hobson, Remuera, Auckland, 21st April, 1880.—Suggesting that the bee-keeping industry should be encouraged by temporary protective measures; but considers the introduction of the Ligurian bee of the utmost importance. Is of opinion that with an expenditure of £500 the Government might procure them, by sending him or any other competent person to America for the purpose.
22. Mr. C. T. Wren, 30th April, 1880.—Evidence on bee-culture, and the immense advantage to the industry and country the introduction of the Ligurian bee would be, which would extract honey from and fertilize red clover and many other flowers which other bees are unable to reach. He would be prepared to introduce them if his expenses were paid and a fair amount of remuneration if successful. Recommends a duty to be imposed on beeswax and honey.
23. Mr. C. T. Wren, 1st May, 1880.—Notes on the importance to which bee-culture has attained in America, and a report from an apiary in New York, stating that the results are largely indebted to the Ligurian bee.
24. Mr. C. T. Wren, 7th May, 1880.—Suggestions as to the mode of expenditure, should Government grant £500 for the introduction of the Ligurian bee. He would give security of £500 or £1,000 if required.
25. Mr. C. T. Wren.—Notes on bee-culture, and the advantages obtained by having the Italian bees.
26. Mr. Isaac Hopkins, Grahamstown, 13th May, 1880.—Evidence on the advisability of sending some one to America to import the Ligurian bee, so desirable both for honey-making and for the inoculation of red clover.
27. Mr. John Lamb, Auckland, 10th May, 1880.—Evidence showing the injurious effects the competition by the Government in the labour-market has upon private employers of labour. Recommends that unoccupied lands north of Auckland suitable for fruit-growing should be granted to settlers for that purpose, also that every facility should be given to the manufacture of iron from the native ores; that a bonus should be offered for the production of sugar from beet; that a protective duty be placed upon preserved fruits; and brings to notice the expediency of introducing the Ligurian bee.
28. Mr. Richard Dignan, Auckland, 15th May, 1880.—On the importance of the encouragement of the silk industry, and asks whether Government will revive the bonus in force some few years ago.
29. Mr. Robert Allan, Christchurch, 24th May, 1880.—Suggesting that the offering of a bonus for the production of sugar from beet should be widely circulated in France and Germany as an inducement to them to bring their capital and knowledge to develop the industry in this country.

30. Mr. G. B. Federeti, Hokitika, May, 1880.—Notes on the cultivation of the vine, olive, and mulberry trees, and their importance as an industry specially adapted to the North Island.
31. Mr. Thomas Kirk, Wellington, 8th June, 1880.—Paper on the cultivation of the orange tree in New Zealand.
32. Mr. Thomas Kirk, Wellington, 8th June, 1880.—Evidence as to the advantage to be derived from the cultivation of fruit-trees, economic plants, and garden-seeds; also bringing to notice the neglected forest products which ought to be utilized as fuel for locomotive purposes.
33. Mr. Thomas Kirk.—A paper on the cultivation of saffron.
34. Mr. Thomas Kirk.—Notes on the cultivation of Loxa bark or Peruvian bark, *Cinchona officinalis*, *Cinchona calisaya*, *Cinchona succirubra*.
35. Mr. Thomas Kirk.—Notes giving a short list of medicinal plants which may be profitably cultivated in New Zealand.
36. Mr. E. W. Gotch, Opotiki, 21st April, 1880.—Owing to the imposition of the duty upon tobacco by the Act of 1879, his industry of tobacco cultivation and manufacture is extinguished. Recommends the duty upon local production to be reduced to 1s. per pound.
37. Mr. E. W. Gotch, Opotiki, 4th May, 1880.—Giving a statement of losses sustained by him owing to the operation of the Tobacco Act of 1879, and asking for some compensation.
38. Mr. August Vollbracht, Wellington, 5th June, 1880.—Evidence on the operation of the Tobacco Act of 1879, under which the cultivation of tobacco in the colony is virtually prohibited. States that tobacco can be grown of as good a quality as that which is imported from America, and in sufficient quantity for all our wants; but unless the duty is reduced to 1s. per pound it cannot pay to produce it. Regarding the manufacture from imported leaf, recommends that the bonus be raised to 1s. per pound, instead of 6d. as at present.
39. Mr. August Vollbracht, Wellington, 5th June, 1880.—Stating that if duty be charged on tobacco grown within the colony it cannot pay to grow it. Recommending that a bonus of 1s. be paid to licensed tobacco-manufacturers for every pound of imported tobacco manufactured in the colony, instead of 6d.; and that no one be permitted to manufacture tobacco grown on his own property without obtaining a license.
40. Mr. Charles Harrell, Wellington, 15th July, 1880.—Calling attention to certain clauses of the Tobacco Act of 1879, which prevent the cultivation and manufacture of tobacco in the colony, and submitting amendments for consideration. Enclosing also notes on the cultivation of tobacco.

ARBORICULTURE.

41. Mr. D. McArthur, Inspector of Forests, Invercargill, 16th April, 1880.—Reporting on the position of the saw-mill industry in Southland, as reduced to a system under regulations for properly utilizing and conserving the native forests, and strongly urging the desirability of replenishing the denuded forest-land with trees of quicker growth.
42. Mr. J. Robin, Dunedin, 29th April, 1880.—Strongly recommending the planting of hardwood trees, such as oak, ash, hickory, beech, and elm.
43. Mr. Henry Rafton, Auckland, 8th May, 1880.—Evidence on the cultivation of the osier plant, and the advantage of planting suitable pieces of land on the railway reserves with osiers. Asks for a duty of 20 per cent. on perambulators, and a duty on Manila kits.
44. Mr. A. Hills, Island Farm, Manurewa.—Forwarding papers on the production of the wattle-bark and the planting of forest-trees.

BOOKBINDING AND PRINTING.

45. Messrs. Fergusson and Mitchell, Dunedin, 18th May, 1880.—Recommending that certain articles used in their trade be admitted free, and that duty be placed upon certain others, and suggesting that Government might distribute some of their work outside Wellington.
46. Mr. William Leys, Auckland, 11th May, 1880.—In the interests of the bookbinding and paper-ruling industry, requesting that a duty of 35 per cent. be put upon all ruled books and papers for a few years, and that all articles used in the manufacture should be free.

BRUSHWARE.

47. Mr. Louis Henly, Dunedin, 14th April, 1880.—Suggesting that the duty on wire, sewing-twine, and other articles used in the manufacture of brooms and brushes should be remitted.
48. Messrs. Gibbs and Clayton, Dunedin, 14th April, 1880.—Recommending a duty on brooms and brushes imported.
49. Mr. Thomas J. Harbutt, Auckland, 5th April, 1880.—Asking for an additional duty of 5 per cent. on household and ships' brushes only.
50. Mr. Thomas J. Harbutt, 22nd April, 1880.—Forwarding a statement showing the differences which exist in the prices paid for the manufacture of brooms and brushes in England and Auckland, and other particulars of the trade.
51. Mr. Thomas J. Harbutt, 1st May, 1880.—Evidence concerning his trade—that additional duty would bring the trade to him instead of to the importer. Brings to notice the advisability of procuring fibre from the Islands, if possible; and the planting of the American corn-broom by farmers and small landholders.

CABINETMAKING AND UPHOLSTERY.

52. Messrs. Guthrie and Larnach, Dunedin, 9th April, 1880.—Are of opinion that the general depression of trade suggests the necessity for measures calculated to provide employment for the people, and remunerative outlets for the resources of capitalists, which can only be accomplished by a thorough adjustment of the tariff and by the adoption of a protective policy to encourage enterprise.

53. Mr. A. J. White, Christchurch, 19th April, 1880.—Referring to the prejudice against colonial work, and the difficulty of seasoning timber; suggesting that Government should control their forests and allow timber to be cut at certain seasons only; recommending the removal of all duties from timber, that the laws relating to apprenticeship should be of the most liberal kind, and the establishment of schools of art in all centres of population.
54. A deputation, comprising Messrs. North, Chisholm, and Gillies, of Dunedin, 18th May, 1880.—Expressing their conviction that a protective duty in their trade would have a disastrous effect, preventing the employment of much labour by limiting the sale of goods, and resulting in the present youth never being taught to become finished tradesmen. They require no protective tariff to nurse their trade; but request that the present duty on furniture may be reduced to its old rate of 10 per cent.

CANDLE AND SOAP MANUFACTURE.

55. Mr. A. McLeod, Dunedin, 18th May, 1880.—Evidence on chemical manufactures, such as sulphuric acid, soap, stearine, candles, and artificial manures, and the interdependence of such industries; also with regard to other manufactories, the raw material from one finding use by the existence of other factories. Specially recommends the establishment of a sulphuric-acid manufactory. Referring to his own trade of candle-making, states that it could not stand without the present protection.
56. Mr. J. Kitchen, Wellington, 1st June, 1880.—Asking for the duty on candles to remain as it is, and that the duty be taken off wrapping-paper.

CEMENT, ETC.

57. Messrs. Young Brothers, Westport, 31st March, 1880.—Stating that in their opinion the Greymouth limestones would yield a cement like Portland, and suggesting the analysis of them, and such tests as would prove whether they are suitable for the purpose, which might result in the establishment of a most valuable industry.
58. Messrs. Young Brothers, Westport, 31st March, 1880.—Letter to Mr. Masters, urging him to place before the Commission the advisability of having the Greymouth limestones investigated and experimented on with a view to the manufacture of cement.
59. Town Clerk's Office, Greymouth, 22nd June, 1880.—Stating that in the opinion of the Borough Council the manufacture of cement and hydraulic lime from the Greymouth limestones should be experimented on, and forwarding samples for analysis.
60. Town Clerk's Office, Greymouth, 23rd June, 1880.—Letter to Mr. Masters, informing him of the despatch of samples of limestones to be delivered to the Commission.
61. Dr. James Hector, Wellington, 8th July, 1880.—Result of analysis of samples of Greymouth limestone, from which it appears that none are first-class. One sample is better than the rest, and experiments will be made with it and reported on.
62. Gisborne County Council, Gisborne, 7th April, 1880.—Stating that there are large deposits of materials used in the manufacture of Portland cement, and asking if Government will assist, by a grant of £700, a person willing to undertake the manufacture.
63. John Ingram, Oxford, 13th April, 1880.—Stating that he is part-owner of property which contains a deposit of chalk which might be utilized in the manufacture of Portland cement, and thinks Government might erect manufactories, or offer a bonus to induce a company to take it up. Refers to Mr. Williams, C.E., and incloses Dr. Hector's report.
64. Dr. James Hector, 2nd March, 1880.—Reporting on chalk found at Oxford, and the uses to which it can be profitably employed—namely, crayons, manure, whitening, mortar, and Portland cement.
65. Selwyn County Council, Christchurch, 3rd May, 1880.—Drawing attention to the desirability of promoting the manufacture of cement, and the recent discovery of chalk in the neighbourhood of Oxford; also drawing attention to the water-power in the district, which might be made available at little expense.
66. Mr. W. A. Ewing, Dunedin, 26th May, 1880.—Evidence stating that he has applied for a patent to manufacture cement from stone found near Dunedin. Recommends the offering of a bonus for the manufacture, or that Government would give him an order for 100 tons of cement.
67. Mr. Charles D. Irvine, Wellington, 31st May, 1880.—On the manufacture of Portland cement, and stating that in many parts of New Zealand all the raw materials are found necessary for the production of the highest class of cement. Brings especially to notice the contemplated erection of a breakwater at New Plymouth, and that within a few miles the best raw material is found, which could be manufactured into cement at a less cost than the imported cement. Recommends a thorough investigation, and that Government should encourage the establishment of the industry by bonus or otherwise. Gives an estimate of the plant necessary.

COACHBUILDING TRADE.

68. Mr. J. Robin, Dunedin, 7th April, 1880.—Remarks that the time has gone by when the Government can materially assist in establishing an industrial population; but, at some future time, when more railway-carriages are required, tenders should be called for them in the local market.
69. Messrs. Sinclair and Morton, Dunedin, 10th May, 1880.—Urging upon the attention of the Government that when railway carriages, trucks, wagons, &c., are required, tenders be invited for their construction and supply within the colony, being convinced that they can be made in the colony at a less price, and equal in durability and finish to the imported; also recommending the planting of reserves with hickory, oak, ash, &c.
70. Messrs. Sinclair and Morton, Dunedin, 18th May, 1880.—Evidence stating that they think the time has arrived when most of the rolling-stock on the railways should be built in the colony.

They consider the present 15 per cent. duty sufficiently protective for all purposes, and are satisfied with the tariff as it now stands, with the exception of the duty on hickory spokes, which they ask may be free.

COAL.

71. Mr. Andrew Pollock, Green Island, 29th March, 1880.—On the desirability of the Government encouraging the prospecting for and development of our coal resources.
72. Mr. John Marshall, Collingwood, 7th April, 1880.—Evidence on the working of the Collingwood Coal Mine; and that, to develop it, he requires £1,400, and a wharf built at Timatie Point, to give 20 feet depth at low water, for vessels to load at.
73. Mr. R. Johnson, Secretary, Marine Department, Wellington, 7th June, 1880.—Forwarding letter, with plans giving the distance from high-water mark at which 20 feet of water can be obtained near the Parapara River and Timatie Point, Golden Bay.
74. Mr. James Foote, Auckland, 3rd May, 1880.—Evidence stating the difficulties he has had to contend with in working the Miranda Mine. Has frequently applied for assistance, but without avail. There are large deposits of iron ore and limestone in the district, which are not being worked for want of roads or railways. Forwards letter from Mr. George Perry on the subject of the mine and the iron ores in the district.
75. Mr. George Perry, Auckland, 24th February, 1880.—Reporting on the coal mine at Miranda.
76. Mr. Thomas P. Moodie, General Manager, Bay of Islands Coal Company, 4th May, 1880.—Evidence on the working of the Kawakawa Coal Mine, the further development of which will be greatly benefited by the railway now in course of construction, as the demand for coal is far in excess of the supply.
77. Mr. Josiah C. Firth, Auckland, 14th May, 1880.—Evidence on the difficulties attending coal enterprise, which, as yet, has not been profitable, from various causes; but is of opinion that relief and encouragement may be afforded by an alteration in the mode of levying the rents and royalties—that, instead of a fixed sum as royalty, a percentage on the profits be paid in lieu thereof.
78. Deputation from the directors of the Walton Park Coal Company, Dunedin, 17th May, 1880.—Stating that, although their tender for coal for locomotive purposes was accepted, and the trials proved satisfactory, yet the railway authorities have taken none of it for that purpose, which they attribute to the prejudice and determination of the drivers and employes of the Railway Department not to use it. Copies of the whole correspondence between the Company and the railway authorities, and Mr. Petre's certificates, are herewith submitted.
79. Mr. H. B. McIntosh, Secretary, Walton Park Coal Company, Dunedin, 19th May, 1880.—Forwarding correspondence and reports.
- 79A. Commissioner of Railways, Middle Island, Christchurch, 9th January, 1880.
- 79B. Mr. H. B. McIntosh, Secretary, Walton Park Coal Company, Dunedin, 20th February, 1880.
- 79C. Locomotive Engineer, Dunedin, 25th February, 1880.
- 79D. Coal trials on New Zealand Railways. Condensation of report, made to chairman and directors of Walton Park Coal Company, of trials under Mr. Armstrong, Superintendent of Locomotive Department. Dunedin, 10th April, 1880.
- 79E. Mr. Frank W. Petre, engineer and architect, Dunedin, 13th April, 1880.
- 79F. Chairman, Walton Park Coal Company, Dunedin, 15th April, 1880.
- 79G. Commissioner of Railways, Middle Island, Dunedin, 17th April, 1880.
- 79H. Chairman, Walton Park Coal Company, Dunedin, 15th May, 1880.
80. Mr. James Archibald McIlwraith, Homebush, 28th May, 1880.—Evidence on the coal-mining and other industries in the district, showing how the White Cliffs Railway has developed them; but is of opinion that another line is required between Sheffield and the Rakaiia to open out the valuable deposits of coal, fireclay, &c. A grievance that is felt severely are the railway regulations, which give great annoyance without producing any benefit to the railway. If these were remedied it would be a great boon to the district.

DRAIN-PIPES, POTTERY, ETC.

81. Mr. Thomas Buxton, Makarewa, 24th March, 1880.—From his experience the last ten years as drain-pipe manufacturer, and his intercourse with farmers, is of opinion that a Drainage Act in Southland would be most beneficial, and give employment to large numbers of the working-classes. Does not believe in attempts to force on manufactories by Government aids.
82. Mr. William Plant, Thames, 25th March, 1880.—Recommending assistance to be given for the manufacture of earthenware; and, if proper works were started, insulators could be made in the colony. Does not recommend further protective duties.
83. Mr. William Plant, Thames, 20th April, 1880.—Recommendations for the establishment of an earthenware factory: A, an advance of £500, to be secured on the plant until repaid; B, the monopoly of the manufacture of insulators for the Telegraph Department for five years; C, carbonate of lead, borax, and plaster of Paris to be admitted free of duty.
84. Mr. George Boyd, Newton, 16th April, 1880.—Recommending a heavy duty to be placed on common pottery, drain-pipes, firebrick, and fireclay goods; a lighter duty on china, porcelain, or parian; and that all paints, glazes, clay, or minerals used in the manufacture of pottery be admitted free.
85. Messrs. Austin, Kirk, and Co., W. Neighbours, and Ford and Ogden, manufacturers of drain-pipes, &c., Christchurch, 17th April, 1880.—Urging the necessity of a duty of 15 per cent. being placed on imported drain-pipes, a duty of £2 per 1,000 on firebricks, and 20 per cent. on brown earthenware; and a reduction of a halfpenny per ton per mile on their materials and manufactures, and native coal carried by rail.

86. Mr. Henry Bland Kirk, of Messrs. Austin and Kirk, Christchurch, 21st April, 1880.—Evidence on the working of their brick, tile, and pottery factory at Farnley. Owing to the reduction in prices and freights the importers successfully compete; and for that reason, and during the unsettled state of the labour-market, he requests that 10 per cent. or 15 per cent. duty be placed on drain-pipes, 20 per cent. on pottery, and £2 per 1,000 on firebricks, also a reduction of a halfpenny per ton per mile on the carriage of fireclay and native coal by rail.
87. Mr. Woodnorth, pottery works, Waikiwi, 23rd April, 1880.—Describing the difficulties he has struggled through; but is quite satisfied that the industry could be successfully established on its own merits if he had the assistance of £1,000 to develop the trade, as all his manufactures are well received in the local market.
88. Deputation from the Christchurch Native Industries Association, 23rd April, 1880.—Stating that, in spite of their recommendations, drain-pipes are admitted free; in consequence of which the local manufacturers lost the contract tendered for by the Christchurch Drainage Board. There should be a duty of 10 per cent. on them. Protection would cause more competition, and not raise the cost. That, in their opinion, the effect of the increased duty imposed on various articles last year had not raised the price of local manufactures, but rather the reverse. In the leather trade goods were sold as cheaply as before; but the trade could not have grown without the duties, and the remissions made last year appreciably helped the industry. Also drew attention to the simplifying of the patent laws; the desirability of planting the reserves with hickory, ash, elm, &c.; the inability at present to manufacture twine for reaping-and-binding machines; the question of linseed-oil manufacture, and flax-pulp for paper-making; and that readier facilities for analysis or supplying information be afforded by the Canterbury College.
89. Mr. C. S. Reeves, Milton Pottery Works, Dunedin, 18th May, 1880.—Evidence on the Milton Pottery Works, which he hopes to make a success. The increase in the duty will go far towards it. Thinks demijohns might be raised to 15 per cent. duty, and drain-pipes be charged 10 per cent. duty; but the question arises how far the tariff should go on the side of protection. Is quite satisfied with 15 per cent. duty on earthenware, which gives a great advantage to the colonially-made article.
90. Mr. James Ford, of Messrs. Ford and Ogden, Glentunnel, 28th May, 1880.—Evidence stating that a reduction in the railway rates on their goods and coals would be very beneficial.
91. Mr. Thomas Condliffe, terra-cotta manufacturer, Glentunnel, 28th May, 1880.—Evidence on the manufacture of terra-cotta, the chief drawback to this industry being the high rates charged by the railway on his goods and coal. Draws attention to the advantages a line of railway would be through the district.

DRUGS, ETC.

92. Messrs. Kempthorne and Prosser, Dunedin, 14th April, 1880.—Submitting a long list of articles which they desire should be admitted free of duty; also a number of other articles upon which duty should be placed. Also suggesting the importance of rendering assistance, by bonus or otherwise, for the establishment of a sulphuric-acid manufactory.
93. Mr. Joseph Burgess, Auckland, 22nd April, 1880.—On the manufacture of laundry-blue; requesting the Government to remit the duty on ultramarine and impose a prohibitive tax on imported blue.
94. Mr. Slesinger, veterinary surgeon, Dunedin, 14th May, 1880.—Evidence on the value of his medicines; but that he requires a duty of 75 per cent. to 100 per cent. on imported patent medicines to enable him more successfully to compete with them.
95. Mr. James Neil, medical botanist, Dunedin, 20th May, 1880.—Stating that he has to pay the same rate of duty on raw material used in the manufacture of medicine as on the manufactured goods, and trusts this may be rectified.

FISHERIES AND FISH-CULTURE.

96. Mr. R. Scollay, Bluff, 12th April, 1880.—Recommending that the high rates charged by the railway for the carriage of fish and oysters be reduced, as it is depressing to the fish trade.
97. Mr. Thomas Thomson, Bluff Harbour, 13th April, 1880.—Remarking upon the various industries in that district—namely, whaling, fishing, timber trade, flax, &c., and recommending that the rates for the carriage of fish by rail should be exceptionally low, and a train run every morning from the Bluff to Dunedin. Draws attention to the patent laws, which ought to be entirely repealed, and a simple and cheap method devised for making an invention the property of the inventor.
98. Mr. Charles Traill, Stewart Island, 30th April, 1880.—Referring to the depression of the fish and oyster trade, is of opinion that the high rates charged for the carriage of fish by rail operate against the various centres of population being supplied with fish. Mentions the other industries on the Island, and thinks that shipbuilding might be carried on with advantage. Several valuable minerals are known to exist; but much of the Island is still a *terra incognita*, and he trusts a scientific examination may be made of it at no distant date.
99. Mr. J. A. Morgan, Christchurch, 11th June, 1880.—Suggesting the establishment of a fishing station in one of the sounds near D'Urville Island, thereby materially benefiting the country and adding to the revenue. The outlay required would not exceed £4,000, and he would assist in bringing it into working order.

FISH-CULTURE.

100. Mr. A. M. Johnson, Opawa, 19th April, 1880.—Evidence on fish-culture, with which he has been very successful; but to make it a complete success it is necessary that he should have permission to capture fish and collect ova during the close season. He has applied to the Colonial Secretary, but, owing to the determined opposition of the Acclimatization Society, his request has been refused. The correspondence is herewith submitted.

101. Mr. S. C. Farr, Honorary Secretary, Canterbury Acclimatization Society, Christchurch, 22nd April, 1880.—Referring to Mr. A. M. Johnson's accusations against the Society, the injustice he endeavours to make out is purely imaginary on his part. Gives his version of the state of affairs, and encloses copy of a letter he sent to the Colonial Secretary on the subject.
102. Mr. J. A. R. Menzies, Dun Alister, Wyndham, 22nd May, 1880.—Giving information with reference to the naturalization of salmon in the colony, and their prospective value as a source of wealth. Copies of letters to the Colonial Secretary and a paper on the same subject are attached.

HAT TRADE.

103. Mr. Masters, Dunedin, 18th May, 1880.—Evidence on the depressed state of the hat trade in Dunedin, and asking for a duty of 25 per cent. on imported hats.
104. Mr. Charles Hill, Wellington, 1st June, 1880.—Evidence on the hat trade in Wellington which is in a very satisfactory state, and does not require any further assistance.
105. Mr. Henry Krause, furrier, Wellington, 2nd June, 1880.—Evidence on the value of rabbit-skins, and the large industry which might spring up in Southland, &c., if the skins were properly preserved, and how the "rabbit nuisance" should become a large source of wealth and revenue.

IRON.

106. Mr. Edward Metcalf Smith, New Plymouth, 17th March, 1880.—Stating that he can prove that all the plant and rolling-stock for the railway and other public works can be made in the colony of colonial material at a cheaper rate and of a better quality than that which is imported.
107. Mr. John Marshall, Collingwood, 17th April, 1880.—Evidence showing that the iron ore in the district is of a hematite quality, is in great quantity, and could be easily worked, as all the necessary material is on the spot in abundance.
108. Mr. Richard Wilson, Auckland, 7th May, 1880.—Evidence stating that, from the samples of iron ores and coal from various places which he has examined, he considers those in the neighbourhood of the Westport Colliery the most promising for iron-smelting. Understands that the Government is establishing furnaces and rolling-mills, which would be most detrimental to any private firms.
109. Mr. Andrew Wild, Auckland, 7th May, 1880.—Evidence stating that, from his experience, the best iron can be made from New Zealand ores. Suggests that a bonus of £1 per ton be offered for finished bars, rails, wire, &c., and a bonus of 5s. per ton for pig-iron, for five years or so.
110. Mr. T. K. Macdonald, Wellington, 31st May, 1880.—Evidence concerning the New Zealand Titanic Steel and Iron Company, of which he is secretary, showing the result of their attempts to produce iron from the Taranaki ironsand at a reasonable cost, which has proved a failure. The Company are of opinion that the cost of production will always far exceed the value of the manufactured import.
111. Hon. J. Macandrew, Wellington, 19th July, 1880.—Is of opinion that the difficulties in smelting the Taranaki ironsand are greatly magnified, and believes that the whole of the railway wagon and carriage wheels might be cast from Taranaki ironsand pigs.

JEWELLERY.

112. Mr. A. Reynolds, Auckland, 24th March, 1880.—Stating that, since the rough greenstone has been exported, and returned in a manufactured state, the trade has been ruined, and asks for a duty of 100 per cent. on all manufactured greenstone articles.
- 113 and 114. Mr. A. Reynolds, 14th April, 1880; Messrs. A. Reynolds and C. Goodwin, 6th April, 1880.—On behalf of the trade ask for 100 per cent. duty to be placed on manufactured jewellery, and that gallery machine work of gold in the rough, jewellers' and lapidaries' tools and materials, may be admitted free.
115. Messrs. A. Reynolds and Seymour Wells, Auckland, 30th April, 1880.—Evidence on the jewellery trade, that it is unable to compete with the importer unless a duty of 100 per cent. is imposed on imported jewellery.
116. Mr. Baxter, Dunedin, 18th May, 1880.—Evidence on the present depressed state of the jewellery trade, and asking for protection and an export duty of 2s. per pound on rough greenstone; recommending that an expert be employed to examine all jewellery and fancy goods imported, to prevent the smuggling of real gold jewellery; and complaining of the appropriation of their patterns by the Home manufacturer.

LEATHER TRADES.

117. Mr. C. C. Fleming, Auckland, 14th April, 1880.—Submitting a list of articles required in boot-manufacture that should be exempt from duty, as they are not interpreted by the Customs authorities as included in grindery.
118. Messrs. A. R. and F. Goodacre, Auckland, 16th April, 1880.—Asking that the duty be taken off sewing-machine silks and threads, kid-skins, French calf-skins, and boot-looping, and that the duty on uppers be raised to 25 per cent.
119. Mr. James Wiseman, Auckland, 19th April, 1880.—Submitting a list of articles in the saddlery trade that he desires to be admitted duty-free; and asking for a protective duty of 15 per cent. or 20 per cent. on manufactured saddlery and harness imported.
120. Mr. Thomas Freeman, Auckland, 10th May, 1880.—Owing to the exemption of duty upon lasts, his trade of last-making is seriously injured, and he cannot now compete with imported lasts. Asks for some assistance.

121. Mr. Charles Coombes, of Coombes and Son, tanners, Dunedin, 18th May, 1880.—Evidence on the leather trade between Australia and New Zealand, and asking for a duty of 30 per cent. on leathers, to enable them to compete. They are obliged to use imported bark, as they cannot procure native bark from want of facilities.
122. Mr. Allan McLeod, Dunedin, 24th May, 1880.—Forwarding a letter from the Dunedin Boot-manufacturers' Association.
123. Mr. A. H. Shelton, Secretary, Dunedin Boot-manufacturers' Association, Dunedin, 22nd May, 1880.—Giving their views upon the question of protection in reference to their trade; that Government is morally bound to find employment for all classes of labour, and that additional duty must be put upon all descriptions of manufactured goods imported, and that all material used in the trade that cannot be produced in the colony should be admitted free.
124. Deputation of the boot and shoe-makers of Wellington, 1st June, 1880.—Being of opinion that the time has arrived for New Zealand to protect her industries, they recommend that a duty of 40 per cent. *ad valorem* should be placed upon all manufactured goods imported, considering that an *ad valorem* duty would be the fairest for all branches of their trade.
125. Mr. J. E. Evans, saddler, Wellington, 2nd June, 1880.—Evidence suggesting that machine-belt and harness compositions should have a duty of 15 per cent. put on them; that leather and copper rivets for hose-pipes be admitted free, or that a duty be charged on imported hose-pipe; and that machine-threads and brown kangaroo-skins be admitted free. Considers that the present tariff of 15 per cent. has been very satisfactory.
126. Mr. Alfred Tyer, Wellington, 4th June, 1880.—Evidence stating that he is a tanner, and asking for the remission of duty on saffron.

METAL TRADES.

127. Messrs. A. and G. Price, Grahamstown, 13th April, 1880.—Stating that they are in a position to manufacture nearly any article in general engineering, iron and brass founding, &c., required in New Zealand; but at present they are far from busy. They are of opinion that a duty should be levied on all kinds of machinery imported; that the Government should import only what cannot be manufactured in the country, and that Government contracts should be let to local manufacturers.
128. Messrs. Kincaid, McQueen and Co., Dunedin, 14th April, 1880.—Referring to their own particular branch of industry as engineers, millwrights, shipbuilders, &c., they regret that the Governments during the last eighteen years have given them so little encouragement, by having imported about 90 per cent. of the machinery and ironwork used by the State. After remarking on the large private contracts they have successfully carried out, they are of opinion that the whole of the colony's requirements in machinery, rolling-stock, &c., including locomotive engines, can be produced in the colony as cheaply as what is imported. They enclose certificates from the District Engineer on the satisfactory working of the steam-dredge at Greymouth.
129. Mr. Charles Hawkeswood, Staffordshire Ironworks, Auckland, 16th April, 1880.—Forwarding a list of articles in his business which he considers can be manufactured with advantage in the colony if a protective duty were put upon imported articles as per list, and recommending that a small bonus should be offered for the production of coal fit for coking and working iron generally; also, a bonus for the production of pig-iron and steel.
130. Mr. Charles Woolgar, Auckland, 16th April, 1880.—Requesting that the duty be increased on colonial ovens imported from Australia.
131. Mr. G. Daniel Burke, Auckland, 16th April, 1880.—Requesting that a duty of 25 per cent. be imposed upon imported bellows, and that all ironmongery, tacks, nails, &c., be admitted free when required for manufacturing purposes.
132. Messrs. Scott Bros., Christchurch, 19th April, 1880.—Being of opinion that their particular industry (iron and metal trade) should be encouraged by the imposition of protective duties, they enclose a list of articles with their recommendations as to the alteration in the tariff.
133. Mr. Henry Waite, tinsmith, Auckland, 30th April, 1880.—Evidence stating that he was not aware tinsmiths' fittings were free, and recommending that a heavier duty be imposed on imported tinware.
134. Mr. George McCaul, tinsmith, Auckland, 13th May, 1880.—Evidence suggesting that an additional duty of 10 per cent. be placed upon stamped tinware, galvanized-iron buckets, tubs, &c.
135. Mr. G. Thornicroft, Dunedin, 17th May, 1880.—Stating the difficulties he has had to contend with as a stove and range maker, and thinks that Government might help such men as he by giving a piece of land by the side of a railway at a nominal rent for ten years, with option of purchase. Thinks that neither free-trade nor protection will ever make work for the unemployed.
136. Mr. A. Burt, of Messrs. A. and T. Burt, Dunedin, 18th May, 1880.—Referring to their trade (coppersmiths and plumbers), the alterations in the tariff last year meet with approval with the exception of the exemptions, which, in the opinion of the trade, ought to be wiped out. Is of opinion that the 15-per-cent. duty is a protective one, but would sooner have the old rate of 10 per cent., and the exemptions abolished. Encloses list of exemptions.
137. Messrs. Reid and Gray, ironfounders, Dunedin, 18th May, 1880.—Evidence stating that they have little to complain of with the exception of the duty upon timber, which they desire should be abolished.
138. Messrs. Fraser and Tinne, Auckland, 27th May, 1880.—Complaining of an especial hindrance to private industry from which they have suffered ever since the initiation of the Public Works

policy, namely, the competition by the Government workshops in the manufacture of machinery and other things for which they had specially laid out their plant; also the competition of the Public Works Department in the labour-market by offering higher wages than the current rate.

WOOLLEN MANUFACTURES.

139. Mr. W. Steele, Hamilton, April, 1880.—Enclosing a suggestion from a Mr. Potter regarding the manufacture of flannel.
140. Mr. Albert Potter, Hamilton, 18th March, 1880.—Suggesting the disseminating of the hand-loom throughout the colony for the manufacture of flannels, blankets, serges, carpets, &c., as a means of employment for the increase of population.
141. Mr. Isaac Wilson, Kaiapoi Woollen Factory Company (Limited), 20th April, 1880.—Evidence on the working of the factory; and stating that, although every economy is practised, but a small profit is made, the cause being that they cannot compete with the British flannels, blankets, and yarns, which in many cases are not made of pure wool. Is convinced that more duty must be imposed on the imported goods if the factory is to pay.
142. Joint letter from the managers of the Mosgiel, Roslyn, and Kaikorai Woollen Factories, Dunedin, 16th April, 1880.—They consider that no addition to the existing rate of duty is necessary, but that the direction in which they could be assisted would be by the relaxation of the Employment of Females Act.
143. Notes of a visit by the Commission to the Mosgiel, Roslyn, and Kaikorai Woollen Factories, 17th May, 1880.—The factories were found in full working order, and the arrangements at Mosgiel and Roslyn seemed perfect, the rooms being well ventilated and comfortable. On examining some of the hands at each factory in reference to the operation of the Employment of Females Act, at Mosgiel they were in favour of working longer hours, but at the other two they were unanimous in considering that they worked quite long enough.
144. Messrs. Ross and Glendining, Roslyn Woollen Mills, Dunedin, 2nd June, 1880.—Asking that “all yarns for weaving purposes only” may be admitted free of duty, forwarding sample.
145. Mr. W. Seed, Secretary of Customs, Wellington, 5th June, 1880.—Stating that the sample of weaving-yarn forwarded is liable to 15 per cent. *ad valorem* duty, and that if these fine yarns are to be admitted free, the degree of fineness must be definitely specified; but their admission free would reduce the receipts of duties on imported woollens made of these yarns.
146. Mr. John Morrison, manager, Mosgiel Woollen Factory, Dunedin, 9th June, 1880.—Stating that the directors decidedly oppose the admission of “yarns for weaving purposes” duty free, as it would mean ruination to the native woollen industry.
147. Mr. Isaac Wilson, Kaiapoi Woollen Factory Company (Limited), Kaiapoi, 11th June, 1880.—Stating that they would not ask for “yarns for weaving” to be admitted free, but think that a small additional duty on woollen goods would be advantageous.
148. Mr. T. G. Pascoe, clothing-manufacturer, Dunedin, 18th May, 1880.—Asking for a reduction to 5 per cent. on certain articles used in trimmings; but, if this affects the revenue too largely, an additional 5 per cent. might be put upon men’s, youths’, and boys’ manufactured clothing.
149. Mr. Absolon Smith, tailor, Dunedin, 18th May, 1880.—Suggesting that, as all Volunteer uniforms are to be scarlet, the Government should call for tenders for the tweed in the colony and supply it to the companies, as is done in railway uniforms.
150. Messrs. Brown, Ewing, and Co., Dunedin, 26th May, 1880.—Evidence on the operation of the Employment of Females Act as affecting their business of drapers, asking for amendments of some of its provisions. Are satisfied with the working of the present tariff.

TECHNICAL EDUCATION.

151. Mr. F. G. Stedman, Christchurch.—Forwarding a prospectus of the School of Agriculture of the Canterbury College.

MISCELLANEOUS.

152. Mr. William Daniel, Dipton, 5th April, 1880.—Recommending the establishment of a glove-manufactory as being well adapted to the natural advantages which exist in the district.
153. Mr. T. W. Hacket, Nelson, 6th April, 1880.—Pointing out the importance of working the reefs of chrome ore which exist in the district.
- 154 and 155. Mr. E. Dutton, Auckland, 7th April, 1880; 17th April, 1880.—Suggesting that the duty on corks and all articles made from cork should be raised to 25 per cent., and that cork trees be planted on waste lands.
- 156 and 157. Mr. K. L. Koeford, Grahamstown, 13th April, 1880; 13th May, 1880.—Asking that no duty may be put on glass bottles, and that the duty on sugar, vinegar, and spices used in the manufacture of sauces may be reduced.
158. Mr. Albert Beetham, Auckland, 3rd May, 1880.—Evidence stating that he does not wish for a duty upon glass bottles, and thinks that the duty on pickles might be raised to 1s. 3d. per dozen pints, and the same on preserved fruits.
- 159 and 160. Mr. E. R. Edwards, Thames, 13th April, 1880; 13th May, 1880.—Being a manufacturer of pigments for the production of paints, he considers the industry requires protection, suggesting the following: Paints, wet or dry, 20 per cent.; polishing-paste and powder, 25 per cent.; whiting and chalk, 5s. per hundredweight; varnishes, 2s. per gallon.
161. Messrs. Atkinson and Co., Newmarket, 17th April, 1880.—Stating that they are manufacturers of paint-oil and varnishes from waste kauri-gum, and asking for a heavier duty on varnishes.
162. Mr. Joseph Stacey, Auckland, 19th April, 1880.—Asking for additional duty of 1d. per pound on imported confectionery.

- 163 and 164. Mr. E. Waters, Auckland, 13th April, 1880; 30th April, 1880.—Asking for additional duty of 2d. per pound on lozenges, &c., imported; that gum arabic and almonds may be free; and for a drawback on sugar used in confectionery.
165. Mr. E. Waters, Auckland, 17th May, 1880.—Bringing to notice the practice of allowing a drawback of 2d. per pound on English lozenges, &c., for export to the Islands from Auckland, which injures his trade.
166. Mr. Joseph Bennett, Auckland, 19th April, 1880.—Giving information that there is at Kamo an extensive quarry of merchantable marble, which the proprietors are willing to work if the Government will grant them a subsidy of £1,000.
- 167 and 168. Mr. A. B. Donald, Auckland, 22nd April, 1880; 1st May, 1880.—Drawing attention to certain anomalies in the tariff by which his trade is injured, fishing-nets being free, while the twine for making them is charged 15 per cent. duty; the same with tarpaulins. Asks that netting, seaming, and roping twines may be admitted free, and a duty put on imported nets and tarpaulins.
169. Messrs. Mason and Struthers, Christchurch, 23rd April, 1880.—Stating that, as harvest binding-twine cannot be made this year by the local twine-manufacturers, they hope a duty will not be imposed upon it.
170. Mr. J. Hardy Marshall, Kawakawa, 5th May, 1880.—Evidence on the kauri-gum trade, and thinks that Government ought to derive some revenue from the gum-fields.
171. Mr. B. Blakey, Auckland, 8th May, 1880.—Evidence stating that he is a mast, block, and pump maker, and complaining that, whereas blocks are admitted free, he has to pay duty on galvanized sheaves for the blocks he makes; and thinks the blocks should be charged duty, and the sheaves should be free.
172. Mr. J. A. Wilson, Auckland, 10th May, 1880.—Evidence stating that he is the owner of White Island, and a sulphur-manufacturer, and requesting that the duty on sulphur may not be removed, but increased. Regarding sulphuric-acid manufacture, he recommends that a duty of 15 per cent. be put upon the imported article, which would soon cause the establishment of a factory in the colony.
173. Mr. Alfred Oldham, Orakei Road, Remuera, 12th May, 1880.—Evidence stating that he is a manufacturer of floor-matting from *Phormium tenax*, and asking for a sufficient duty to prevent importation. He is unable to secure the contract for the Railway Department, because all the store contracts for each class of articles are let to one man, an importer.
174. Mr. J. C. Williams, Grahamstown.—Evidence stating that he has discovered a vein of lead ore, and wishing that the Government Analyst would ascertain the cost of separating the ore. Brings to notice that many minerals could be profitably worked if a lease other than a gold-mining lease was granted.
175. Mr. J. B. Bradshaw, Dunedin, 18th May, 1880.—Presenting the views of a constituent of his on the manufacture of bottles, suggesting that a duty of 7d. per dozen be put upon imported bottles.
176. Mr. S. de Beer, Dunedin, 18th May, 1880.—Evidence on rope-manufacture, and asking that the duty upon imported rope may be increased by £2 10s. per ton, and that the charges by the railway on hemp be altered from measurement to weight.
- 177 and 178. Mr. B. S. Corlett, Tauranga, 20th May, 1880; 25th May, 1880.—Drawing attention to the good building-stone that is found at Wairoa, easily procurable at a small cost; and thinks that Government should take some steps to acquire possession of the quarry, and the timber-reserves between it and Lake Taupo; also brings to notice the necessity for improved communication between Tauranga and Lake Taupo.
179. Mr. W. R. Williams, Wellington, 25th March.—Calling attention to the light dues and port charges vessels are subject to; and suggesting that they should be on the same basis as in Victoria and New South Wales; also to the heavy charges between this port and Westport and Greymouth.
180. Mr. J. Rees George, Wellington, 31st March, 1880.—Giving information that the Patent Slip Company can carry out repairs to wooden vessels, and that they built a schooner of eighty tons; but that the latter experiment was a serious loss, offering no inducement to proceed further with that industry while the present depression exists.
181. The Chairman, Mongonui County Council, 2nd April, 1880.—Is of opinion that the only benefit Government can confer is the opening-up of the district by making roads. There are indications of coal in various parts, requiring a State grant of £500 to test them.
182. The Chairman, Clyde County Council, Wairoa, 6th April, 1880.—Giving a list of existing industries, and recommending that a premium be offered for a bark suitable for tanning, a bonus for the first ton of dressed flour, and for the production of paper.
183. The Secretary, Canterbury Chamber of Commerce, Christchurch, 9th April, 1880.—Forwarding resolution passed—namely, that relief may be afforded to local industries by the remission of Customs duties on articles imported and used for manufacturing purposes.
184. Borough Council Office, Masterton, 10th April, 1880.—Giving a list of existing industries, and recommending the establishment of a woollen factory, an oatmeal factory, a pottery, a tannery, and the manufacture of cement.
185. The Mayor of Hokitika, 10th April, 1880.—Forwarding a report, dealing principally with the main industries of the Coast, and recommending that the prospecting for gold and silver should be encouraged by way of subsidy, and that large rewards should be provided for discoverers of new gold fields; stating that the supply of timber is practically unlimited, comprising the most valuable hardwoods, the trade in which will doubtless improve when the harbour works are completed. Coal and copper are known to exist, and there is splendid marble at Caswell Sound, and lithographic stone at Abbey Rocks, for the working of both of which bonuses are recommended to be offered. The greatest drawback to every industry is the want of railway communication between the East and West Coasts.

- 186 and 187. Messrs. J. Renshaw and John H. Smith, Grahamstown, 13th April, 1880.—Requesting that as many pounds of blasting-powder as they may require in any one day may be issued on one license, instead of a separate license for each 50-lb. as at present; asking also that miners' shovels may be admitted free.
188. The Chamber of Commerce, Invercargill, 14th April, 1880.—Recommending a system of liberal bonuses for the production of manufactured goods, in order to equalize in some degree the difference in the rate of wages between this and older countries.
189. Auckland Working-men's Political Association, 16th April, 1880.—Forwarding their suggestions as to alterations in the tariff, and drawing attention to the competition by American bottoms on this coast, and to the encouragement of sugar-refineries and paper-manufactories in the colony.
190. Mr. W. Service, Karangahape Road, Auckland, 17th April, 1880.—Recommending the adaptation of the American plan of offering free grants of land or a remission of taxes to induce men of capital to establish factories in the colony.
191. Mr. James Hanan, Invercargill, 17th April, 1880.—Giving a list of articles which might be produced in the colony, instead of depending upon importation—namely, monumental stone, linseed-oil, paints, window-glass, bar-iron, cement, brickmaking-machines, pickles, and paper for newspapers.
192. Mr. J. L. Sinclair, Auckland, 25th March, 1880.—Stating that he drew up a tabular statement of the industrial progress of the colony, which was printed in the *New Zealand Herald* of 3rd January, 1880, and which might be useful for reference.
193. 19th April, 1880.—Enclosing copies of correspondence with the Hon. Donald Reid, in 1877, on the subject of fostering new industries in the colony: and recommending the establishment of a central Board of Trade, Manufactures, and Commerce, or the appointment of a Minister of Agriculture and Commerce.
194. The Chairman, County Council, Whangarei, 21st April, 1880.—Giving a list of existing industries, and suggesting the opening-up of the district by the formation of good roads and railways.
195. Mr. J. J. Macdonald, Winton, Southland, 23rd April, 1880.—Suggesting that lime should be carried by rail at the same rates as native coal, as lime is such a necessity on the cold, wet lands in parts of Southland.
196. Mr. Richard Morris, Waikiwi, 23rd April, 1880.—Asking for assistance to enable him to develop a fire-escape of which he is the inventor, sending a sketch, and a certificate from the District Engineer.
197. The Chairman, County Council, Carterton, 18th May, 1880.—Recommending the fostering of quick means of communication with foreign markets—namely, England, Queensland, New Caledonia, and Fiji—thereby enabling the colony to dispose of its produce.

THE EXHIBITION OF LOCAL INDUSTRIES AT CHRISTCHURCH.

198. The Hon. the Premier, Government Offices, Wellington, 27th July, 1880.—Forwarding the report of a Committee appointed to inspect the Exhibition of Colonial Industries at Christchurch.
199. Mr. E. Wakefield, Christchurch, 24th July, 1880.—Reporting on the Exhibition of Colonial Industries at Christchurch, and forwarding various communications received.
200. Mr. Piper, Christchurch.—Notes on the tinware trade, and stating that in the commoner class of tinware manufacturers can hold their own, but in the better class of goods they cannot compete with the importer; and asking for an increase of duty on such goods.
201. Messrs. B. Hale and Co., Christchurch, 20th July, 1880.—Stating that they are exhibiting one of their own make of aprons for reaping-and-binding machines, and pointing out that they have to pay heavy duty on the raw material, duck and ash sticks, while the importers get them in free as extras. Also that when tenders for tarpaulins are called for by the Railway Department more time should be given.
202. Deputation of hat-manufacturers.—Bringing to notice that they, as journeymen-hatters, are under great disadvantages with regard to the importers, and requesting that a protective duty may be put upon hats.
203. W. Moor and Sons, carriage-builders, Christchurch, 20th July, 1880.—Stating the advantages to their trade since the duty has been taken off most of the material used by them.
204. Mr. A. G. Howland, carriage-builder, Christchurch, 21st July, 1880.—Giving information as to the number of hands employed in the trade at Christchurch, and the rate of wages.
205. Mr. A. G. Howland, 22nd July, 1880.—Stating that he is not able to compete with the cheap surplus stock that is imported, and recommending an additional duty of 5 per cent. Suggests the planting of hickory, oak, ash, and elm trees on the railway reserves.
206. Alexander Aulsebrook, Christchurch, 22nd July, 1880.—Bringing to notice his manufacture of cardboard boxes, and asking for protection.
207. F. Jenkins, City Steam Saw-mills, Christchurch, 23rd July, 1880.—Forwarding a list of articles that he exhibited, showing that there is no necessity for importing such goods.

APPENDIX.

AGRICULTURAL INDUSTRIES.

LINSEED, CLOVER, FLAX.

No. 1.

Mr. E. PILBROW to the Chairman of Local Industries Commission.

SIR,—

The Willows, Temuka, March, 1880.

It has been with the warmest interest that I have, during the past week or two, noted among the telegrams the wise step taken by the Government in calling the "Native Industries Commission." I was not less gratified to see your name among the chosen few, and your subsequent selection as chairman. Although I do not exactly know the purport of the Commission, I presume that it is something kindred to an old hobby of mine, which has for many years been uppermost in my mind—viz., the encouragement by the Government of new remunerative branches of industry. It is on the strength of this that I venture to trouble you with a few hurried suggestions, knowing that you are ever ready to receive the same, if for general progress, and turn them to the best account under your able pen.

It is as Chairman of Commission I address you; and if I am out of place in the following suggestions you must bring me to order. The topic I shall first touch upon is based upon agriculture, with a view to multiplying our (at present) very limited number of payable crops, and moderating our spring white straw crops, the excessive growth of which (as in oats this year) renders them valueless. For many years past I have seen that the growth of linseed and other oil-producing seeds—as rape, canary, &c., would prove remunerative to the farmer for shipping to England, instead of trusting entirely to wheat. By reference to Home papers you will see that such seeds vary less in price (taking an average of years) than corn. Speaking more particularly of linseed, as I have been a grower of small quantities for some years, I can state that it grows most luxuriantly, is the best crop I know with which to lay down clover and grasses, is fewer weeks from seed-time to harvest than any other crop—viz., twelve to thirteen weeks—and will yield an excellent return—I should say not less than 30 bushels per acre on well-farmed land. I have grown more. Its price in London varies from 56s. to 62s. per quarter, and it is principally imported from Russia. The quality of New Zealand seed compares favourably with any I ever saw. It does not end with shipping the seed at a payable price: I think that you will agree with me that the enormous amount of paint and other oils annually imported into New Zealand suggests a very legitimate investment of capital by private parties or companies in erecting mills for its production on our numerous creeks, the propelling power of which is at present wasted. For argument's sake I will name the Opahi Creek, with its enormous and never-failing driving power, where mills may be erected within very short distances of each other. The country for miles around will equal any in the world for production of quantity and quality; while our reclaimed swamps—too rich for corn—would yield enormously, and be ultimately (by judicious farming) made fit for anything.

Touching on oil-mills, no doubt great improvements have been made in machinery since I came to the colony in 1860. The old method of extracting the oil was by means of vertical beams or stampers, which fell with great force into moulds containing the seed. After the oil was quite extracted, the solid remains, with the addition of some bran, turned out the ever-needed oilcake for stock-feeding, which is continually imported here for our choice studs. Mills need not be confined to the manufacture of oils, as the same power can be utilized for corn-mills, clover-seed mills, machinery for dressing the straw of the linseed into useful fibre for the manufacture of bales, sacks, or sail-canvas here or in England, saw-mills, &c., according to the locality of the same.

On the subject of clover-seed, it is high time that the production of so important an article of commerce should interest our agriculturists, who, instead of purchasing from importers, should export considerably over their own requirements. This country is excellently adapted both in soil and climate for all kinds, except red clover and cow-grass, which must be imported until the humble-bee or other insect with sufficiently long proboscis for inoculating blossoms can be acclimatized. The apparent dilatoriness in raising these and other remunerative seed-crops is doubtless owing to the comparatively few scattered amongst us who are familiar with their growth in the Old Country, clover-seed only being grown in certain counties, where every village-mill is fitted with its clover-seed dressing machinery, as well as its stones for corn. At the season for threshing the seed-clover stacks (with the ordinary engine and combine) the pips containing the seed are caught underneath on large sheets, loaded in farmers' high-sided wagons, in which they are firmly pressed, and delivered at the mill for grinding and dressing, for which they are paid per hundredweight for clean seed returned. Having had considerable experience in its growth, I shall be most happy any time to render any information that lies in my power. In my observations *re* utilizing the straw from the linseed for the manufacture of a coarse fabric, I omitted to state that for the production of fine linen the flax crop is gathered in a green state before the seed is ripe, and is pulled up and laid out in regular rows to harvest. Our seed-crops may be cut with reaper and binder. Most of our Irish farmers are well acquainted with flax-farming.

As every fresh colonial industry is but a stepping-stone to something further ahead, so I look upon the probable establishment of meat-freezing factories as a stimulant towards our magnificent estates being formed into homesteads, convenient to work, and capable of raising as much on hundreds as is now done on thousands of acres. I refer to a regular system of tillage, with its proper propor-

tion of roots, house and land hold, hay carefully harvested for winter feed, instead of being wasted in summer months, when stock would do on half the acreage, which, with the oil-cake, would form an entirely new branch in our farming—viz., winter yard-feeding for beef and paddock-feeding for sheep, with portable racks, mangers, &c. Not the least important part would be the converting of all straw into manure for the improvement of the land, instead of (as now) every crop rendering it less valuable.

Should you think my humble suggestions worthy of consideration, I shall be most happy to communicate with you in any further details of the same or any other topic with which I am familiar. Not having had my time fully employed for the last year—since Mr. Hayhurst dispensed with my services as his agent and attorney (on the plea of hard times)—I have been on the look-out for some suitable engagement or commission—without success. Indeed, my corn-drills formed my principal source of income during the past winter and spring. Should you like a chat on any topic with which I am familiar, I will meet you by appointment if you give me a few days' notice; or I shall be most happy to see you at my humble cot, where you will find a room for the night, though not a very large one. Trusting my hurried and rambling scribble will not be too much for your patience,

I have, &c.,

EDW. PILBROW.

BULBS, TUBEROUS ROOTS, FLOWER-SEEDS.

No. 2.

Mr. P. T. ADAMS to the Chairman of Local Industries Commission.

SIR,—

Gloucester Street, Christchurch, 11th March, 1880.

I enclose you a few notes relative to my business, in the hope that you may deem it within the scope of your Commission on Local Industries. I note that the *Times* has been howling over the appointment of Commissions, ignoring the fact that they are for the collection of facts upon which future legislation might be based at the discretion of the House. If we define as a local industry one which produces in the colony an article of consumption hitherto imported, I think you will consider that my work during the last five years comes under that head.

I have, &c.,

P. T. ADAMS.

Considerable sums of money are annually sent out of the colony for the introduction of the above, and it was in the hope of diminishing this, by producing a better article in the colony itself, that the growing of bulbs and flower-seeds was commenced by Adams and Sons at Christchurch. The capital employed during the five years the industry has been in existence may be moderately estimated at £4,000, and the returns as yet do not average more than 5 per cent. upon it. This is mainly due to the long period occupied by acclimatizing and raising a stock for sale. When the large amount of capital and labour engaged in similar industries in England and the Continent is considered, it is not too much to say that, if the Government thought it advisable, by bonus or otherwise, to enable this industry to be expanded to a scale commensurate with the wants of the colony, they would strike the keynote of a local industry which must become one of considerable magnitude. The practical benefit of an industry like this will appear to some limited in its employment of labour; but others will recognize the silent influences for good which flowers have upon all classes of society. As bearing upon the good supply of the colony, our importation and acclimatization of the best varieties of potato is probably worthy of note.

ADAMS AND SONS.

The practical results of our work are embodied in our catalogue, which shows that upwards of 1,000 varieties of bulb have been imported and acclimatized.

SUGAR-BEET.

No. 3.

Evidence of JAMES LAIRD, taken by Mr. Commissioner A. J. Burns at Wanganui, 31st March 1880.

MY name is *James Laird*. I have been residing in Wanganui eleven years. I have been twenty-five years in the colony. I have tried the growing of sugar-beet on a small scale, raised from seed procured from France. The proper time to sow the seed is about October. It ought to be at maturity and taken out of the ground not later than April, before it begins to take a second growth. When the root is required for seed purposes, it ought to be lifted and transplanted deeper in the ground in April and May. The seed ought to be ripe in the following February. In order to procure the best and purest seed, care should be taken to select only the best-formed roots, and, if in exposed situations, the seed-plants ought to be supported; the seed is then saved in the ordinary way. Care should be taken to plant sugar-beet roots, when required for seed, at a considerable distance from any other roots of the beet family. When required for sugar-manufacture, sow in drills in the same manner as growing turnips. Keep clean, and hand-lift, care being taken not to break or damage the root. The leaves ought to be twisted off; but the best variety of sugar-beet has very few leaves. Stack the roots in a conical-shaped heap, either in the field or farm-yard, 2 feet wide at the bottom, and thatched with straw or other covering to keep out the wet, or placed in an open shed, heaped full if required; but the roots must be kept dry. I am of opinion that the saccharine matter gets stronger after the root is taken out of the ground. This opinion I arrive at by tasting the root at various times. After this the root is ready for the manufacturer; but I have no experience in manufacture of sugar from beet. It requires about 5 lb. weight of seed to sow an acre. It can be sown by hand, or with the ordinary seed-drill, in rows about 18 to 20 inches apart. When thinning out the plants, leave them about 6 to 8 inches apart in the rows. About 20 to 25 tons of sugar-beet can be grown per acre on the land in the neighbour-

hood of Wanganui. This I would consider a fair crop; 30 tons I consider a heavy crop. In my opinion, the farmer would require from 7s. to 10s. per ton for the beet, delivered at his farm, to make the growing of beet pay any profit; but the farmer would require a guarantee that the crop would be sold at maturity, or he could not grow it at the price mentioned; and the farmer would require to grow a number of acres to pay at that price at all. Should a sugar-mill be started in the Town of Wanganui, or in any central country district, a considerable reduction in the present tariff per rail would require to be made when the beet is carried over a number of miles.

FRUIT-PRESERVING.

No. 4.

Evidence of HENRY BUDDEN, taken by Mr. Commissioner A. J. Burns at Nelson, 2nd April, concerning the Establishment of a Fruit-preserving Factory.

MY name is *Henry Budden*, a nurseryman. I have resided in Nelson two years and six months, and in New Zealand twenty years. I have been following the trade of a nurseryman ever since my arrival. In the course of my trade I have turned my attention to fruit-growing, and am of opinion that the soil and climate of Nelson are peculiarly adapted for the growth of fruit; although there is one kind of red currant (the old variety) which does not succeed well here. To attain a good, sound crop of fruit, the ground must be thoroughly cultivated before planting; and after planting, the trees must be properly pruned and attended to, and strict attention be paid to the nourishment and cleanliness of the trees. For some time back I have turned my attention to the establishment of a fruit-preserving factory at Nelson, and I find that for the successful development of such an undertaking a very much larger area of ground must be devoted to fruit-growing; and by so doing, many acres of land now unoccupied by anything but weeds would be turned to profitable account if fruit was grown upon them. I am of opinion that one man would find profitable employment on four acres of land, confining himself to the growing of small fruit (berries), but would require assistance at first in planting and gathering. He might at the same time grow some of the larger fruits; and, if he confined himself to these, he might after a year or two successfully cultivate twelve acres with the usual assistance in gathering. Eventually the profits derivable from the four acres of small fruit would be about equal to the profits derived from the twelve acres of large fruit, but the four acres would require more labour being expended in any one year. But I am of opinion that it would add to the profits of small-fruit growing to extend the area of ground and employ labour to almost any extent in the cultivation, even more than it would do in extending the area and employing the labour in the cultivation of large fruit. I find from the published statistics that £90,000 is sent out of the country every year for fruit that could be as well and as profitably grown in Nelson. I have gone very closely and accurately into the cost of producing preserved fruits, and have got most reliable data as to the prices charged for the imported article; and am clearly of opinion that, if a factory was established in Nelson, an article could be produced of a superior quality and at a cheaper rate than it can be imported. But, to give a little encouragement to the factory, and to induce the New Zealand public to consume the colonial production, it would be desirable that a duty be placed upon the imported article; and, until sugar-growing is established in the colony, a reduction or a total abolition of the sugar duty would very materially assist the development of this industry; also an abolition or reduction of the duty upon sheet-tin and solder, as a very large quantity of tin is required for the purpose of tinning the fruit for transit, fruit keeping better in tins than in jars or bottles. I am aware that, in anticipation of the establishment of a fruit-preserving factory in Nelson, an extended area of fruit-trees has been planted; and I have no doubt that, if the company was fully formed and in active operation, the supply of fruit of all kinds would find a ready market, and the fruit-consumers of New Zealand would obtain a good, sound, wholesome article, superior to anything that can be imported.

No. 5.

Evidence of SAMUEL CARTER, taken by Mr. Commissioner A. J. Burns at Motueka on the 6th of April, on Fruit-preserving.

MY name is *Samuel Carter*. I have resided in Motueka fourteen years, and in the colony thirty-eight years. I have been an agriculturist and a gardener. I have had considerable experience in growing fruit out of doors. I should say that this district is the best part of New Zealand for fruit-growing: it is not troubled with high winds, enabling the fruit-blossom to be undisturbed when the fruit is forming; and I have never known the blossom to be disturbed by spring frosts. To insure success, thorough cultivation of both tree and land is absolutely necessary—the one by judicious pruning, and the other by care and suitable manuring and clearing. We have been subject to the “American blight;” but it is easily cured. I have had trees so bad with blight that scarcely a leaf remained on them; but by a solution of quicklime and water, freely used through a syringe, it quickly disappears; and by using a little salt with the manure the blight on the roots disappears to such an extent as to be harmless. Two years of this treatment will cure a tree if it is very bad with blight; and I should say dressing once a year was quite sufficient. The manure I prefer is guano and bone-dust, applied as a top-dressing to nourish the surface-fibres and small roots from which the tree draws its fruit-bearing properties. The Cambridge pippin, the French crab, the Ribston pippin, the lemon pippin, and codlin are species of apples very subject to attacks from blight; but by careful treatment these kinds of apple trees can be made good fruit-bearing trees, and will amply remunerate any care bestowed upon them. With regard to small fruit (berries), careful cultivation and pruning is all that is required to produce remunerative crops. Four acres of land would be quite sufficient for one man to attend to properly, and a good living can be made out of it—even more so than one man could make out of a fifty-acre farm either in grass or cultivation, taking into consideration rent, working expenses, and present prices for stock, grain, and fruit. If a man grew all large fruit, he could attend to eight

acres; but if a fruit-preserving factory was established, one man attending to three acres of small fruit would be equally remunerated with the man who grew eight acres of large fruit. But small fruit need not be grown to any extent unless a fruit-preserving factory is established, as already most of the small fruit grown in the district goes to waste for the want of a market; but a factory would give a market for a much larger growth of small fruit than has ever been attempted in this district. I am well aware that tons of peaches and cherries, &c., go to waste in this district every year for want of a market, and also thousands of gallons of bramble-berries. I think an ordinary crop of berries should yield five or six tons of good, sound fruit per acre, and this is not by any means a heavy crop. If a preserving factory was established, the fruit-preserver could afford to give the grower 1½d. per pound for every pound of good, sound fruit delivered at the factory; therefore, at the amount of yield above mentioned, this would average a return of £50 per acre to the grower, and a little more per pound might be given for some kinds of fruit. That the manufacturer can supply a good, sound, well-preserved tinned fruit at prices quite capable of competing with the imported article, is beyond question; and if the consumer in New Zealand will draw the supply of tinned fruit from a New Zealand factory, and the business becomes fully established and enlarged, fruit can be produced at prices defying competition even with the present limited production. I am able to turn out and can sell my preserved fruit at prices fully competing with the imported article. I forgot to mention that I have started fruit-preserving on a small scale, this being my second year. This year I have turned out two tons of preserved fruit, and can sell it readily, my only drawback being the want of capital to make it a larger concern, and so more remunerative. With £1,500 to enable me to erect the necessary plant and buildings, I could preserve all the fruit grown in this district at present being wasted, and could continue to extend the plant and buildings every year as the supply of fruit increased, without requiring any more capital than what would arise from the profits of the business. This I could do more readily as I am residing on freehold property; but from my two years' experience of the business, and the profits derivable therefrom, I am quite prepared to continue the business, allowing it to extend as I am enabled to extend it year by year as the profits accrue, feeling quite sure that eventually it would grow into a large concern. In order to foster this industry and to assist in its development, it would be very desirable that some of the duty should be taken off the best refined sugar, also off tin-plate and solder, so largely required in this manufacture. It must also be borne in mind that the imported article, in the shape of tinned and bottled fruits, is now largely used in New Zealand, and very considerable difficulty is felt in inducing the consumer to use the colonial-made article; therefore any assistance the Commission can give to the development of this industry will be a great boon to the grower and manufacturer, and will largely increase the extent of land in cultivation in this district.

No. 6.

The GISBORNE COUNTY COUNCIL Office to the Chairman of the Local Industries Commission.

SIR,—

4th April, 1880.

I have the honor, by the direction of this Council, to acknowledge the receipt of your circular of the 17th ult., to which I am to reply that this Council thinks the discovery of petroleum and coal, and the growth of tobacco and hops, should receive some attention, as being eminently calculated to lead to great results, and would therefore suggest that a bonus should be offered as a stimulus to persons turning their attention in those directions.

It is thought advisable that such bonus should be local—*i.e.*, that there should be a separate and smaller bonus for each county, and not one large bonus for the whole colony (in each of these separate branches of industry); because, if there be but one large bonus open to the whole colony, many persons would think the chance of obtaining it too remote, and would not compete, the object of offering a bonus being thereby partially defeated.

I have, &c.,

W. H. TUCKER,
County Clerk.

No. 7.

Mr. ROBERT PHARAZYN to the Chairman, Local Industries Commission.

SIR,—

The Poplars, Wanganui, 8th April, 1880.

In reply to your circular I have the honor to inform you that, so far as I am aware, the few local industries pursued in this provincial district have but little connection with agricultural and pastoral pursuits, and that I can furnish no special information about them.

Thinking, however, that the settlers in this neighbourhood might wish to have the opportunity of discussing the matter and making suggestions, I called a meeting to consider the subject generally, and particularly with regard to a letter I received from Mr. A. J. Burns. The result is fairly given in the attached newspaper report, to which I need only add that, in my opinion, any attempts to foster local industries by protection would be most injurious to the real and permanent interests of the colony; and that, beyond collecting and diffusing information, the Government can only directly aid in the establishment of local industries "by"—to use the language of the Oxford Cobden Prize Essay for 1878, on "The Facts and Fallacies of Modern Protection"—"promising to recoup the founder of the industry for what loss he might experience, during a short and definite period, by having to sell his goods at the low rate caused by foreign competition. Provided the most scrupulous attention were paid to the merits of every case, such a policy would at once reward unprofitable trouble and encourage hazardous experiment."

I have, &c.,

ROBERT PHARAZYN,
President, Wanganui Agricultural and Pastoral
Association.

EXTRACT from the Report of the *Wanganui Herald* of a Meeting of Farmers, Settlers, and Others, called by Mr. Robert Pharazyn to consider Suggestions made by the Local Industries Commission.—8th April, 1880.

Local Industries.

A MEETING, called by the President of the Agricultural and Pastoral Association, was held at Mr. Crawford's office on Wednesday. Present: Messrs. R. Pharazyn (Chairman), W. Robertson, W. T. Owen, A. Higgle, H. Owen, W. Lowes, Craig, and Drew.

The Chairman read a circular from the Chairman of the Local Industries Commission, stating it would be happy to receive any information regarding local industries. Another letter from Mr. A. J. Burns, one of the Commissioners, was read. Mr. Burns directed attention, as under, to one or two industries that appeared to him well suited for this district:—

Sugar-beet.—If ever this can be successfully cultivated in New Zealand, and becomes a commercial success, I think it must be grown in this district. The soil is rich, and the climate combines sufficient moisture with temperature admirably adapted to produce abundance of roots, with, I think, sufficient sugar-bearing results to pay. A report on this subject would be highly prized by the Commission.

Butter and Cheese.—Mr. Burns stated that he thought this industry might be greatly enlarged by the establishment of a factory for its production, with a person at the head of it capable of conducting it on scientific principles.

Pigs and Bacon.—This industry would naturally follow the former, and with the refuse from the factories might be cultivated to almost any extent.

Meat Export.—This industry is yet in its infancy, but it seems to me one suitable to this district as a stock-producing locality.

Leather Tannery.—With the large forests in this district, I think bark for tanning purposes might readily be obtained, and this industry be successfully carried on.

After the reading of the foregoing letters, a desultory conversation ensued. Various suggestions were thrown out, and finally the Chairman drew out the following resolutions, which were moved by Mr. W. T. Owen and seconded by Mr. A. Higgle:—

"1. That in the opinion of this meeting local industries cannot be forced into existence by any means at the disposal of the Government or the Legislature, and that they will only gradually grow up as capital becomes more plentiful and labour cheaper.

"2. That, at the same time, any definite information at the disposal of the Government relative to such industries as are referred to by Mr. Burns in his letter of the 31st March should be made as public as possible, with the view of assisting those who contemplate engaging in them."

Mr. Parkinson thought the Government were bound to encourage the growth of local industries. Some four years ago he had published in the *Weekly Herald* a letter in which he had advocated the employment of a hundred thousand pounds out of every million pounds borrowed, for the encouragement of agriculture and industries. He was still of the same opinion, and would move as an amendment, "That Government, in respect of any industry they may decide to encourage, should do so by providing a market, rather than by bonuses or protective duties."

The Chairman could not see how the Government could possibly provide a market. The tendency of such a scheme would be protection in its worst form.

Mr. Parkinson instanced the matter of linseed. He had carefully watched the English market since 1839, and the price had hardly ever varied from 7s. 6d. He proposed that Government should purchase the linseed at a price which would enable them to send it to England and enter the market there. By this method encouragement would be given to agriculture.

Mr. Lowes pointed out that already there were agents and companies who filled the position Mr. Parkinson desired the Government to fill.

The amendment fell through.

Mr. Robertson then moved as an amendment, "That, in reply to Mr. Burns's letter, this meeting begs to offer its thanks for the valuable suggestions in his communication relative to local industries in this district; and, while assured of the fertile resources of this district, and its special adaptation for the several industries referred to, this meeting feels that, unless better outlets can be assured for the productions mentioned, there would not be sufficient inducement for settlers and others to depart from the ordinary agricultural and pastoral pursuits. Any information relative to such raw material, as to price, &c., would demand the most careful consideration of this meeting." Seconded by Mr. W. Lowes, and carried, with two dissentients.

The meeting then adjourned.

No. 8.

The Chairman, HOBSON COUNTY COUNCIL, to the Chairman of Local Industries Commission.

SIR,—

Paparoa, 9th April, 1880.

I have the honor to address you respecting the local industries in this county, and am sorry to say that, owing to the small amount of assistance received from the Government towards the formation of roads, most of our industries so far have been unsuccessful.

The mills in the timber trade on the Wairoa River, although in a depressed state now, have paid, and no doubt will again.

The flax-mill on the Kaihu River is closed, owing to the cost of transit.

Lime-burning on the Wairoa River is in a state of collapse, owing to the want of roads to the river and inland.

The rope and matting factory (from New Zealand flax) in Paparoa is closed from bad roads and heavy freights. The Auckland merchants informed the owner that the freight of cocoa-nut-fibre matting from England was less than on his matting from the Kaipara; and as they held shares in the shipping they supported their own vessels.

The pottery works at Paparoa are closed, owing to the same (roads and freights).

The owners of the brick and tile yards at Paparoa have gone to considerable expense in machinery; their bricks, &c., are the best in the Auckland Province: and yet they will be obliged to close the yards and move their machinery elsewhere, owing to bad roads and heavy freights.

We grow wool and send it to England to be manufactured into cloth, &c., and then import back again. We have a gentleman here in the county who, if he saw the slightest chance of success, would commence a woollen factory, he having the requisite knowledge of the work, and means of doing it. No roads and the cost of freights bar this industry.

We have a steam flour-mill on the river. We do not grow wheat, because we cannot get it to the waterside, and wheat for the mill must come from Sydney or Adelaide. Every settler must use a sledge or nothing, as we have no roads for wheeled vehicles. There is a two-wheeled dray about five miles from here on the road; it has been there to my knowledge for the last six months, and cannot find a purchaser, and the owner leaves it there to rot, not being able to use it.

We have some of the finest land in the colony in this county, and could grow all kinds of fruits in abundance; and if we had roads to a market could supply the whole colony with jams and canned fruits, for which we now pay large sums annually to Tasmania and the United States.

Grapes we could grow in any quantity, and we now grow more than we can consume; and it pays to grow them if we had a market, as we get 20s. per 100 lb. for them here; but we cannot get them to Auckland, though it would pay at that price.

Help us to get roads, and the despised North will show you what it can do in the way of local industries.

I have, &c.,

W. WHITAKER ARIELL,
Chairman.

No. 9.

The Chairman, RODNEY COUNTY COUNCIL, to the Chairman of the Local Industries Commission.

SIR,—

Warkworth, 16th April, 1880.

I have to acknowledge receipt of your circular requesting information regarding the local industries and manufactures in this district.

In reply, I have the honor to inform you that, although no county in New Zealand offers greater inducements for the establishment of manufactories, owing to its unrivalled water-communication and the number of places where water-power is available, the want of capital among the settlers has prevented their embarking in such undertakings to any considerable extent; and the same cause has also retarded the development of the mineral wealth of the county.

A number of settlers have for some years devoted considerable attention to vine-growing and wine-making, an industry to which this part of the colony seems peculiarly adapted. They produce a good, palatable wine. Owing to their limited capital, however, their production is small, and they are unable to compete with the imported Australian wines in the Auckland market. If, however, existing restrictions were removed, so that they might be enabled to dispose of their wine in quantities of not less than two gallons, they would be able to sell in their respective localities more than they can produce. I have been requested to call the attention of the Commission to this matter, hoping they will be enabled to make such a recommendation as may tend materially to assist in developing what is likely to become a most important industry in the district north of Auckland.

As the Commission must be well aware, coal and many other minerals have been found in different parts of the county, but no payable coal seam has yet been discovered. An attempt was made some years since to open a coal mine at Mangawai, but for want of capital was unsuccessful. A recent discovery at the head of the Mahurangi River promises better results, and boring is likely to be commenced forthwith.

The production and grinding of hydraulic lime, which is reputed to be quite equal to cement for many purposes, is the only other industry to which I think it requisite to draw your attention.

I have, &c.,

HENRY PALMER,
Chairman.

No. 10.

The JOINT COMMITTEE of the BOROUGH and COUNTY COUNCILS of the THAMES to the Chairman of the Local Industries Commission.

Thames, 22nd April, 1880.

Report.

A CIRCULAR letter was received from the Chairman of the Royal Commission on Local Industries, appointed by Parliament during the session of 1879, asking for suggestions regarding local industries and manufactures of the district. On receipt of such circular the Borough and County Councils appointed a joint committee to obtain information, and invited, by advertisements, persons to meet them engaged in manufacturing articles, the which manufactures were affected by the tariff now in force in the colony. As the result of that meeting, and of other letters sent to them, find,—

1. That manufacturers of sauces and condiments ask that glass bottles suitable for holding such manufactures should be free, and that the present duties on sugar, vinegar, and spices should be reduced by drawback or rebate, on proof being given that such articles have been used in such manufactures; or, failing this, an increased duty be imposed on imported sauces and condiments, to cover the duty the local manufacturer here has to pay on the articles he uses in their manufacture.

2. That the local industry of fruit growing and preserving, either as whole or tinned fruits, or as jams, should be protected and fostered by an increased duty on the same articles imported. In Melbourne the duty on tinned fruits is 2d. per pound; in America, and also Tasmania, a heavy duty is imposed, yet in these countries labour is much cheaper than in New Zealand—both that of the labourer working

in the orchard, and the artisan making the tins to hold the fruits—thus enabling Tasmania and America to supply the New Zealand market with an industry its own population could profitably produce if assisted by tariff.

3. That New-Zealand-made wine can only now be sold by the publican, the wholesale wine merchant, or the auctioneer. The actual manufacturer of the wine can obtain a license to make it, but no license to sell it after it is made, either to the publican or to the wholesale wine merchant. The only way he can dispose of the wine after he has made it is to send it to auctioneers for sale. The license to manufacture wine should carry with it the power to sell the wine when made, in quantities of not less than two gallons.

4. That the local manufacturers of paints, varnishes, and whitenings ask that the tariff be increased, so as to enable them to compete with the paints and varnishes imported. The Thames especially is rich in such crude requisites as manganese, hematite, copper, ochres, silicates, and kauri-gum. Hematite and silicate paints are manufactured at the Thames, and used even now to a considerable extent. It is asked that the tariff be—on paints, either wet or dry, 20 per cent. duty; on whitenings and chalks, 5s. per hundredweight duty; on varnishes, 2s. per gallon.

5. That the local manufacturers of tinware and articles made from galvanized iron, although using the most improved machinery known in the trade, cannot compete against the imported articles, because the labour here is quite three times that paid at Home: here the pay for one week of forty-eight hours is twice that paid in England for the week's work of seventy-two hours. To meet this great difference in the price of labour, stamped tinware, galvanized-iron buckets, baths, guttering, piping, and similar articles, should have a much higher duty on them than the tariff now gives—at any rate for a few years, until labour is at a lower rate.

6. That the local or the colonial industry of brewing has received a great check from the increased duty laid on English malt and hops last session of Parliament. That either the duty on these articles should be reduced, or an extra duty put on imported beer, especially bottled beer, and so place the local manufacturer and Home maker on fair basis of competition.

7. That the engineers and ironworkers, as a trade, can scarcely compete with the Home manufactures imported, notwithstanding the bulk of the material used by them is duty-free. The skilled labour here is equal in ability to that at Home, but the difference in the value of the skilled labour at Home and here is so vast that the utmost fostering by Government is requisite at present. It would require too heavy a duty to enable locomotives to be profitably constructed; but, with a comparatively slight protective duty, such articles as fixed and stationary steam-engines, saw-mill machinery, quartz-crushing machinery and tailings-reducing plants, water-pipes, bridge-castings, cylinders, &c., could well compete with the imported article, and so give employment to a large number of skilled mechanics. With regard to quartz-crushing machines and reducing plants, the tariff as at present determined enables the neighbouring colonies of Victoria and New South Wales to compete very unduly.

8. That, as artisans' tools in almost all businesses are admitted free, the tool used by the miner, the "miner's shovel," should also be duty-free. At present the gold-miner pays 16½ per cent. on the shovel used by him. Also that the blasting-powder admitted duty-free should not be taxed with a shilling removal license for each 50 lb. removed from the magazine. This removal license, which has to be signed by a Justice of the Peace, is in every way a great hindrance to the miner, who, each time he requires a keg of powder, has to leave his work and search the town through for a Justice of the Peace, and, after thus losing two or three hours, has to pay 1s. for the license. This matter is altogether vexatious, and is productive of so little revenue as not to justify its retention.

Letters bearing on many of the above matters received by the local committee are attached; but the joint committee offer no opinion on the value or otherwise of the suggestions made.

We have, &c.,

LOUIS EHRENFRIED, Mayor.

ALEXANDER BRODIE, County Chairman.

No. 11.

Messrs. EHRENFRIED BROS. and ALEXANDER HOGG to the Local Committee *re* Royal Commission on Local Industries.

GENTLEMEN,—

Thames, 13th April, 1880.

We would direct your attention to the extra duty put on English malt and hops during last session. This will have an injurious effect upon the colonial industry of brewing, unless an extra duty is also put on English beer, especially bottled beer. New Zealand breweries as a rule use English malt and hops only for the production of beer intended for bottling. An extra duty on foreign beer would equalize this matter.

EHRENFRIED BROS.
ALEXANDER HOGG.

No. 12.

Evidence of Messrs. EHRENFRIED BROS. and ALEXANDER HOGG before Mr. Commissioner A. J. Burns.

Grahamstown, 13th May, 1880.

DURING last session of Parliament an extra duty was imposed upon imported malt and hops. We make our finest bottled beers and ales from these imported articles. Since this duty was imposed we find that our bottled ale and beer business has fallen off very much. Now, as this was fostered at a time when there was a small duty imposed upon malt and hops, we think a duty to an equal amount should be imposed upon imported ales and beer. We have no wish to see the duty taken off malt and hops, but we simply ask that, in bare justice to our business, we should be placed in as fair a position as formerly.

EHRENFRIED BROS.
ALEXANDER HOGG.

No. 13.

Mr. RICHARD HUDSON to the Mayor of the Borough of Thames.

SIR,—

Parawai, Thames, 13th April, 1880.

In response to the advertisement in last evening's *Star*, *re* local industries, I beg to say that I have lately commenced fruit-preserving on a tolerably large scale, having put up between 2,000 and 3,000 tins this season; and, while a free-trader in principle, it is my decided conviction that this, as well as other young industries, might with advantage be encouraged until able to cope with the cheap and immense production—say of the United States, where labour is low in value and supply unlimited. I purpose competing at the Melbourne Exhibition, where the duty is 2d. per pound.

The immense growth and astonishing increase of this business in America, where I believe it is also protected, furnishes a strong argument in favor of some such arrangement in a colony where this and other industries are entirely new.

I have, &c.,

RICHARD HUDSON.

P.S.—I think the encouragement of fruit-growing all round, in face of the immense importations from other countries, is well worthy of consideration.

WINE LICENSE.

No. 14.

Mr. ALFRED GOUGH to the Local Committee on Industries.

GENTLEMEN,—

Thames, 13th April, 1880.

I have been manufacturing wine and cider for the last six years. During the last two years I have made efforts to obtain a license in order to bring it into the market; but find that I cannot legally do so but through an auctioneer's sale. I think that the same privilege should be extended to this colony as the Australian Colonies possess; and that every encouragement should be extended to local industry in the wine trade, in order that money may be retained in the colony.

I have, &c.,

ALFRED GOUGH.

No. 15.

Mr. ISRAEL WENDEL to the Royal Commissioners on Local Industries.

GENTLEMEN,—

Auckland, 23rd April, 1880.

I desire to bring to your favourable notice the manufacture of Auckland-made wines. As a purely local industry, this has a strong claim on your consideration; the grapes from which my wine is manufactured being grown in the Auckland Province, and the wine made on my premises in Symonds Street. I am sorry to inform you that my efforts are severely crippled, owing to the many difficulties I experience in placing my wines before the public. The present wholesale license is altogether unfitted for the rapid and effectual sale of my beverages, as I am not allowed to sell any quantity less than two gallons, which precludes the poorer classes from purchasing; and I am therefore obliged to rely on the various hotels to dispose of my goods. As a remedy for this, I would respectfully urge that you will be pleased to recommend that a bottle license at a reasonable figure may be granted for the sale of colonial-made wines only, and thus enable me to more fully develop a local industry now languishing on account of the restrictions placed upon it. In support of my application, I beg to refer you to the copy of the report of the Government Analyst, J. M. Tunny, Esq., and also to the attached certificate of the leading medical men of this city, as to the quality and purity of the wines I manufacture. Trusting that you will entertain my proposal,

I have, &c.,

ISRAEL WENDEL.

COPY of REPORT of J. M. TUNNY, Government Analyst.

SIR,—

Provincial Laboratory, Auckland, 20th October, 1875.

After having made a very careful examination of the wine manufactured by you, I have much pleasure in certifying that it is free from all deleterious matter, and is, in my opinion, a very superior article, especially suited for invalids.

I have, &c.,

J. M. TUNNY,
Provincial Analyst.

I. Wendel, Esq.

COPY of CERTIFICATE from Leading Medical Men in Auckland to the Royal Commissioners on Local Industry.

GENTLEMEN,—

Auckland, 23rd April, 1880.

We have much pleasure in testifying as to the quality and character of the wines manufactured in Auckland by Mr. I. Wendel. Having tested the various samples submitted by him for our inspection, we can confidently affirm that they are pleasant to the palate, of a healthful and invigorating nature, and are also entirely free from any noxious ingredient. We consider that any assistance or concessions that may be granted to Mr. Wendel to enable him to increase the sale of his wines amongst every class of the community will be fully justified by the necessity of a cheap and wholesome beverage for the New Zealand public.

WM. STOCKWELL, L.R.C.S. Edinburgh.

JOHN H. HOOPER, M.R.C.S. England, L.S.A. London.

WALTER LEE, L.M.P.

H. C. WINE, M.R.C.S., L.M., L.S.A.

HUGH KENNEDY, M.D., F.F.P.S.G.

F. W. E. DAWSONS, L.R.C.P. Ed., M.R.C.S. England, L.S.A.

No. 16.

Mr. E. C. MOULDEY to Mr. Commissioner E. C. J. STEVENS.

SIR,—

Christchurch, 31st May, 1880.

Will you please bring this subject before the Board of Commissioners of Local Industries and Productions? I have been a considerable loser during the past few years, caused by the alteration of the Licensing Act. I have been ten years a manufacturer of home-made wine, and established a good business in that line, and have spent more than £1,000 in building work-rooms, cellars, storehouses, and plant for carrying on a large trade. The quantity of wine made by me the last season previous to the altering of the said Act was about 2,000 gallons; since then I have not made any, as my business was entirely put a stop to by the above Act. I have thousands of gallons of wine on hand; it has been dead stock for years, and will be still, unless the Licensing Act will permit of selling by the single bottle. This class of wine is usually bought by the working-people, and not sold by the publicans. In England such wine is sold by confectioners and grocers, and is called British wine or fruit-wine, and is retailed at 1s. per bottle, and no restriction is placed on the sale of it. The same liberty was given in New Zealand till the altering of the Licensing Act, which now prohibits the sale of any wine in less quantities than two gallons without a license. This ought not to apply to home-made wine. I do not think it ever was intended to, but it has: no one but a publican can now sell a bottle of raspberry, ginger, currant, or orange wine. This is an act of injustice to the manufacturer of such wine. It puts a stop to the industry altogether. Another reason why this industry should be encouraged is, that a market is found for a large quantity of surplus fruit, such as is grown in the south of New Zealand.

Trusting you will give this your attention,

I have, &c.,

E. C. MOULDEY.

No. 17.

Mr. JAMES SMITH to Mr. Commissioner E. C. J. Stevens, Wellington.

SIR,—

New Street, Nelson, 20th July, 1880.

I received a copy of the Supplementary Order Paper No. 21, per favour of Mr. Acton B. Adams, from which I observe that you are the mover of the clause in the new Licensing Bill with reference to New Zealand wines. In order to render you assistance in that matter I enclose full details of my manufacture since 1872, together with copy of awards and prizes to me; and also there have been four other prizes awarded at the Sydney Exhibition, 1880—namely, one first, one second, and two third prizes—in all thirteen first-class prizes, including four medals. These awards will show the progress and character of the wines that I manufacture. Were they not worthy of these awards I feel certain they would never have been bestowed; and I am also sure that no industry of that kind in New Zealand has made such rapid progress, irrespective of any bonuses or subsidies, as our own colonial-made wines; and had they not been locked up so by the Government it would have been ten times more; and I shall show you my reasons, as follow:—

Firstly, the Government actually compelled the wine-manufacturer to pay two licenses in each year for the manufacture of his own crops.

Secondly, although paying two licenses, they deprived him from the sale of his wine by preventing him from selling less than two gallons, and keeping him under the same restriction as an importer, with the same penalty in respect to selling less than two gallons, which penalty is £50.

If this is the protection which is given to local industries, the sooner it is abolished the better, or else give them notice to cease manufacturing. Many scores of the sick have sent to my store for a single bottle or even two of wine, and I had to refuse them, well knowing that I could not sell less than two gallons (twelve bottles); and the answer I received from them was simply that they could not afford to purchase two gallons; and I had to make them a present under such circumstances. And I may add that no longer since than last Friday (16th instant) I gave three bottles of wine to a sick lady who could not afford to pay for more; I myself being of hope that the law would be altered, enabling me to charge, before the end of the present session. There has never been a better industry started in the colony were it properly looked after. It creates a good market for very large quantities of fruit; it employs labour in three or four ways; it brings revenue to the Customs for sugar; it shows a consumption of bottles that would otherwise be destroyed; and also renders employment to the cooper and carter, shipping and wharfage. Now, Sir, I think that such an industry should have more freedom and encouragement granted. I observe from the reports of the House printed in the newspapers that an honorable gentleman spoke in hard terms, endeavouring to discourage New Zealand wines. Very likely he may have been right to a certain extent. No doubt there has been a great deal of rubbish made in the way of wines in New Zealand. There are wines made in this city that I believe would give any one the colic; but I am proud to say that, owing to their inferior quality, they have worked themselves out of the market. I myself was the last one among thirteen so-called manufacturers who came into the market, and am the only one among the lot who has maintained a position. I am of opinion that the said honorable gentleman ought to have thought twice before he tried to blacken the whole of the manufacture of New Zealand through him getting the "colic" from one manufacture. Should that honorable gentleman favour me with an order, I am sure that I can supply him with an article that would not give him the "colic," unless he is subject to that complaint. During the last eight years I have manufactured 890 quarter-casks of wine, and should be able to make that quantity annually if encouragement were held out.

Trusting that I am not taking up too much of your valuable time,

I have, &c.,

JAMES SMITH.

INTERNATIONAL EXHIBITION, PHILADELPHIA, 1876, REPORT.

THE United States Centennial Commission has examined the report of the Judges, and accepted the following reasons, and decreed an award in conformity therewith:—

Philadelphia, 4th January, 1877.

Report on Awards.

Product: Fruit-wines from gooseberries, apples, plums, cherries, &c.

Name and address of exhibitor: James Smith, Nelson, New Zealand.

The undersigned, having examined the product herein described, respectfully recommend the same to the United States Centennial Commission for award, for the following reasons—namely: Wines from several fruits and berries, well blended and composed, very tasteful and palatable, and kept in excellent condition.

Signature of Judge:

GUIDO MARX.

Approval of Group Judges:

JOHN BRADFORD,	W. S. GUENE,
W. C. KERR,	JUAN MORPHY,
R. T. BROWN,	DE NICOLAU MORENA,
E. H. BAUMHAUER,	H. G. JOLY.

A true copy of the record:

FRANCIS A. WALKER,

Chief of the Bureau of Awards.

Given by authority of the United States Centennial Commission: J. H. Campbell, Secretary; A. T. Goshorn, Director-General; J. R. Hawley, President.

Medals and certificates awarded to James Smith, New Street, Nelson, New Zealand, since 1872, for excellency of Nelson-made wines and cordials.—No. 1, First Provincial Prize, awarded by Richmond Agricultural Association, April, 1872; No. 2, certificate of honorable mention, awarded by Thames Industrial Exhibition, 1872; No. 3, Interprovincial Exhibition, Christchurch, 1872, medal and first-class certificate; No. 4, Nelson Exhibition, 1873, two medals, with first-class certificate and special prize; No. 5, First Provincial Prize, awarded by Richmond Agricultural Association, 1875; No. 6, ditto, 1876; No. 7, ditto, 1877 (for dark wine); No. 8, ditto, 1878 (for champagne); No. 9, Centennial Commission Medal, Grand National Certificate, together with certificate of report—United States Centennial Commission, 1876.

No. 18.

ACKNOWLEDGMENT by Mr. THEOPHILUS DANIEL, of Riverton, Southland, of a Circular received by him from the Royal Commission on Local Industries on 23rd April, 1880, with Suggestions offered by him.

1. As splendid barley can be grown in the Southland District, he thinks it a pity that distillation should have been stopped. He is of opinion that something should be done to create a local market for barley.

2. Beet-root Sugar.—A bonus should be offered for the manufacture of sugar from beet-root, there being a number of small farmers in the district who could profitably cultivate the beet.

3. Linseed.—Every encouragement should be given to the growth of linseed, and the preparation of oil-cake for fattening stock.

MAIZE, WATTLE-BARK, TOBACCO.

No. 19.

Mr. A. HILLS to Mr. Commissioner Tinne.

SIR,—

Island Farm, Manurewa, 24th April, 1880.

As member of the Local Industries Commission, I would call your attention to several branches that I think might with advantage be fostered—1st, the growth of maize as a grain-crop; 2nd, production of wattle-bark; 3rd, growth and subsequent manufacture of tobacco.

Maize as Grain.—I have carried out experiments with this grain for six consecutive seasons, and have each year ripened it satisfactorily, finding that with the same preparation of land as for potatoes a good result can be obtained; at the same time, note that a suitable shed must be erected to receive the cobs. I have forwarded you a few cobs of this season's growth to Mr. Jakins, Customhouse Street. The six dark-grained cobs have received the same treatment as my potato-crop; the two light-grained are from the outside of a crop grown merely for green feed. Were I certain that the price would not descend below 3s. 6d. or 4s. per bushel of 60 lb., I would embark largely in its growth, erecting suitable sheds, &c.; indeed, I had intended to do so for this past season, but the excessively low figure it was being offered at deterred me. Here allow me to make a few remarks, which may also be taken as applying to all grains, onions, fruit, &c.; and these remarks embody conversations I have had with various settlers who, under different conditions, would become producers of the articles. They are—(1) that it is not a fair and honest competition that they would fear, but that at uncertain times—possibly with intervals of years—some country will have a great excess of a certain growth, and that our markets will be flooded with that excess, which will be consigned to be sold for what it will fetch; (2) that this uncertainty of market, which is entirely independent of whether we have a good, bad, or indifferent yield of the article, deters many from becoming producers who, under a steadier demand and supply, would be so; (3) that, so far from these conditions being beneficial to the consumer, they are the reverse, the average price taken over a term of years being higher than it probably would be if a steady local supply were forthcoming. You may say, "If the producer takes the high rates with the low, if the average is higher he will gain." Not so; the merchant is the only gainer. How often will you see in the Auckland papers, "The lately-arrived cargo of maize (or any other produce) being out of first hands, prices have advanced 6d. per bushel," or something equivalent! But this is not the only view of the matter: most settlers have not deep purses, and cannot afford to lose a few pounds per

acre one year, because some other country has flooded the market, upon the chance that next year they will make a large profit if no such flooding takes place. (4.) That the remedy lies in imposing a protective tax that will not allow such excessive fluctuations, thereby giving producers a reasonable chance of making a profit, affording labour which would not be otherwise employed, keeping the money in the country, &c.

To return to maize, such a tax as would insure its price not descending below 3s. 6d. or 4s. per bushel would cause its extended growth, especially when it is seen to be feasible and remunerative.

Production of Wattle-bark.—I have made this a subject of inquiry in Australia, but find that the enclosed article embraces all I have learnt. As a means of promoting its growth, I would suggest a scheme similar to the Forest Trees Act: £4 scrip per acre is given under the Act; the time for earning this is something over two years. You will note that it is five to ten years before the wattle can be stripped—*i.e.*, five to ten years without return. I think if £8 scrip were offered, payable by instalments, it would induce its culture—£2 to be paid as soon as the seedlings are up, £4 two years after (under the provisions of the Forest Trees Act), and £2 when the trees are fit to be stripped. In this way only £4 per acre would strictly appertain to the wattle, and half of this would depend upon a successful issue. Clause 8 of the Forest Trees Act should be expunged, for it is one of the causes of its non-success, would-be planters thinking that if the conditions are fulfilled they should be entitled to the grant, and not have to wait while the Governor's approval is obtained, &c.

Growth of Tobacco.—I grew three-quarters of an acre of this leaf a few years since. The weight obtained was over 7 cwt. The quality was good, but, the local manufactory at Papakura having been abandoned, it was only used for sheep-dipping.

I further append extracts taken from the "State of Iowa Census for 1875:"—"Sorghum Syrup.—This is a product of all parts of the State, and in quantity more than sufficient for all domestic uses. Recent experiments made in different parts by the direction of the Minister at Washington have attracted increased attention to this crop. If the expectation of the Agricultural Department shall be realized by further experiment, the sorghum-fields of Iowa will be enabled to compete with the cane-fields of Louisiana in the production of sugar. Number of gallons of sorghum syrup made in 1874, 1,489,421."

If the foregoing remarks are what you want, make what use of them you like; if not, put them in the fire: but I would be glad if you will keep the article on the wattle, as, to catch the post, I have no time to copy it.

I have, &c.,

A. HILLS.

No. 20.

The Chairman, HAWKE'S BAY COUNTY COUNCIL, to the Chairman of the Local Industries Commission.

SIR,—

Napier, 30th April, 1880.

I have the honor to acknowledge the receipt of your circular of the 17th instant, regarding local industries, &c., in the Hawke's Bay District, and requesting that you might be furnished with any suggestions that may occur in reference to promoting existing industries. I regret to state that local industries and manufactures have not as yet acquired any prominence in Hawke's Bay. They are few in number, and are as follows: Soap, biscuit and sweets, and cordial manufactures, fellmongery, boiling-down, sash and door factories, carriage factory, breweries, tanneries, rope and twine making, foundry, brick, basketmakers, &c. With regard to the establishment of new industries and manufactures in this district, there can be no doubt that the exceeding richness of the alluvial soil and mildness of the climate offer extraordinary advantages for the growth of sugar-beet, sorghum, hops, tobacco, hemp, mulberry trees for sericulture, fruit for preserving, and, on the slopes of limestone formations, olives for oil. Woollen manufacture should ere long be an established industry here, as the great grazing capabilities of this province produces an immense quantity of wool of the best quality and condition, both long wool and merino; and, as a plentiful supply of artesian water can be obtained anywhere on the plains, through which the railway runs, the facilities for a manufactory cannot be surpassed anywhere, capital alone being required to establish this industry. As regards the manufacture of sugar from beet-root or sorghum, the remark about capital equally applies. The alluvial plains will produce from 40 to 50 tons of beet-root to the acre of the best quality, and the facilities for establishing a sugar manufactory are the same as mentioned for wool. The question as to whether some concession in duty on the production of sugar, instead of a bonus, as now offered by the General Government, would not be more conducive to its manufacture, is one which should engage the attention of those interested in establishing one of the most valuable industries for this or any other country.

I have, &c.,

F. SUTTON,

Chairman, County Council, Hawke's Bay.

BEE-KEEPING.

No. 21.

Mr. C. T. WREN to Mr. Commissioner T. S. F. Tinne.

SIR,—

Mount Hobson, Remuera, Auckland, 21st April, 1880.

Observing in the papers that the Commission for facilitating the introduction of local industries, of which you are a member, are desirous that the people should display their interest and make suggestions on subjects of this nature, but not knowing the full scope or functions of the Commission, I with some diffidence venture to ask whether the bee-keeping industry, which in other countries is of very large importance, could be fostered and assisted. I have taken much interest in the apiary for some twenty-five years, and am convinced there is much to be made of it here, and, ultimately, much money would be kept in and brought into the country by encouraging the production

of honey and beeswax. In passing, I would venture to suggest its encouragement by temporary protective measures, and, until the industry was established, admitting free the necessary hives, fittings, &c. I have just imported from America a number of hives of a simplified, improved, and workable pattern, with the necessary extractors, &c., for carrying on the industry, and was somewhat surprised to find duty charged on them of 15s. 6d. *ad valorem*, which I have paid under protest. This, I would submit, should not be charged until the industry had become established, and it would pay to adapt the necessary machinery for the production of the hives, fittings, &c., which would enable New Zealand to compete in the production of honey and beeswax. The most important point to which I wish to refer, however, is the introduction of the Italian (Ligurian) bee, which has great advantages over the black bee we already have. Their introduction has been attempted by the Acclimatization Society and others without success, probably from the want of systematic and proper proceeding, combined with want of knowledge on the subject. These bees can be obtained in America—probably in San Francisco; and the question I would ask is as to whether the Commission would be in a position to adopt or recommend the expedient of sending such as myself or any other person to that country to bring them here. It is an introduction of such a nature that a private individual could hardly undertake it unaided with success in a business point of view; as the circumstance of the introduction having the effect of Italianizing probably the greater part of the bees in the colony in time, irrespective of the efforts of the original introducer, and in that way would probably prevent such individual from being recouped the outlay, an outlay in which all would participate. An expenditure of, say, some £500, properly managed, would unfailingly, in my opinion, introduce these very desirable insects. I shall be happy to furnish any information required on the subject. I must ask you to excuse the haste with which I have had to introduce this subject to your notice.

I have, &c.,
C. T. WREN.

No. 22.

Evidence of CHARLES THOMAS WREN, taken by Messrs. Commissioners Tinne and Burns at the Minister's Rooms, Customhouse Buildings, Auckland, on 30th April, 1880.

My name is *Charles Thomas Wren*, nurseryman and seedsman, at Remuera and Queen Street, Auckland. I have been over twenty years in Auckland. Referring to my letter *re* bee-culture, I have been engaged in bee-culture for over thirteen years; and this culture can be carried on to very great advantage in this district, and will pay well as a business. It would be of immense advantage to introduce the Ligurian bee, as it is a hardier insect, more prolific, and produces much more honey than the ordinary bee, and is much more manageable. These insects would extract honey from red clover and many other flowers which the other bees are unable to reach; they would also fertilize the red clover, thereby giving much more security of obtaining seed. I am so convinced that these bees can be successfully introduced into this country that I would be quite prepared to do the work upon being paid my expenses, and a fair amount for my trouble if I succeeded in bringing these bees to the country: that is, to have my expenses paid in any case, but to forego any further remuneration should I not succeed. Referring to the statement in my letter that "hives and fittings ought to be admitted duty-free for a time," I now find that these articles can be manufactured in Auckland, since it has been shown that the industry was likely to progress and become of importance. I also find that they can be manufactured at as cheap a rate as they can be landed here. A stimulant to this industry would be given by the introduction of the Ligurian bee. I think it would tend to the advancement of bee-culture if a duty was imposed upon beeswax and honey, merely as a temporary expedient. I will endeavour to furnish the Commission with further documentary evidence on this subject in a few days.

C. T. WREN.

Any person going to San Francisco for these insects would require to start on his journey not later than the month of September in order to secure the queen bees at the proper season; but the month of August would be better.

No. 23.

Mr. C. T. WREN to the Commissioners on Native Industries.

GENTLEMEN,—

Mount Hobson, Remuera, Auckland, 1st May, 1880.

As affording some idea of the importance of bee-culture in America—and it is believed that we have quite as good country as the average of America for this industry—I would mention that one publication alone (there are several) has 4,373 subscribers, 200 advertisers, and 680 contributors; that, during the year 1879, one establishment alone (there are, perhaps, twenty of them) for the production of hives, fittings, and bee-material, sold 3,632 hives, 133,349 brood-frames for sections, 45,314 brood-frames, 408,978 sections, and 10,284 lb. of comb-foundation, besides large quantities of other fittings, Italian bees, beeswax, &c. I make extract of a report from an apiary in New York State for 1879, as follows: "Taking it altogether, the season has been an unfavourable one for surplus honey; however, we have obtained in box-honey 2,909 lb., and 572 lb. extracted honey—making 3,481 lb. in all, or 58 lb. per stock on 60 stocks or hives. This is the lightest yield we have had during seven years, with one exception—namely, 1876, when the average yield was 50 lb. per hive. With the above yield the apiarist went into winter quarters with 100 colonies, thus showing an increase of 40 colonies. The yield on the average of each colony is as follows: In 1873, 80 lb.; in 1874, a fraction of a pound less than 100 lb.; in 1875, a little over 106 lb.; in 1876, 50 lb.; in 1877, a little less than 167 lb.; in 1878, 71 lb.; in 1879, 58 lb.: making an average yield for the past seven years of 90 lb. per hive. This honey sold at an average of 10d. per pound, which would represent, on apiaries of 100 colonies each, the sum of £375 for honey alone."

One practical man can do all the work required to be done with 100 stocks or colonies of bees. There is certainly room here in New Zealand for 500 such apiaries. But the results are very largely indebted to the Italian (Ligurian) bee, without which the successful proportions there shown could

not be obtained. The results as shown are by no means the most favourable ones obtainable; but, were they not so favourable by many degrees, they would tend to show apiculture to be an important industry, well worthy of every assistance in any shape that could be given for its establishment.

I have, &c.,

C. T. WREN.

No. 24.

Mr. C. T. WREN to the Commissioners on Native Industries.

GENTLEMEN,—

Remuera, Auckland, 7th May, 1880.

It may probably be early, and would be premature, to detail arrangements *re* importing the Italian bees, but it occurred to me that the matter would probably be facilitated by my making suggestions as follows: Supposing the Government should apportion £500 for this purpose, I would suggest that, say, £350 of this sum should be available for the purchase of the bees and travelling and incidental expenses. Should I not be successful, I should require no remuneration for my time (some three months) and trouble; but, should I succeed, I suggest that the remaining £150 should be awarded me for my services. On arrival of the bees in the colony, I would suggest that half of them should be at once distributed, to the order of the Government, to bee-keepers in different parts of the colony, the remaining half to be placed in my own apiary to breed from; and, as the queens can be bred, that I should supply, also to the order of Government, to bee-keepers in all parts of the colony queens packed and forwarded, to the extent of 100, at 7s. 6d. each. Should the Government grant a further sum of £100 or £200, such extra money to be used solely in the purchase of an extra quantity of bees, giving me permission to use not exceeding one-fourth of such sum in assistance on the voyage if I should consider that it offered additional chances of success. Should the Government require security (although I am now pretty well known), I would give security to the extent of £500 or £1,000.

I have, &c.,

C. T. WREN.

No. 25.

EXTRACTS ON BEE-CULTURE, furnished to the Commissioners on Native Industries by C. T. WREN, Remuera, Auckland.

At present the Italians are by far the most profitable bees we have, and even the hybrid have shown themselves so far ahead of the common bee that we may safely consider all discussions on the matter at an end. "The pure Italian, where they have not been enfeebled by choosing light-coloured bees to breed from, are ahead of any admixture." Among my eighteen colonies was one Italian. To find out the difference between blacks and Italians, I put in section-boxes for Italians and also for two black colonies. I noticed no difference between them when I commenced the trial. When the honey season had passed and the result was inspected, I had 50 lb. from the Italian hive and 30 lb. from each black hive; some of the rest had 8 or 10 lb. surplus honey, and some had gathered nothing. From the Italian colony I had, besides the 50 lb. of honey, two swarms after the sections had been removed. In ordinary seasons, red clover is as profitable a crop for the farmer as wheat, and, with proper management, if we have Italians, or even hybrids, there is no better honey-plant in any part of the world. It may be remarked here that, whereas the red-clover fields are not of the slightest use to the common bee, their proboscis being unable to reach the nectar in the flowers, the Italians find in them abundant and rich pasturage. A correspondent writes, "Give me Italian bees rather than blacks. Last season was my first year, but I find that, side by side, Italians will work earlier and later, and make more honey and of a nicer quality, especially in the fall: while my black bees were bringing in dark honey, the Italians were making a good quality, but a shade darker than white-clover honey."

It is my impression the Italians will eventually take the place of common bees, even if we let them alone. I judge so from seeing so many beautifully-marked Italians among the wild bees in the woods; and we frequently find as nicely-marked Italians in bee-trees as we can get from any apiary. The fact that the Italians will thrive where the blacks will starve will without doubt enable them in time to almost if not entirely supplant the natives, even if both races should be let alone.

"My Italian queen, which I bought of you on 15th June, has now enough provision for winter and some to spare, and the hive is full of golden bees; while the black swarm hived the same day that I received the Italian queen has not half as much honey or bees either. With the same chances the Italians will more than double the blacks. I have ten stands of bees, nine black and one Italian. The Italian queen I bought of D. S. Given late in the summer. Not any of the blacks have been seen out of late, but the Italians are out early and late to work for dear life. I think more of that one stand than of all the rest; and then they are so tame and active that it is a pleasure to handle them. I want nothing but Italians after this year. Bees, all through this part of the country, have not made honey enough (on average) to keep them, except the Italians."

The comparative advantages of the black or common bees and the Italians is a matter that no longer admits of discussion, and I must consider the very few individuals who write in favour of the former as belonging to the class of unfortunates who seem to delight in being contrary. If tons of honey are to be considered as proof, the matter has long ago been amicably settled in favour of Italians.

The bee-moth need hardly be mentioned now, unless it is to advise you to drive them out with Italians; for whenever they come into a neighbourhood the moths get out without any further trouble or bother. This one feature alone is enough to justify introducing Italian queens in place of the blacks.

The foregoing are a few items showing the great superiority of the Italian bees; but their advantages are so generally accepted wherever they are introduced that but little writing is now necessary. Bee-culture on any profitable scale is not and cannot be carried out without them in these days of competition: with them the industry has assumed very large proportions.

C. T. WREN.

No. 26.

Evidence of Mr. ISAAC HOPKINS before Mr. Commissioner Burns.

Grahamstown, 13th May, 1880.

MY name is *Isaac Hopkins*. I have been about seventeen years in New Zealand. I have been an apiarist for the last six years. If the Ligurian bee could be introduced into the country we could successfully compete with the honey imported from America. It would be very advisable to send some one to San Francisco to bring these bees into the country. This should be done by the Government, as it would be unfair to any private individual to expect him to do this on his own account; particularly as the public will largely benefit by this bee being introduced, both for the propagation of the bee itself and the inoculation of the clover.

ISAAC HOPKINS.

No. 27.

Evidence of Mr. JOHN LAMB before the Commissioners on Local Industries.

Auckland, 10th May, 1880.

MY name is *John Lamb*. I am before the Commission as chairman of the Agricultural and Pastoral Association of Auckland. Regarding our remarks about the high price of labour, we consider the Government are paying too high a rate of wages to those men who call themselves "the unemployed," thereby keeping up the high price paid for ordinary farm-labour, and competing against the ordinary employers of labour and interfering with the ordinary course of business. We consider that 2s. per day for single men and 3s. per day for married men is quite sufficient to pay as wages. These men at present refuse to take the ordinary market rate of wages so long as Government pay 6s. per day, and distinctly inform us that they would rather work for the Government than for private individuals, as they are not required to perform so much work for their money. Therefore, if Government would alter the system of employing these men, the industries mentioned in our paper attached would be started in the country, as labour would then be procured at payable rates, as the industries mentioned are most suitable for the country. Regarding a duty being placed upon imported fruit, we would recommend that no duty should be placed upon sheet-tin and solder. We would recommend that the unoccupied lands north of Auckland suitable for fruit-growing should be granted to settlers, free to those who would plant them in a satisfactory manner with fruit-trees. We would strongly recommend that every facility should be given to the manufacture of iron from the native ores, as large quantities of iron are required in both agricultural and pastoral pursuits.

JOHN LAMB,
Chairman.

That this Society recommends the Local Industries Commission that a bonus (say, of £2,000) be offered for the first 500 tons of beet-sugar made from beet grown in this province.

This Association also recommend to the Commissioners' consideration the high price of agricultural labour, prohibiting the cultivation of many articles of great value, such as sugar-beet, linseed for oil and cake, drape, hops, tobacco, castor-oil beans, and olives: all of the above articles being adapted to this climate, and could be grown successfully if labour were cheaper.

That, for the encouragement of fruit-growing for preserving and tinning for export and home consumption, there are thousands of acres north of Auckland considered to be some of the finest fruit-producing country in the world, and we would recommend that a protective duty be put upon articles of this description.

We would also urge upon the notice of the Commission the introduction of the Ligurian bee, of which we believe they have already some evidence and information.

JOHN LAMB,
Chairman, Auckland Agricultural and Pastoral Association.

SILK INDUSTRY.

No. 28.

Mr. RICHARD DIGNAN to Mr. Commissioner A. J. Burns.

Auckland, 15th May, 1880.

SIR,— I have the honor to inform you that I have received a letter from a gentleman in Scotland, who has an idea that New Zealand is a suitable place for carrying on the silk industry. The writer states that competent authorities are of opinion that, unless some effectual remedy is discovered soon, the silkworms of Europe and part of Asia run a risk of early extinction. It will be to new countries, therefore, like Australia and New Zealand that the silk-brokers, merchants, and spinners of the future will have to look for supplies. The letter also contains a query—namely, "Will the Government give any encouragement to persons willing to embark in this industry; and, if so, in what direction would such encouragement tend?" From the above you will understand that this colony is attracting the attention of silk-growers; and one reason at least is advanced why the question should receive some consideration. In and around the City of Auckland there are many mulberry trees, and if it were thought advisable from these trees could be made the nucleus of a grove sufficient to try experiments in silk-raising. The white mulberry grows readily from cuttings, and thrives well in this district. I have raised several hundred plants myself during the last few years. In 1870 the Government published valuable detailed information collected by a Royal Commission specially appointed to inquire into this subject. Thus it will only be necessary to make a practical use of the important data already on hand. To bring the matter formally before the Commission, I would ask, on behalf of this part of the colony, which seems so well suited to the silk industry, if it is the intention of the Commission now sitting to recommend that encouragement be given to persons willing to take up this important industry? Would the Government be willing to revive the bonuses offered on similar conditions to those in force a few years back?

I have, &c.,

RICHARD DIGNAN.

BEET-SUGAR.

No. 29.

Mr. ROBERT ALLAN to the Chairman of Local Industries Commission.

SIR,—

Christchurch, 24th May, 1880.

Some time ago the Government offered a bonus of £5,000 in each Island for the production of a certain quantity of sugar from the beet. This was freely advertised in the colony, and was not taken advantage of. I am not aware of the steps that were taken to make the question known in other countries, but it appears to me that this industry is one specially developed in France and Germany, and where they have capital and knowledge available for the industry. I think it might be worth while to bring the subject prominently forward in those countries, and I am led to this conclusion by reading an extract from an American paper where it is stated that a party of Germans had offered to go to Baltimore and start the manufacture of sugar from the beet, and the only condition imposed was "that the farmers in the neighbourhood should grow not less than 2,000 acres of beet," which they undertook to purchase at the rate of £1 per ton. If this industry can live in a country where they produce sugar from the cane, why not in New Zealand, where no such competition exists? I have read lately in the Australian papers that sorghum is spoken very highly of, and as being more productive than the beet.

I have, &c.,

ROBERT ALLAN,

Chairman, Local Industry Association, Christchurch.

VINES, OLIVE AND MULBERRY TREES.

No. 30.

Mr. G. B. FEDERLI to the Chairman of Local Industries Commission.

Hokitika, May, 1880.

CONSIDERING that it is the duty of every man to contribute to the welfare and prosperity of the country in which he lives, I hope that I shall not be considered too presumptuous in humbly representing to you some of my views on three branches of industry which, if I am not mistaken, have neither of them had a proper trial. The cultivations to which I allude are—vines, olive-trees, and mulberry-trees. Italy, my former country, which I left five years ago for this colony, obtains its revenue chiefly from these three productions; and why should not New Zealand, with its beautiful and very similar climate, situated under the same degrees of latitude, and presenting almost the same natural features, have those resources likewise? I have no doubt that the North Island would answer the purpose, if a start on a sound basis could be made. Unfortunately, I have had no occasion of visiting the North Island, otherwise I should be able to state positively the localities most suitable, especially for the cultivation of the olive and vine; but, nevertheless, it is some time since I concluded that such cultivations would produce a successful result, and in that direction I have taken occasion to procure information from an Italian settled in that Island, and I was much pleased that his opinion confirmed my own convictions. I consider it superfluous to state here the importance of the cultivation of the olive-tree, this having been done already by Mr. John Glynn, of Leghorn, in his report of August, 1875, presented to both Houses of the General Assembly by command of the Governor in 1877. The only thing which I find it my duty to add to what Mr. Glynn has expressed—and it is of vital importance—is the selection of the olive-trees, and their choice possibly from localities where the soil is of the same nature as that in which the olive-tree is to be transplanted. Everything which Mr. Glynn has expressed in his report is perfectly accurate, with the exception of his statement that "it is not advisable to cultivate the olive and vine together." In that respect I am of a contrary opinion. The cultivation of the vine requires the identical kind of soil that is necessary for the olive, and the same treatment in planting, consequently when they are cultivated together the labour is at least lessened one-third, and without the slightest disadvantage to either. One more important item is that, if it should occur that the olive-trees fail for one year—as is the case sometimes in the countries where it is cultivated—the vines assist in lessening the loss, it being rarely the case that both fail. In this way the plot of land will never be unproductive: in fact, the practice of cultivating olives and vines together is now much extended in Italy. On this principle an English gentleman (Mr. Lloyd) in Tuscany successfully converted a scrubby conical hill into a grove of olives and vineyard. I saw this property in a most prosperous condition a fortnight before leaving for this country. Now, I pass to the third branch of industry—namely, mulberry trees, and consequent cultivation of silkworms. The mulberry is far more easily cultivated than the olive, and almost every kind of soil is suitable for its growth. I have every reason to believe that the cultivation of silkworms can be introduced not only in the North but also in the Middle Island. This tree, when once properly planted, requires no more attention. Regarding the cultivation of silkworms, there is no doubt that it requires some skill, but that can be easily acquired. In Italy and France it is well known that, where the climate is suitable, this industry is extended to a very large scale. Hundreds of thousands of families who possess not a palm of soil obtain support from this cultivation. Every landowner, as a rule, grows more mulberry trees than he requires for his own production, and the surplus is given to those people who are willing to cultivate a certain quantity of silkworms; the owner receives half the value of the produce contained in the cocoons in exchange for the leaves. This industry is not only carried on by the lower, but also by the better, classes. This cultivation requires some care and attention, and is well adapted for women, and generally ladies of good standing also take great interest in this important and fascinating industry. I have no doubt that, if a start were made, in a short time the result would be satisfactory. It is not my idea to suggest to any one to start at once on a large scale, and with the idea of a speculation. For that it is not yet time, labour also being so dear, and a speculation implying the construction of

appropriate buildings; but a good start can be made on a small scale by the culture in cottages. I am prepared to assert that a woman, without neglect of her domestic duties, can cultivate as many silk-worms as produce 100 lbs. of cocoons in thirty-five days; and, considering the average actual price paid in Europe, she would make 2s. per hour for the time employed in that cultivation, and I consider that a good return. The mulberry-tree has two other advantages—namely, in autumn the fallen leaves make excellent food for fattening sheep during winter, and the timber is considered one of the best for making receptacles for wine, spirits, &c. If once the cocoons are successfully obtained, it is an easy matter to work the raw silk. If a start is made where the experience of others ends, a rapid progress will be made without any waste of time or money; and we shall obtain oil of the purest quality for our domestic wants and our machinery, wines pure and manufactured according to our taste, and with perseverance we shall also succeed in exchanging our raw silks for manufactured ones. With the introduction of these industries the demand for labour will be vastly increased, wealth will remain in the country, and the revenues will be greatly augmented.

Now I come to the conclusion, and in that I would humbly suggest that a nursery be established to enable the owners of land to have the opportunity of introducing these cultivations. The nursery, if properly managed, would in itself amply repay the undertaking. Should you think my suggestions worthy of your consideration, I shall be happy, if requested, to go into details, both by suggestions and co-operation, as to this enterprise, using my experience in the matter as far as my position of Civil servant on the Survey Department will permit me.

I have, &c.,

G. B. FEDERLI.

No. 31.

MEMORANDUM on the CULTIVATION of the ORANGE in New Zealand, by MR. THOMAS KIRK, F.L.S., Wellington, 8th June, 1880.

PROBABLY no cultivated fruit surpasses the orange as a remunerative crop. Certain orange-grounds in New South Wales are known to afford an annual return of over £500 per acre. It is stated that one tree has yielded 300 dozen per annum for over twenty years. No better proof of its remunerative character can be required than the fact of its culture extending every year. In this colony, good oranges and lemons have been produced for many years in the Auckland District, although no attention has been paid to the selection of sorts or to special culture. The best soil for the orange is that produced by the decomposition of basaltic rocks, although a friable, rather sandy loam is almost as good. The ground should be carefully prepared, and, if necessary, thoroughly drained. Shelter from high winds is absolutely requisite. This could be afforded by planting evergreen trees round the enclosure. There are several kinds, native and introduced, which could be procured at low rates and in any quantity. An essential point is the selection of suitable kinds; these should be worked on stocks of the Seville orange—one year old, if they can be procured. They should be kept in beds for one or two years before planting out, the surface of the soil being covered with moss in dry weather. After permanent planting, all the cultivation required is to keep the surface free from weeds, to mulch with loose stable manure or some substitute, which should be forked in after the fruit is gathered, and to remove superfluous shoots, so as to admit a free circulation of air to the centre of the tree. Should the black blight make its appearance the plant must be dressed with a mixture of soft soap and kerosene, or with some other preparation used for that purpose. There are numerous localities north of Napier in which not only the orange, but the lemon, lime, citron, and shaddock, could be advantageously cultivated. An orange orchard would come into bearing eight or ten years after planting; the trees should not be allowed to bear when too young. After the tenth year each tree is supposed to produce from 1,000 to 1,600 oranges. About one hundred trees may be planted to the acre, but the number would vary according to the mode of growth adopted, and in a lesser degree to the kind selected. Estimating the annual value of the produce of each tree at the low rate of 10s. would give a return of £50 per acre. But, as we have seen, that 1,000 oranges per tree would be a low return, the annual value per acre may be safely estimated at £100.

THOS. KIRK.

ECONOMIC PLANTS.

No. 32.

Evidence of MR. THOMAS KIRK before the Commissioners on Local Industries at Wellington, 8th June, 1880.

Mr. Kirk, after reading a paper on the cultivation of the orange, says: I suggest that a properly-qualified person shall be sent to Sydney and the other Australian Colonies for the purpose of taking notes regarding the proper treatment of the orange-tree. The cost of such a matter would not be great, and would very soon recoup the expenditure.

Grapes.

There is an almost unlimited market in this colony for grapes preserved in sawdust. The grapes are gathered before they are fully ripe; after being hung in the shade for a few days, to free them from any extraneous moisture, they are packed in boxes or casks, as the case may be, and in this condition will keep for months; avoid sawdust containing a large proportion of resin. Experiments should be made with sawdust of various kinds before going into this as a business.

Mimosa Bark.

This is imported to a very great extent into this country, and it is increasing year by year, though the price is advancing. It could be grown here so as to afford remunerative outlay for labour; the plant will grow upon any ordinary soil; care would have to be taken to select the best kinds. The cost of forming a plantation is small, as the seed can be sown broadcast, at the rate of 12 to 16 ounces,

per acre ; after the soil has been reduced to a fine tilth, all that would be required afterwards is to keep the surface free from weeds, say for three or four years, when the plantations could take care of themselves. The only outlay after that period would be for cutting and peeling. There is practically an unlimited demand for mimosa bark in Europe, which, in my opinion, keeps up the high price. In Victoria, mimosa plantations yield a net annual return of £4 to £5 per acre. I may say that, at my suggestion, Mr. Firth, of Auckland, laid down several acres in mimosa. I would strongly urge that the railway reserves in Canterbury be utilized for this purpose ; the fences being already erected the outlay would be restricted to the cost of preparing the ground, sowing, and keeping free from weeds for three years. The kinds I would recommend are the "*Acacia decurrens*," the "*Acacia pycnantha*," and the "*Acacia saligna*." The last-named is only adapted for the Auckland District. I would recommend that this mimosa-planting be brought under the Forestry Department when created—that is, in regard to management and disposal of the bark and timber. A valuable gum, which has become an article of export from Australia, is obtained from these trees. I am not certain at present to what altitude the cultivation of the mimosa can be carried in the South Island.

Castor-oil Plant.

This is already naturalized in many parts of the North Island, and attains a large size. It is evident from this that it could be grown to advantage for the sake of the oil derivable from the seeds, which, in addition to its medicinal value, is largely employed as a lubricator. It is also used in the manufacture of soap.

The Ground-Nut.

This plant yields from 40 to 50 bushels per acre. In the New York market these commonly sell at from 10s. to 12s. per bushel ; they have a large sale in this colony, and have grown well in Auckland. They are largely imported into England for the sake of the oil, which is used in soap manufacture ; any soil, except extremely tenacious or wet soil, will do for them. The pea-nut is the true fruit of the plant, which is thrust into the ground whilst growing. They might be cultivated in any part of the colony where the potato will grow, but they prefer a warmer climate to a colder one. I should sow the seed in drills. The value of the pea-nuts exported from the African coast now amounts to £1,250,000 per annum. The labour of gathering can be done by children. I cannot state the actual cost of cultivation, but I am convinced that it could be cultivated at a profit, even at our high rates of wages. The pea-nut requires to be planted every year. It belongs to the pea family, and the fruit is a true legume, notwithstanding its strange habit. The seed could be obtained from New York or San Francisco. Care should be taken to see that the nuts are not roasted before leaving America. It is a known fact that hickory nuts are so treated in order to prevent the acclimatization of the tree in other countries.

Canary Seed.

Canary seed is an article that is imported to a considerable extent. The question of ravage by sparrows having been raised, I may say that in an experimental plot of canary seed in the Auckland gardens, the sparrows threatened to take the seed, but they afterwards left the plot and never returned to it when the seed was ripe. We found that they had really come for the small green caterpillars with which the young plants were covered. We got a good crop from the plot. It was all that could be desired. At that date canary seed was much dearer than it is now. We were paying 1s. per pound for Victorian seed. It is a grass—*Phalaris canariensis*—and it grows wild in many parts of New Zealand, but not so luxuriantly as in cultivation. Our crop did not cost us more than 1d. per pound, though it was only on a small scale. The same remarks apply to hemp seed, for which there is a demand, though not so great in extent. Canary seed is manufactured into oil, but it could not be done profitably here. It is chiefly used for feeding birds.

Tea.

There can be no question that the Assam variety of tea can be grown very well in the North Island, but the cost of labour would prevent its being cultivated at a profit.

There are many small things that might be mentioned, such as teazles for cloth finishing ; but perhaps the quantity used would not be sufficient to make it worth while to cultivate them.

Drugs.

Quinine can be grown in open fern-tree gullies to the North of the Auckland isthmus. There were trees in the Auckland Acclimatization Gardens. The plants require great care in raising and in culture until they are about 2 feet high—that would be at about three years old. They should then be planted out in open fern-tree gullies, care being taken to avoid deep gorges ; they will then need no further care, except being kept clear of overgrowth or the drip of other trees. A small return might be expected at the end of the fourth year after planting out, or the seventh year of the tree's age. At first this return would consist only of the pipings—that is, the bark and the very young shoots—and would increase from year to year for many years ; the bark is peeled off the side branches, and it grows again. The success of the Cinchona plantations in the Nilgherri hills has been greater than was anticipated, and a handsome revenue is now being obtained from them under the Indian Forest Department. I do not look upon this cultivation as a new industry, but simply as an addition to the stock of the economic plants of the colony.

Opium.

As a matter of fact, the opium poppy has been grown in Victoria in a very careless manner, receiving no special attention, the result being a profit of £30 per acre. There are several varieties in cultivation. The best for the colony would be *Papaver somnifera* and *Alba glabratum*—the Smyrna poppy, variety *Beta*, might also be introduced. On ordinary soils the plant is of very easy cultivation. The Indian exports alone are valued at £13,500,000. At the Government sales in Bengal in 1873 50,000 chests were sold at £139 per chest, the profit on each chest being estimated at £90. The value of Chinese-grown opium is fully equal to that of Indian. The plant can be sown broadcast and thinned

out, or sown in a seed-bed and pricked out. Three or four days after the petals have fallen, the capsule is scored with a small knife, and the juice that exudes is scraped off and formed into balls. That is the whole process of preparing the product for market.

Comium (Hemlock)—Digitalis (Foxglove).

These are used in considerable quantity; both plants are naturalized in several parts of New Zealand—about Wellington, for instance.

Carraway.

This is used both as a drug and a confection. It might as well be grown here as imported, as there is not the slightest difficulty about its growth; the same culture that suits common parsley will suit the carraway.

Santonine.

This is a valuable worm medicine, the best for children that is known. It comes from the deserts of Tartary; but it will grow very easily in New Zealand. The common southernwood of the gardens is the typical plant, *Artemisia maritima*. The flower-buds are what are used for medicine. They are exceedingly minute, about 120 weighing one grain. Twelve thousand hundredweights are taken into St. Petersburg annually. It is a medicine which soon loses a portion of its effect on keeping, and is therefore all the better for being fresh.

Henbane.

This is a medicine of great importance. An Auckland druggist offered to give 12s. per pound for as much of the dried herb as could be grown. This and the belladonna were introduced into Auckland some years ago, and did very well in the gardens. These are of very easy culture, the henbane especially might be grown by the acre much more easily than a crop of turnips. The leaves, stems, and seeds of the plant are used.

Camphor Laurel and Sassafras Laurel.

The camphor laurel grows well about Auckland, and might be cultivated for manufacture. The process of extracting the camphor as pursued by the Chinese is very rough, and might easily be improved upon. The wood is reduced to chips and boiled, and the camphor is given off in vapour.

Liquorice.

This is already in the colony, and could easily be cultivated for manufacture. It is in cultivation in Nelson. It is principally grown in South France, Spain, and Portugal. The import into England is over 4,500 tons annually. It belongs to the pea family. The cultivation is simple, the root being the portion used. Spanish liquorice is simply the inspissated sap of the root.

Saffron.

This can be grown with the greatest ease. It is a *Crocus*, and the cultivation of it is very simple. It may be grown in any ordinary garden-soil. The part used is the stigma of the flower. It is usually collected by children and women in the countries where it is grown. It is used in staining leather, and various other industrial processes. I believe the manufacture is quite simple.

Perfumes.

Flowers for perfumes could be grown with great advantage in many parts of the colony. The Oamaru District is admirably suited for those varieties which are not affected by frosts, such as lavender.

Garden-seeds.

These can be grown in large quantities for export.

The public service might be furthered by the publication of a short account of the economic plants adapted for cultivation in New Zealand, with notes on their culture and the localities best adapted for them. Baron Mueller published in Victoria a list of plants adapted for culture in that colony, which has been productive of great good. That list would not be adapted for New Zealand; neither does it go so far as it should.

Neglected Forest Products.

I have sent a memorandum to the Minister for Public Works on the use of firewood for fuel in locomotives through forest districts. I may say that, when engaged in examining the forests with a view to organizing the Forests Department, we had occasion to go into the question; and were informed that the locomotives could be altered so as to burn wood instead of coal at a very small cost. As a matter of fact, wood is used for locomotives in India, the United States, and some European countries, where higher rates of speed are attained than are required by us. It appears to me that the substitution of wood for coal on these lines would be attended by three primary advantages—first, a saving in the cost of working expenses; second, the utilization of waste material, affording additional outlets for labour; third, the diminution of the risk of the destruction of the forests by fire. It is obvious that the waste tops and branches left to get dry do more than the standing forest to feed the fire. A moment's thought will suffice to show the saving in cost of using wood instead of coal on such lines as the Manawatu and Taranaki lines. I think I am correct in saying that the saving would be about one-fifth. The great advantage, however, is the additional security to the forests. I consider this a very important matter.

No. 33.

ON THE CULTIVATION OF SAFFRON (*Crocus sativus*), by Mr. THOMAS KIRK, F.L.S.

Written at the request of the Chairman.

SAFFRON may be cultivated in any ordinary soils. The corms should be planted about four inches apart in the rows, and twelve inches between the rows. This will allow them to increase for several years without rendering it necessary to incur the cost and labour of replanting. They should be

kept free from weeds, and the soil should be carefully loosened after flowering-time. The part utilized is the stigma, which must be collected as soon as the flower is fully expanded: this occurs in Europe about the close of September or the commencement of October; in this colony it would doubtless occur from the latter part of February to the commencement of April. It requires about 6,000 flowers to produce a pound of fresh saffron; this loses four-fifths of its weight in drying. The preparation of the drug is extremely simple, and consists merely in drying the stigmas in wire sieves over a gentle fire, a process which does not require more than from fifteen to twenty minutes, when the saffron is ready for the market. Saffron has been cultivated in England for more than five hundred years: in the sixteenth century it formed an article of export, and was held in high repute on the Continent of Europe, where it realized a higher price than saffron from any other country. At the present time it is chiefly cultivated in Spain and France. In 1864 the saffron exported from Spain was valued at £190,000, but in 1866 it was only £47,000. In southern France saffron is chiefly cultivated by peasant-proprietors. In the Department of the Loiret the annual value of the crop is estimated at £60,000.

The declared value of the saffron imported into England in 1870 was £95,690, being at the rate of 43s. 6d. per pound. It is chiefly used for colouring medicines, confectionery, &c., and as a dye.

In this colony the yield for the first year could not be expected to realize a higher rate than £6 per acre; the third year it would be fully four times as much, and would continue to increase until the offsets covered the entire area under cultivation.

No. 34.

Paper by Mr. THOMAS KIRK on LOXA BARK or PERUVIAN BARK (*Cinchona officinalis*, *Cinchona calisaya*, *Cinchona succirubra*).

THIS is imported into Britain to the value of upwards of £290,000 per annum. It is received in three principal forms: 1. Flat bark. This is obtained from the trunk and primary branches, and is usually in large pieces from a quarter to three-quarters of an inch in thickness. 2. Large single or double quills, obtained from the smaller branches. This is usually in quills or tubes three-quarters of an inch to an inch and a half in diameter. 3. Small quills or pipings. This form is obtained from the branchlets, and is usually imported in tubes or quills from one-eighth to three-quarters of an inch in diameter. In many cases it is not thicker than a sheet of common writing-paper, and is rarely more than one-tenth or one-twelfth of an inch in thickness. All the forms become more or less broken in transit, but this does not detract from their efficacy.

The profitable cultivation of cinchona is based on the fact that the bark of shoots of two or three years' growth contains as large a proportion of alkaloids as the oldest trunk bark. In this colony, the area in which it could be profitably cultivated is restricted to the country north of the Waitemata: the most suitable places would be open fern-tree gullies, with a fair depth of good soil. The plants might be finally planted out at about 10 feet apart; the first crop of bark might be taken the fourth or fifth year after planting, according to growth, when the branches might be thinned out and peeled, the bark being dried in the sun as quills. The extent to which branches can be removed must depend upon the rate of growth. In all probability the more suitable method here will be to treat the plants in the same way as basket-willows, cutting back all branches to the stump, say every second or third year: in this case the plants may be set out 5 feet apart or even closer. It has been found that by covering the branches with a layer of moss the proportion of alkaloids is increased; and branches from which the bark has been partially removed make a new growth more speedily when treated in this way. The success of the Neilgherry plantations has been most striking. The first shipment of plants was made from Islay, Peru, in July, 1860. The first crop of bark was placed in the London market in August, 1867. In 1873, nearly a thousand acres had been planted on the Neilgherry Hills (South-west India), and at that time the oldest trees were over 30 feet high, with trunks more than 12 inches in diameter. In this colony, plants of *Cinchona succirubra* were propagated in the gardens of the Auckland Acclimatization Society previous to 1873; but I do not know what has become of them. All the species named at the head of this paper may be easily raised from seed, which can be obtained without difficulty.

No. 35.

A SHORT LIST of MEDICINAL PLANTS which may be profitably cultivated in New Zealand. By Mr. THOMAS KIRK.

THE following list of drug-yielding plants suitable for local cultivation makes no pretensions to completeness. It is merely an enumeration of a few kinds which in most cases can be easily procured, and which do not present any special difficulty to the cultivator. Some of them, as mustard and poppy, might take their place in a course of rotation-cropping, as their produce is required in large quantities, and they are of only annual duration. Others, as mint, may be grown in large quantities, but require permanent culture. Others, again, as aconite and podophyllum, are required in comparatively small quantities, and are therefore adapted for cultivation in cottage-gardens. The production of lactucarium at Zell, in Rhenish Prussia, shows what may be done in this simple way. An asterisk is prefixed to those species which have already been introduced into the colony:—

Medicinal Plants adapted for Cultivation in New Zealand.

Black hellebore, *Helleborus niger*—root.

Coptis root—root—*Coptis tecta* (China, India), *Coptis trifolia* (North America). The first is the more valuable.

* Aconite, *Aconitum napellus* (Europe)—root and leaves.

Nepal aconite, or Indian aconite, *Aconitum ferox* (Northern India).

Podophyllum, *Podophyllum peltatum* (North America).

* Poppy, *Papaver somniferum*, (β) *glabrum*, (γ) *album*.

* Black mustard, *Sinapis nigra* (Europe).

* White mustard, *Sinapis alba* (Europe).

* Linseed, *Linum usitatissimum*.

Buchu, *Barosma crenulata* (Cape of Good Hope).

Tragacanth—*Astragalus ascendens* (Persia), *Astragalus gummifer* (Armenia, &c.), *Astragalus stromatodes* (North Syria, at an altitude of 5,000 feet), *Astragalus kurdicus* (Cappadocia, &c.). The tragacanth exported from Smyrna alone is valued at upwards of £70,000 per annum, and the demand is increasing.

* Liquorice-root, *Glycyrrhiza glabra* (South Europe, Central Asia). This is cultivated in England, and imported to a large amount, both crude and manufactured. The latter alone amounts to upwards of £80,000 per annum.

* Gum kino (Ceylon, India). Eucalyptus gum has been found equal in value to this costly tropical kino, especially that produced by *Eucalyptus rostrata*, *E. citriodora*, and *E. corymbosa*.

Hemlock, *Conium maculatum* (Europe, Asia Minor).

* Caraway, *Carum carui*. Cultivated in England, and imported to the extent of 20,000 cwt.

* Coriander, *Coriandrum sativum*, L. (Europe, &c.).

Cumin, *Cuminum cyminum*, L. (Egypt, China, &c.).

* Peruvian bark, *Cinchona succirubra*, *C. calisaya*, &c.

Chamomile, *Anthemis nobilis* (Europe).

Santonine, *Artemisia maritima*, v. *steckmanniana* (Turkestan).

Arnica, *Arnica montana* (Central Europe).

Lactucarium, *Lactuca virosa*, *L. scariola*, *L. altissima*, and *L. sativa*—garden lettuce. This drug is chiefly manufactured at Zell, in Rhenish Prussia, where about 1,000 lb. per annum are manufactured, the price on the spot averaging 10s. per pound, according to quality. It is manufactured to a small extent in Britain. At Zell the plant is chiefly grown in cottage-gardens. Shortly before flowering the stem is cut off about 12 or 10 inches below its apex, the juice collected and transferred to cups, in which it soon hardens so that it can be turned out in solid cakes, when it is dried by exposure to the air. After the first piece is cut off the stem, a thin transverse slice is cut every day, so as to expose a fresh surface. This is usually continued until September.

* Manna, *Fraxinus ornus* (Southern and Central Europe, Asia Minor). Exported from Sicily alone to the value of £20,000 per annum.

Gentian-root, *Gentiana lutea* (Southern and Central Europe).

Scammony, *Convolvulus scammonia* (Greece, Asia Minor, South Russia, &c.).

* Belladonna, *Atropa belladonna* (Europe).

* Stramonium, *Datura stramonium*. (Naturalized in New Zealand.)

* Henbane, *Hyoscyamus niger*.

* Digitalis, *Digitalis purpurea*. (Naturalized in New Zealand.)

* Lavender, *Lavandula vera*.

* Peppermint, *Mentha piperita*. Extensively cultivated in several parts of Europe and the United States for the sake of its essential oil, one distiller alone sending out over 60,000 lb. per annum. The oil produced at Mitcham, in Surrey, where it has been cultivated for more than a century, commands the highest price in the market, realizing more than twice the value of the finest American kinds. At Mitcham, Wisbeach, and Market Deeping, stills are possessed only by the large growers: these are hired by small growers at so much per charge. The dried herb is preferred to the fresh, as a larger quantity can be placed in the still. The stills contain from 1,000 to 2,000 gallons. In America the percentage of oil by weight ranges from 0·11 to 0·15 per cent.; at Mitcham it equals 0·26 per cent.

* Spearmint, *Mentha viridis*; pennyroyal, *M. pulegium*, are cultivated for the essential oil which they contain and for the dried herb.

Rhubarb, *Rheum officinale*. The root is cultivated in England, and is imported to the value of £63,000 per annum, chiefly from China.

* Camphor, *Laurus camphora* (China, &c.).

Sassafras, *Sassafras officinale* (Canada).

* Castor-oil, *Ricinus communis*. In addition to its medicinal value, the oil is largely used in the manufacture of soap, and for lubricating machinery. The annual value of the castor-oil imported into Britain exceeds £85,000. The plant is naturalized at Great Omaha and other places in the North Island, where it produces seeds abundantly.

Virginian snake-root, *Aristolochia serpentaria* (United States).

* Orris-root, *Iris germanica*, *Iris pallida*, *Iris florentina* (Europe). The first of these is naturalized at the Bay of Islands and other places in the North Island.

Dye-saffron, *Crocus sativus* (Greece, Asia Minor).

Squill, *Urginea maritima* (Southern Europe, Asia Minor, &c.).

White hellebore, *Veratrum album* (Central and Southern Europe, Asiatic Russia, and China).

Meadow-saffron, *Colchicum autumnale* (Europe).

TOBACCO.

No. 36.

Mr. E. W. GORCH to Mr. Commissioner T. F. S. TINNE.

SIR,—

Opotiki, 21st April, 1880.

Having read with deep interest your admirable letter of the 14th instant, published in the *Weekly News* of the 17th, I feel it my duty, both for my own personal interest and in behalf of the cause you so warmly advocate, "the fostering of local industries," to lay before you the particulars of my own case; which, as one of peculiar hardship, and as an instance of the utter extinguishment of a promising local industry, will stand unequalled in the Colony of New Zealand. I refer to the

manufacture of tobacco, at which I have been working in various parts of this province for the last twelve years, and during that time have struggled against the most disheartening reverses, partly from popular prejudice against New-Zealand-grown tobacco, and partly from unsuitability of climate. I, however, finally settled down here in the Bay of Plenty, encouraged by the mild temperature; and have succeeded in raising a very superior crop of tobacco, which I had partly manufactured and arranged for the sale of, when the imposition of the tobacco duty put a stop to my proceedings, as I cannot possibly with my single-handed plant of machinery compete against the large American manufactories. I am consequently, at the very moment when the brightest prospects of success were opening up for me, thrown with my family into the deepest distress and ruin, with liabilities upon my shoulders which I incurred in all good faith upon the promising aspect of my local industry, and which have now involved me in moral as well as pecuniary ruin. I freely invite the fullest inquiries into the particulars of my case. If I might be permitted to make a suggestion, it would be to the effect that the duty upon local production should be 1s. on the pound of manufactured article, leaving the protection of 2s. 6d. against the imported article. The justice of this proposition will be explained by the fact of the great extra time and trouble required in this country for the production of a crop equal in quality to that which grows spontaneously in the States of America, combined with the absurd prejudice which exists, that home-made tobacco cannot be as good as imported, all of which tends to keep down the market value of the article. Trusting that you will kindly give these observations your careful consideration,

I have, &c.,

EDWARD W. GOTCH.

No. 37.

Mr. E. W. GOTCH to the Chairman of the Local Industries Commission.

SIR,—

Opotiki, 4th May, 1880.

In reply to your favour of the 28th ultimo, I beg herewith to submit to you an approximate statement or schedule of losses sustained by me in consequence of the levying of a duty upon New Zealand tobacco. Since the year 1865 I have cultivated 49 acres of tobacco, at an average cost of £20 per acre. In erecting sheds and apparatus for drying and curing the leaf I have expended about £450. The cost of my plant of machinery is £350. During the last ten years I have been working at a loss, which is now consummated by the heavy duty. I have about 2,688 lb. of raw material on hand, and a few pounds of manufactured, which I cannot now sell. I consider my total loss resulting from the suppression of the tobacco trade, which is practically the effect of the recent duty, to be,—

On cultivation of 49 acres, at £20 per acre ...	...	...	£980	0	0
On cost of erecting sheds, &c. ...	...	...	450	0	0
On value of machinery plant ...	...	...	350	0	0
On ten years' labour and loss of time (£250) ...	...	...	2,500	0	0
Total loss ...	...	...	£4,280	0	0

As I am now left in a state of absolute destitution, I earnestly hope that the Commission will, after satisfying themselves of the truth of my statement, see their way to make me some little compensation.

I have, &c.,

E. W. GOTCH.

No. 38.

Evidence of Mr. VOLLBRACHT before the Commissioners on Local Industry, at Wellington, 2nd June, 1880.

I AM one of a party who came from San Francisco about a year ago to manufacture tobacco. I laid particulars before Mr. Ballance, Commissioner of Customs; but, under the Act passed last session, there are no prospects of successfully carrying on the manufacture. The charge on our colonial tobacco is 3s. 6d. I find our tobacco is better than any other colonial tobacco; but still, we are not able, for the first two years, to make as good a quality as that we import from America. In five or six years I have no doubt we shall produce as good a leaf as the American; but at present the bonus of 6d. offered to our industry is insufficient. The colonial tobacco ought not to be taxed at more than 1s. per pound during the first few years. When the cultivation has been improved we shall be able to compete on even terms with the American tobacco. We contemplated establishing the industry on a large scale—sufficient to supply the whole colony; but under the Act we are quite prevented. It was on my recommendation that the Tobacco Act was passed; but I recommended that the duty on colonial tobacco should only be 1s. per pound, whereas under the Act it is 3s. 6d. per pound. It would suit as well if the bonus were raised from 6d. to 2s. 6d. My remarks apply only to the New-Zealand-grown leaf. We do not object to the 3s. 6d. duty on the imported leaf. As a manufacturer, I could give 1s. per pound for the leaf grown in New Zealand. The Chinese labourers in California get 30 to 40 dollars a month. In the Eastern States the white labourer gets 60 to 70 dollars. In the West the hours of labour are eight per diem; in the East they are nine. I believe that on the east coast of New Zealand they could get two crops a year for five or six years in succession. It will not do to have too rich soil. Labour here is 25 per cent. cheaper than through America. The leaf is bought in America from the grower at 1s. per pound. Every man who manufactures tobacco in the colony ought to have a license. In the Maori districts the law is not enforced. There ought to be no exceptions of this kind. We cannot make a profit on the manufacture of the imported leaf at a bonus of only 6d.; if the bonus were 1s., it would leave us a profit.

No. 39.

Mr. VOLLBRACHT to the Commissioners on Local Industry.

GENTLEMEN,—

Wellington, 5th June, 1880.

I beg to state, for the information of the Royal Commission on Local Industries, that I have examined some tobacco grown at Opotiki, and have compared it with samples of leaf tobacco grown in Victoria and New South Wales, and I find that it is 25 per cent. more valuable. The present price of colonial tobacco, wholesale (duty paid), is from 3s. to 3s. 6d.: it would cost from 1s. to 1s. 6d. per pound to cultivate and grow it; the manufacturing would cost about another shilling. It is therefore clear that if duty be charged on tobacco grown within the colony, it cannot possibly pay any one to grow it. I know of some land now under cultivation for growth of tobacco; and three persons of experience in such cultivation have arrived from America, intending to begin at once to plant. Unless the duty be removed, however, it cannot possibly pay any one to grow tobacco. And I would further suggest that a bonus of 1s. should be paid to licensed tobacco-manufacturers for every pound of imported tobacco manufactured by them in the colony during the years 1880–81, instead of 6d. as provided by section 12 of "The Tobacco Act, 1879;" and that no one should be permitted, without obtaining a license, to manufacture tobacco grown on his own property. I think that if persons are so permitted without being obliged to obtain a license, smuggling would be carried on to a large extent.

I have, &c.,

AUGUST VOLLBRACHT.

No. 40.

Mr. CHARLES HARRELL to the Royal Commission on Local Industries.

GENTLEMEN,—

Wellington, 15th July, 1880.

I respectfully beg leave to call your attention to a few of the clauses of the Tobacco Act of 1879—clauses that will prevent manufacturers from introducing tobacco-growing, and cigar and tobacco manufacturing, into the Colony of New Zealand. I submit a few amendments for your consideration: Reduction of license, reduction of duty on leaf grown in the colony, reduction of duty on imported leaf.

I have, &c.,

CHARLES HARRELL.

Clause 5.—A yearly license of £50 is a tax that will press unfairly upon the small manufacturers who may perhaps be engaged in only one branch of the business—that is, making cigars by hand-labour. Under such conditions they would lose about 20 per cent. of raw material through their inability to utilize the scraps, stems, and shorts from the cigar-tables, or the waste from badly-packed cases. On the other hand, the capitalists who are running large concerns fitted up with all the latest improvements in machinery for grinding, cutting, and pressing, work up all scraps and sweepings, and lose absolutely nothing—not even the sand that is brought from the fields in the leaf. Issue licenses monthly or quarterly. Ten shillings per month for each operator engaged in converting raw leaf tobacco into articles of consumption. Apprentices to serve the first year of their time free of license, after which they should be taxed.

Clause 7.—Let the applicant for a license enter into a bond himself in the sum of £500.

Clause 12.—The duty on cigars, cigarettes, tobacco, or snuff manufactured from tobacco grown in the Colony of New Zealand shall be 6d. per pound; the duty on imported leaf tobacco shall be 2s. per pound.

Manufacturers who may desire to produce a medium or superior class of goods will be obliged to use an equal quantity of local-grown and imported leaf—at least, I think so. I arrive at the above conclusion because I have never seen any leaf cultivated in any of these colonies that could be manufactured with satisfactory results unless with an admixture of imported tobacco.

Tobacco grown in the colonies from the best imported seed will require careful cultivation for a number of years before it becomes thoroughly acclimatized and equal in quality to the leaf produced in the country from whence the seed was obtained. Therefore a considerable time must elapse before the New Zealand planters will be able to shut out the imported manufactured goods or raw leaf. In the interim, manufacturers and growers should not be saddled with a prohibitive duty that prevents capitalists from investing their money and drives skilled labour out of the country. From what I have been told about the climate and soil of the east coast of this Island, it ought, as a tobacco-producing district, to take first place in this hemisphere.

A Few Words about the Cultivation of Tobacco.

The best samples of tobacco-leaf are grown only in the West Indian Islands. The next best is a leaf called Florida Havana, produced from Havana seed cultivated in the State of Florida. There are other kinds and qualities of tobacco grown, from Florida in the South to Vermont in the North.

Havana and Florida Havana would grow in favoured localities anywhere between the North Cape and the Bay of Islands; Maryland and Virginia leaf might be successfully cultivated anywhere from the Bay of Islands along the East Coast up to Hawke's Bay, or perhaps to Wellington; Pennsylvania seed-leaf could be located in Marlborough, and Connecticut seed in Nelson; Massachusetts seed in Canterbury and part of Otago.

The prices for American-grown leaf in America range from 12s. per pound for the southern-grown leaf, down to 2s. for the northern. One acre of new land of fair quality will yield about 1½ tons.

The very best Yarra leaf, cultivated on a few of the best plantations in the Island of Cuba, is worth, standing in the fields, 25s. per pound. In the cultivation of tobacco the greatest care should be, to keep the different kinds of plants separate from each other—for instance, Florida and Massachusetts should not be planted near each other.

ARBORICULTURE.

No. 41.

Mr. D. McARTHUR, Inspector of Forests, to Mr. Commissioner J. W. Bain.

SIR,—

Invercargill, 16th April, 1880.

I have the honor, agreeably to your request, to report as follows *re* the saw-mill industry in Southland, as reduced to some system under regulations for properly utilizing and conserving the native forests as far as this can be done through the very limited powers conferred by existing Acts.

After I was appointed Inspector of Forests the regulations for their management were altered and extended so as to suit the saw-mill industry, which sprang up suddenly and extensively after the public works scheme came into operation; previous to which hand-sawyers, fencers, and firewood-cutters were those mainly using the bush, under monthly, quarterly, and yearly licenses. The result of this was the destruction of the forests.

The timber regulations were revised from time to time as experience and circumstances dictated, and now the saw-mill industry is one of the most important in the colony. At the same time it is a matter for great regret that hitherto no steps have been taken to fill up the denuded forest-ground with young trees.

There are at present twenty-three mills cutting on Crown lands, besides several on private property. The former employ 575 men, representing a population of between 3,000 and 4,000 individuals, who receive in wages upwards of £77,000 per annum, which accounts for the prosperous condition of Southland during the last year or two of general depression in other parts of the colony. The most of the above large sum is received from other districts and colonies.

It is much to be regretted that so great an extent of forest-lands has already been sold—for the following among other reasons—viz., that it will now be next to impossible, without expensive fencing, to successfully plant open lands, in consequence of the barking propensities of the rabbits. The present forest area ought therefore to be retained and replanted; and the underwood coming up after the saw-mills would protect the young plants from high winds and extremes of climatic influences, and one-fourth the number of plants required in open lands would be sufficient. Besides, there are great numbers of native seedlings which ought to be protected from cattle by rough fencing, for which the sawmillers leave abundance of material. Many thousands of acres of otherwise useless land in Scotland have within the present century been converted into valuable property by having been planted with larch, Scotch fir, oak, elm, &c.—land then not worth a shilling, but now valued at between £40 and £50 per acre, the annual thinnings of which more than cover the expense of the foresters. Railway-sleepers and coalpit-props for Great Britain are supplied chiefly from these plantations. The Dukes of Athol and Argyle, the Marquises of Breadalbane and Queensberry, Lord Lovat, and the Duke of Sutherland are among those who increased the value of their estates through these plantations. I have seen in Scotland larch trees from one and a half to two feet in diameter, the growth of thirty years. This tree very much resembles the New Zealand red birch in strength and durability, and is nearly all “heart,” and thrives well here. The New Zealand timber is very slow of growth. I counted 500 rings on the planed stump of a black pine lately cut in the Seaward Forest; hence the desirability of planting some varieties of quicker growth.

In 1872 I planted a garden-breakwind with *Pinus insignia*, some of which are now from one and a half to two feet in circumference and upwards of twenty feet high.

The direct revenue from the forests is but small compared with the indirect through the expenditure of the above large amount paid in wages, and laid out mainly in the purchase of a variety of dutiable goods. The direct revenue for the year ending 1879 amounted to £1,711 2s. This sum, however, if judiciously laid out annually in replanting the denuded forest-lands, would, I think, clothe them with a variety of useful and quick-growing plants, any quantity of which can be had from the nurseries here.

I have, &c.,

D. McARTHUR,

Inspector of Forests.

No. 42.

Mr. J. ROBIN to Mr. A. Grant, Secretary to the Dunedin National Industrial Association.

SIR,—

Dunedin, 29th April, 1880.

I have been requested, and have given to the Commission, my views. I would now, however, strongly urge upon them, through you, the great advantage to the country (as has already been pointed out to them) in the planting of hardwood trees on land unfit for aught else, such as ash, oak, hickory, beech, and elm, all valuable timber, which, if planted, would in some instances in fourteen years yield a good revenue.

I have, &c.,

J. ROBIN.

No. 43.

Evidence of HENRY RAFTON, taken before the Commission at Auckland.

Auckland, 8th May, 1880.

My name is *Henry Rafton*. I am a perambulator and basket maker, 245, Upper Queen street, Auckland. I have been nearly four years in Auckland. I was two years in the colony before I could commence my trade, for the want of the necessary materials, which was a very serious matter to me; and even now the material is not plentiful, although I have introduced eleven varieties of the osier-plant. It requires 20,000 osiers to an acre. I have secured a lease of half an acre of suitable land, for which I pay at the rate of £10 per acre per annum rental. I have planted half of it at a cost of £16 10s. for labour. It would require at least three acres of land to give me osiers enough to supply my business. It would be of great assistance to my business if Government would lease to me for a

term of years certain suitable pieces of land on the railway reserves at a low rent. This would also benefit the railway-embankments in wet places. I cannot purchase osiers grown in the colony. At present the whole colony is supplied with osiers from England and Tasmania. It takes two years to obtain a crop of osiers of any use, and four years before a payable crop is obtainable. Large quantities of baskets are imported from America free from duty: if a duty were imposed upon baskets it would tend to the fostering of our trade, and eventually the consumer would not pay any more for baskets than at present. I can compete with the baskets imported from England even now. I made some coal-baskets last week, upon which I only put the bare cost of materials, and labour at 8s. per day. I went round to the ship-chandlers for orders, but I could not sell one of them, because a ship from Newcastle, New South Wales, landed a number of baskets of no better quality than mine, and at no cheaper rate. Formerly I had good orders for these kind of baskets from local ship-chandlers. Had the number of baskets imported been made in Auckland it would have employed one man for eight weeks. One firm imported about ten tons of round cane from China, which is used as dunnage on board tea-ships. They asked me to give a quotation; but I could not purchase, as I could obtain no orders for baskets made from that material.

If perambulators, which are now duty-free, were charged 20 per cent., we could compete with the prices now charged for the imported ones. Perambulators are packed with hair, flock, &c., which reduces the freight to a minimum. Therefore, if a duty was charged the consumer would purchase from us instead of from the importer, who at present derives all the benefit.

There is a large number of manilla kits imported from England duty-free. If a duty were imposed upon these manilla kits it would enable our consumers to purchase flax-made kits at a cheaper rate than the manilla imported ones, and equal in quality.

HENRY RAFTON.

No. 44.

Extract from a Newspaper forwarded by Mr. A. HILLS, Island Farm, Manurewa.

The Production of Wattle-bark.

THE production of wattle-bark having attracted notice in the House of Parliament, some information may be useful. We have gleaned it from the report of the Wattle-bark Board of Inquiry, appointed by the Victorian Government in January last, and to which Mr. Moss referred in bringing the subject before the House, and partly from the memorandum on the subject supplied to the Government by Professor Kirk, of the Wellington College. The report says that any figure above £5 per ton, guaranteed for a few seasons, would have the effect of causing many holders of land to turn their attention to wattle-growing as a regular occupation. This view was taken by nearly all the owners of land who gave evidence before the Board. The age at which trees may be stripped with the best advantage has been determined at from five to ten years. At the present time there are tracts of Crown lands on which the wattle flourishes luxuriantly, although the soil is so poor as to be practically valueless either for pastoral or agricultural purposes. The Board also notice that many extensive areas of land in the districts specified were leased for grazing purposes at a nominal rent, and it was often in patches most barren of grass or surface-vegetation that the finest specimens of wattle trees were met with. On poor lands the wattle grows as readily as grass, and in many instances more so.

There are three species of acacia from which the bark is derived: the first in point of strength being *Acacia pycnantha*, more commonly known by the several names of the broad-leaf, the golden, and the green wattle; next, if not equal in strength, certainly more common in Victoria, is the *Acacia decurrens*, or black wattle; the third is the *Acacia dealbata*, or silver wattle. The *Acacia pycnantha* possesses a thick, glossy leaf, the bark being thinner and smoother than on either of the others. Its bark is superior to any other, but the habit of the tree is not so advantageous, being of a slower growth and not attaining such large dimensions as the black and silver species. For tanning purposes the silver wattle is generally discarded; but it is nevertheless occasionally stripped and mixed with other barks. It grows freely on the sides of creeks and rivers, and on wet, marshy soils; and the bark is weak in tanning material. The black wattle is of vigorous, robust habit, and for commercial purposes is equal to the broad-leaf species. It is in general demand from the rapidity of its growth and the ease with which it can be stripped during the proper season. The Board consider that for all practical purposes it is desirable to cultivate this species, either alone or with the broad-leaf wattle. The report also says that the wattle grows readily in almost any soil, and it requires so little attention as to make its general cultivation extremely profitable. The wood of the wattle is of considerable value for industrial purposes. It can be readily utilized for cask-staves, axle-spokes, for axe and pick handles, and many other articles requiring wood of tough, durable grain. When dried it forms the best firewood known for culinary and all other domestic purposes, also for ovens and furnaces. It emits a clearer and greater heat than any other firewood; and it may be anticipated that, as facilities for transit increase, it will be brought more into requisition than at present. The wattles also may be utilized for fencing, the trunks making top rails of the best description. In addition to the value of the bark and wood a good profit may be derived from the sale of the gum which exudes from the trees. Under such a system of cultivation as the Board desire to see established, the collection of gum could be made an easy and remunerative employment, more especially when the trees are punctured to increase the yield. The Board also state that the bark obtained from trees growing on a limestone formation is greatly inferior in tanning to bark obtained from any other district, although the climate was in every respect calculated to produce better results. From bark grown within five miles of the Buchan River, 42 per cent. of tan-material was obtained, while the bark taken from the limestone formation on both sides of that stream only yielded 29 per cent. The bark in each case subjected to analysis was of the black or feather-leaf species. The bark of the golden or broad-leaf species was also tested, and its strength exceeded all the other species by 55 per cent. Respecting the growth of

the tree, the Board say that they grow on almost any soil, but their growth is most rapid on loose, sandy patches, or where the surface has been broken up for agricultural or other purposes. Where the soil is hard or firm it is recommended that plough-furrows should be made at regular intervals, of, say, five to six feet apart, into which the seeds are to be dropped. Water of a little less than boiling temperature should be poured on the seeds, and they may then be allowed to soak in the water until soft before planting. As the seeds are small, and ought to be sown near the surface, a very little sprinkling of earth will suffice. It is sufficient to drop them at distances of a foot apart along the furrows. The seed is inexpensive, and can be purchased for 8s. or 10s. per pound. There are 30,000 of the *Acacia pycnantha* and 40,000 of the *Acacia decurrens* to the pound. The seedlings can be thinned out at discretion. On loose, sandy soils it can be sown broadcast.

Planting Forest Trees.

The following are the regulations under the Forest Trees Planting Encouragement Acts, 1871 and 1872:—

1. The planting in respect of which a grant of land under the Act is claimed need not be in one block, but may be in several blocks on the same property.
2. The land planted must be securely fenced, and must have been devoted to planting for at least two years.
3. The trees must be in a vigorous and healthy state when the grant of land is applied for.
4. The trees may be of any description, and the number planted must be at the rate of not less than 500 per acre.
5. The trees must be of an average height of two feet, except in the case of gum, wattle, poplar, or willow, which must be of an average height of four feet.
6. As soon as the land is fenced and the trees planted, a report must be sent to the Commissioner of Crown Lands for the provincial district in which the lands are situate, who will cause inspection of the same to be made, from the date of which, if duly certified, the two years will be calculated.
7. The amount of the land-order to be issued under the authority of section 4 of "The Forest Trees Planting Encouragement Act, 1872," in respect of every acre of land planted, shall be £4.
8. The fulfilment of the conditions above prescribed shall be ascertained and shall be certified in the form annexed by an officer appointed by the Governor, who shall forward the same to the Secretary for Crown Lands. Upon the receipt of such certificate the Governor may either issue his own certificate to the Waste Lands Board, or may, if he think fit, cause further inquiry to be made into the facts of the case.
9. No person shall be entitled to receive a land-order under "The Forest Trees Planting Encouragement Act Amendment Act, 1872," unless he shall, at the time he makes a claim therefor, produce to and deposit with the Commissioner of Crown Lands for the provincial district in which the lands are situate a plan of the land planted with trees in respect of which he claims such land-order, showing the marks or numbers by which such land is known on the record-maps in the Crown Lands Office of the land district. The applicant shall also produce and leave with such other office a statutory declaration made by him that, to the best of his belief, the boundaries and dimensions of such land are correctly delineated on such plan, and that no land-order has been previously granted to any person in respect of the planting of the land described in such plans with trees.

BOOKBINDING AND PRINTING.

No. 45.

Recommendations by Messrs. FERGUSON and MITCHELL, Manufacturing Stationers, Dunedin, to the Commissioners on Local Industries.

18th May, 1880.

TARIFF might be safely altered to allow the size known as foolscap, instead of demy, in writing and printing papers, uncut edges, free. The importer, to avoid the duty, orders the paper large or double-foolscap size, to save paying the charges, while the revenue does not get anything, only causing the importers to ship in larger cases.

While coachbuilders' leather is exempt, we plead for the bookbinder the same privilege.

Envelopes, plain, until they can be made in the colony, also blotting-paper, we submit ought to be free.

Bank stationery—bankers' cheques, drafts, bills of exchange, headed paper, printed forms, slips, &c.—Only two banks in the colony, Bank of New Zealand and Colonial Bank, get their supplies locally from Auckland and Dunedin; the only parties who are benefited being the Home manufacturers, the public and shareholders deriving no gain by the banks importing their stationery. Were increased duty resorted to, the local firms could successfully compete—if 5 per cent. to 10 per cent. extra duty was passed—which would give employment to a good many.

Government might distribute some of their work outside of Wellington, so as to encourage tradesmen to settle down in such cities as they may have selected when leaving the Old Country.

No. 46.

Mr. WILLIAM LEYS to the Members of the Commission on Local Industries.

SIRS,—

Wyndham Street, Auckland, 11th May, 1880.

In furtherance of your desire to obtain full information with reference to the industries already established, and which might be promoted in this colony, I desire to lay before you the present condition of my own trade, and will endeavour to show what it might become were it protected for a few years by a judicious tariff. My trade is that of a bookbinder, paper-ruler, and account-book manu-

facturer. In order to be as brief as possible, I shall confine my remarks to my own personal experience of fourteen years in the trade in New Zealand. I have at present all the requisite machinery to carry on all the branches of the above-named business. These machines comprise cutting-machine, ruling-machine, numbering-machine, perforating-machine, sewing-machine, large presses, and a large variety of tools—in short, I have sufficient machinery to keep twenty men employed had I only the work to do; but, unfortunately, this machinery is allowed to stand idle three-fourths of the year, it being only used for supplying orders for lines which the importers run out of, or when time will not permit them to send abroad. Whereby, instead of affording remunerative labour for fifty men, which my own trade-connection alone would keep going, I can only find work for myself and two boys; and, in order even to be able to do that, I am obliged to have all the requisite machinery sufficient to keep twenty men in constant employment. Such is the experience of our trade in New Zealand, which is well represented in every centre of importance throughout the colony. What, then, it may be asked, could be expected from an imposition of duty to foster this industry? The answer is, that all ruled account-books, day-books, ledgers—in fact, all ruled books and papers, and many varieties of stationery, representing many thousands of pounds in labour, would be and could be manufactured in the colony. What remedy, then, is proposed? Why, this: that the Government should steady the industry for a few years by imposing a substantial duty—say the same as in the United States, of 35 per cent.—on all ruled books and papers, and should also relieve the articles used in the manufacture, as far as that can be done without conflicting with the legitimate claims of other industries. These reliefs under the existing tariff I shall presently point out. If such were done, the consequence would be that bookbinders would at once feel justified in largely increasing their staff, and would soon be found manufacturing all account-books, such as ledgers, day-books, cash-books, and all kinds of ruled paper, by the hundred instead of by the single copy, thereby greatly decreasing the cost of manufacture, and thus at once being enabled to sell at a much lower price. A strong competition would soon arise among them, which would also strongly tend to reduce the price of manufacture to a mere minimum. In fact, I would guarantee that, once the trade was fairly and properly established, it would, without protection, stand against all outsiders, as the rate of wages here is not very greatly different from the Home or American rate, and the slight difference would be met by the freight from these countries and the length of time it takes for the delivery of goods on our shores. To show you the impossibility, under existing circumstances, of the local bookbinders competing with the imported goods, I will give you an example from my every-day experience: A merchant requires a specially-ruled ledger to suit his business; the stationers only keep in stock the regular ruled patterns; therefore he is obliged to come to the “local binderies” to get his ledger made. Now, in order to manufacture this one book, a special pattern has to be designed at a considerable loss of time, and that pattern, once completed, would rule a thousand ledgers as easy as one. After the pattern is ruled it then has to go through the whole stage of binding—a process which consists of several branches of the trade, each man being kept constant at his own particular branch—and the book is passed through these various stages before it is complete. The work completed, the book is sent to the merchant. Now, if ever that merchant requires another ledger of the same pattern, he tears my pattern out of his book, and sends it Home to London, to be manufactured there and sent out again, ready-made, to him in New Zealand; and, as nearly all the importers act on the same principle, I should not be justified in making up other ledgers of the same pattern and keeping them in stock for persons in the same line of business as the original orderer, because they would either compel me to take whatever price they chose to offer, or have them lying on my shelf for ever. Thus you can at once see how impossible it is to make this first-class industry ever prosperous in this colony if the Government continues to allow such unfair conduct on the part of our importers to continue. Here is the importer who earns his living and supports his family by selling us his imported ready-made goods; and if ever he should require an article for his own particular business, rather than give those people from whom he is gaining his wealth the work to do, he is found sending his money out of the colony, and getting it made elsewhere. There is just one especial point to which I wish to direct the attention of Government—it is, that if they will only foster and protect this trade until it is thoroughly well established, it will be found to give good employment to some hundreds of good men in the trade, many of whom have been induced by the Government to come out to New Zealand, but, unfortunately, when they arrived had to work on roads, &c., there being no employment for them in their own line of trade; and, if once thoroughly established, I am quite convinced that the consumer would not have to pay more for the colonial-manufactured article than he does at present for the imported article. Coming in the last place to the tariff as it stands at present in relation to my business—I wish particularly to point out that the duty on bookbinders’ ruling-inks, red and blue, which are not and cannot be manufactured in the colony, owing to the smallness of the demand, should be repealed, and such inks should be admitted free; also, the duty of 15 per cent. on bookbinders’ leather, which is of a finer quality than colonial tanneries manufacture, and therefore must be imported, should be abolished. Trusting that these remarks will aid you in your labours, and that you will see your way to foster and encourage the bookbinding and paper-ruling industry—an industry which might, if properly fostered, become one of the chief in New Zealand, and would probably furnish, through the very dullest of times, constant employment to hundreds, if properly worked,

I have, &c.,

WILLIAM LEYS.

BRUSHWARE.

No. 47.

Mr. LOUIS HENLY to Secretary, Chamber of Commerce, Dunedin.

SIR,—

Dunedin, 14th April, 1880.

In connection with circular letter of the 5th instant *re* local industries, I would most respectfully submit as follows:—

Having recently arrived in this colony and started a manufactory of American brooms and brushware, deeming the Colony of New Zealand a fair field for such industry, I would suggest for your kind consideration subjoined facts, in order to make the enterprise a success, both in the interest of the manufacturer and the public at large.

1. To admit, as heretofore, the raw material free of duty, in the way of broom-corn, or millet, none being grown in the colony.

2. To remit, if possible, existing duties on wire, 19 to 22 gauge, sewing-twine, and other material required in the manufacture of brooms which cannot be produced in the colony. But, as there are ample facilities for the local manufacture of handles, I would suggest leaving the tariff as it is.

In conclusion, I may mention that, should this meet with your favourable consideration, this industry will employ a considerable number of hands and increase the weekly wage-fund disbursed here considerably.

Trusting that this will meet with your kind consideration and attention,

I have, &c.,

LOUIS HENLY.

No. 48.

Messrs. GIBBS and CLAYTON to Secretary, Chamber of Commerce, Dunedin.

SIR,—

Dunedin, 14th April, 1880.

In answer to your circular we beg to state that we have fostered a Brush, Broom, and Fibre Company, which promises to be a large business in the future, and to employ a large amount of labour; and, as the import of brushes and brooms is large, we would recommend a duty on these articles.

We may mention that our Mr. Clayton was the first to introduce machinery here for making sashes, doors, and all kinds of mouldings; but the numbers of factories now started in New Zealand have overdone the business. This appears to be the result of too much protection. My opinion is that heavy protective duties are injurious, as local competition is worse than foreign, and we cannot export. We are agents for a broom-factory just started in this city, which we believe will develop into a flourishing industry.

We have, &c.,

GIBBS AND CLAYTON.

No. 49.

Mr. THOMAS J. HARBUTT to Mr. Commissioner Tinne.

SIR,—

Auckland, 5th April, 1880.

I have read your letter in the *Herald* of this morning. I am a wholesale brush-manufacturer of some four or five years' standing in the city; during which time it has been a stern fight for me. The recent addition in tariff will, I hope, do some little good for me in the future. I might explain, however, that, being a maker of household and ships' brushes only, and not a maker of paint-brushes and fancy toilet-brushes, an additional 5 per cent. would be of great value to me, added to the tariff, besides the 5 per cent. already added, the fancy and paint brushes remaining, as before, at 10 per cent. The fancy and paint brushes are a distinct trade, involving more capital but not employing so many hands as the household and ships' brushes industry. So many interests are bound up in keeping the present importing as it is, that it is difficult to get the orders from being sent through the same groove. As a rule I only get in Auckland the orders for such goods as merchants and others run out of while they may be waiting for auction-sales occurring or imported goods arriving. I feel confident of the future success of the manufacture I am engaged in; but meanwhile I should like to enjoy some measure of the success, before I have to leave it to my children to carry on. I am sorely feeling the need of more capital in my business to fully avail myself of the position. By the addition of labour-saving machinery so largely in use in the English and American brush-shops, a much larger quantity could be turned out at a comparatively less rate of cost. When I came out with my wife and family, at considerable expense, per s.s. "Zealandia," I brought largely of various manufactures, intending to have gone into one of the best-paying of them—viz., the manufacture of household crockery-ware. However, I did not feel able to go at it alone, from want of sufficient capital; so decided to start a brush-factory, in which I have now about thirty hands employed. My goods are well and favourably known throughout the colony. I am now about adding the manufacture of American corn-brooms, having already got the necessary plant, and only awaiting the raw material, which I have made arrangements to get supplied monthly per mail-steamer from San Francisco. It should be grown in this country, and no doubt will be when we get further advanced: meanwhile I import it. I have always been a free-trader, and it seems an anomaly for me to seek protection; but in a young country industries require nursing and fostering, and one cannot expect them as a rule to be at once self-supporting, any more than a young infant to be able to walk right away. Apologizing for the length of this epistle,

I have, &c.,

THOMAS J. HARBUTT.

No. 50.

Mr. THOMAS J. HARBUTT to Mr. Commissioner T. F. S. Tinne.

SIR,—

Auckland, 22nd April, 1880.

I have thought it well to give you some particulars in a contrasted form, showing the differences, without taking into account the extra cost of remittances, which Home makers do not incur. I have been, some time ago, in communication with Wellington, also with Mr. Stevens before alteration of late tariff, and wish to make you acquainted with some of the particulars which I then sent. Apologizing for again troubling you,

I have, &c.,

THOS. J. HARBUTT,

I have for some years past endeavoured to get captains and those trading to the Islands to keep a look-out for any fibrous plant or tree suitable for making brushes; but as yet without success. Few will take the trouble; besides, some knowledge of botany is necessary. I have no doubt that such will ultimately be found, which will make us independent of England for fibre, besides enabling us to export largely an article ever increasing in value.

T. J. H.

Prices paid in Auckland, New Zealand, 1880.

Boring-work, 8d. to 10d. per 1,000 holes; 2s. to 3s. 6d. per gross extra for shaping boards.
 Drawing-work, mostly female labour, 1s. 3d. to 1s. 6d. per 1,000 holes.
 Pan-work, setting bass, 12 holes per penny.
 Pan-work, setting hair, 14 to 17 knots per penny.
 Here females and apprentices have to be taught at a considerable loss, and never sure of keeping them long.

Raw materials have to be bought in larger quantities, and several shipments kept in transit to insure constant supply; causing more capital to be needed to carry on works here.

The British trade combines five or six branches, besides wood-turning and japanning, the whole of which are rarely carried on by makers at Home; but here I am obliged to combine the whole; although not sufficient work to keep, as yet, men going at it continually.

In England the brushmakers are supplied by traders, who work to supply their wants, such as wood of all kinds, also japanned woodwork of all kinds, dressed hairs, &c.

I have now steam-power to do all my own turned work, and nearly all the japanned work, using kauri for nearly all, which answers for most work fairly well.

I employ about thirty hands in all; many of the ordinary factories at Home employ 500.

Few branches of industry form a better opening for labour than the brush trade, labour forming so large an item in the cost. The present tariff does protect and help so far, but not sufficiently, on the common household and ships' brushes, which I make alone, not touching the finer toilet, paint brushes, &c., which are a distinct branch of the trade; and if put at 10 per cent. duty might well allow an extra 5 per cent. on the foregoing cheaper class, making it 20 per cent. tariff in all.

THOS. J. HARBUTT.

No. 51.

Evidence of Mr. THOMAS J. HARBUTT before Messrs. Commissioners Tinne and Burns, at Auckland, 1st May, 1880.

My name is *Thomas J. Harbutt*. I have been about four and a half years in New Zealand, four years of which I have been in the brush trade. Referring to my letter, I can supply any articles to the trade at fair profits according to my price-lists; but the trade are not content with a fair profit, therefore they import the article, and the consumer has to pay the same price for the imported article as for mine. But if a duty was imposed, it would tend to bring the trade to me as a manufacturer, instead of to the importer. Since I have started this industry the price of brushes has been reduced to the public. I am not able to compete with the low-classed article made by what are called in England garret-men—that is, men who do this brush-manufacture at home at their odd time, assisted by their families, and at a very small cost. But I make a first-class article, and my customers inform me that one of my brushes lasts as long as three of the imported brushes. My industry also saves money to the wholesale men, because they are not required to lie so long out of their money on orders, nor yet to keep large stocks. I am quite prepared to take the orders at English prices, with costs and charges added; but my difficulty is to get the importers to give me the orders they send to England; but as yet I cannot succeed with them. I am necessitated to keep a large stock of material, equal to at least 5 per cent. on the article; but, for all that, I am quite willing to submit to that for a time, if I could only secure the orders now sent to England. I have also sent a circular to all my customers, before the tariff was imposed, stating that, if a duty was put upon the imported article, it would not increase my prices. My object is to secure a large trade, and from that source I would make my profit. In getting up a brush I find that about 25 per cent. goes for imported material; 75 per cent. is taken up in material grown in New Zealand and labour. In some articles the proportion of the imported part is only 12½ per cent. As my trade increases, I can get the division of labour further introduced; at present I am obliged to make many articles on my premises that ought to be made outside, as is done in England; this requires more capital to be invested by me here. If the Commissioners could in any way bring under the notice of persons doing business with the Islands the getting of fibre for me, it would be of material benefit to my industry. Fibre suitable for brushware is becoming very scarce in England, and if good fibre could be procured it would be a public benefit, and lead to a large and valuable export trade. I am now making arrangements to start the American corn-broom trade; it would materially assist this industry if farmers and small holders could be induced to grow this plant. I have most successfully grown this broom-corn. It would pay well and be very remunerative to a farmer.

THOMAS J. HARBUTT.

CABINETMAKING AND UPHOLSTERY.

No. 52.

Messrs. GUTHRIE and LARNACH to the Chairman of the Local Industries Commission.

SIR,—

Dunedin, 9th April, 1880.

In compliance with Mr. A. J. Burns's circular letter we have the honor to report as follows regarding the shipping and timber industries in this district, and the means which recommend themselves to us for making these permanent and beneficial to the colony:—

The depression in trade which has been felt throughout the colony for the last year is very fruitful in suggesting the necessity for measures calculated to provide employment for the masses, and remunerative outlets for the resources of capitalists, and has brought home with startling clearness to the most of the thinking of both classes, that this can only be accomplished by a thorough adjustment of the tariff.

As proprietors of the largest manufacturing establishment, and employing, we believe, the largest amount of labour, in the colony outside the Government, our own experience may perhaps form the most perfect proof of this truth at command.

Our woodware and furniture factory has now been in existence for many years, and represents an investment of £36,000, capable when in full work of giving employment to from 400 to 500 workmen. At no time during this period has its capacity of production been fully tested, and at the present moment it is in a languishing condition, which may be gathered from the fact that only 140 workmen are employed, and that upon three-quarter time. This condition of things is not isolated by any means—it is universal throughout the colony; and the causes which lead to this appear to be, first, that the consumption is reduced to local manufacturers through the influx of goods from Britain and America, which are retailed at prices not necessarily required to yield a profit; and, second, that, owing to the high price of labour and money, local manufacturers are debarred from entering on the unequal competition with imported articles, and consequently their trade stagnates.

Regarding the first-mentioned cause, we might explain that British manufacturers (and, in a lesser degree, American also), having the basis of cheap labour, cheap money, have as a natural result command of the markets of the world, and are thereby enabled to tax their manufactures to the utmost, reducing the cost of production in proportion as the quantity produced is increased. The wider the market, the greater will be the consumption. As the consumption increases the cost to produce decreases.

The second point embraces all the difficulties the local manufacturer is labouring under. He buys his labour and money at an enormous cost over his foreign rival. His market is therefore confined to his own country, and even the competition follows him, which the importing charges do not nullify.

If it is granted as essential to a young country that her internal resources should be developed, it must follow that inducements should be extended to capitalists for the establishment of manufactures, by providing for the consumption of their products; and to successfully encourage such enterprise a protective tariff is, we believe, the only course. It is true that, even without protection, manufactories will be instituted; but these will, we venture to affirm, never reach the stage of development which is essential to render a country independent of outside assistance. The manufactories may linger on in a struggling condition; but they will never form what is essential to our condition—employment for the rising generation, an attraction to overcrowded British workmen, factors in building up the State by enlarging the population and revenue, in encouraging a spirit of invention and emulation, and in raising the standard of the country's workmen. The common objection to a protective policy is that it places the country at the mercy of the manufacturers as to prices; but this is a fallacy which American and even Victorian experience has overthrown. Were protection to become the policy of the colony we believe it would be found that prices would not increase, but rather the reverse; because, first, the entire colonial market being open to local manufacturers, the increased consumption would necessitate increased output, and this would imply greater advantage to the manufactories and consequently less cost to produce. The natural law of competition would effectually regulate cost to consumers and prevent monopoly. Second, the increased operations in the factories would offer increased means of occupation to the present inhabitants of the colony and inducements to foreign workmen, who, by augmenting the population, increase the country's revenue and wealth. This increase would eventually compensate for any loss of revenue by the discontinuance or decrease of importations. The money at present sent out of the colony would circulate in it—a most important consideration.

As affecting ourselves, we may here enumerate some of the more important industries which are at the present moment either non-existent or suffer by the competition with importations:—

1st, furniture.—The colony possesses in an unrivalled degree the staple for making the cabinet-making industry second to none. The native timbers are almost without exception admirably fitted for the work, easily procured, easily wrought, rich in figure and colour; and yet the local-made article is comparatively little used in the presence of the imported article.

2nd.—Woodwares, comprising doors, sashes, tubs, buckets, cheese-moulds, churns, butter-firkins, washing-machines, washing-boards, knife-boards, wheelwrights' work, ladders, &c., are all equally capable of being manufactured locally, but have never been able to take the place of the imported article.

3rd.—The Government have hitherto imported the passenger railway rolling-stock, although local manufacturers could as efficiently have built them from local timbers. Considering that the latter course would have employed men in the bush, in the vessels, and in the workshops here, the loss to the colony must have been serious in this particular alone. It cannot be urged that the colonial workmen are not equal to the task of construction. If evidence were needed to refute that, it would be found in the most casual inspection of colonial workshops.

To put practically before you the effect of the readjustment of the tariff by the adoption of a protective policy, we may say that, with the colonial market free from the imported article, and our productive powers thereby brought into full use, our manufactures could be placed in it at a reduction of 20 to 25 per cent. The reduction thus shown would not only enable us to supply the colony

without increase, but also to modify prices; and, as labour becomes more plentiful, and its cost and the cost of money modified, our market would become more and more extended, embracing the neighbouring colonies. The permanent nature of the work thus provided for the labouring-classes would compensate most fully for any possible modification in the rate of wages, while workmen would be less liable to be driven to seek uncongenial employment in other than their legitimate pursuits.

Under such circumstances free trade would become possible without injury to the colony, because the conditions of competition would be equalized, and no possibility would exist of the re-establishment of foreign supremacy in our markets. So far as our extensive experience as manufacturers and importers can show, we have become convinced that such a consummation is not possible under present conditions. If growth were possible it would be at the best slow, laboured, immature, and unsatisfactory. Protection offers to our view the one possible means of achieving the aim while conserving the best interests of the colony. With it, in the present, we shall be able best to realize those conditions which have made Great Britain independent of it, and thus work out the idea of all political economists, who teach that free trade is something ideal to which to rise, but whose operations must be varied to the circumstances of a community or nation.

I have, &c.,

WALTER GUTHRIE,
Managing Director, Guthrie and Larnach's New Zealand Timber and
Woodware Factories Company (Limited).

No. 53.

Mr. R. J. WHITE, Cabinet and Upholstery Manufactory, Christchurch, to W. Hoskins, Esq.,
Town Clerk, Christchurch.

SIR,—

19th April, 1880.

Referring to your letter asking for information as to local industries, we employ about sixty hands, but find we have many drawbacks to contend with. Firstly, the prejudice against colonial work: in days gone by there is no doubt that a large quantity of rubbish was turned out by unskilled workmen; but now we have some of the best workmen that England, France, Germany, and Italy can produce, and all we want is the public and the Government to appreciate our efforts in not sending out of the country for any goods that can be produced here.

Another drawback is our timber. Now, we find all our colonial timbers so difficult to season. We sometimes fancy that Government should insist—that is, where they have control over forests—to have it cut only at certain times, so that the sap should not interfere with the seasoning for the purpose of manufacturing.

Another encouragement would be to remove all duties from timber, so that it may come in free.

Of course you are quite aware that we pay much more for labour than in any part of Great Britain. To counteract this we want the Government to give us all the encouragement they can to get cheap and good timber, so that instead of using colonial we may use imported when necessary.

Our local industries of all kinds must be fostered at all risks; or what is to become of the present generation just springing into manhood?

Our laws relating to apprenticeship must be of the most liberal kind, both as regards master and apprentice; no loophole should be left for either, and they should be to the advantage of both. That will be the one way to encourage us to produce and teach others.

Another idea which I believe would have a very good effect on present and future would be to establish, as soon as possible, schools of art all over New Zealand—I mean in all the centres of population, such as Dunedin, Christchurch, Wellington, &c. If we take the mother-country for our guide, we must all admit what good they have done in promoting taste for all that is lovely in nature, and bringing out ideas which would not have been developed had it not been for schools of this class.

I have, &c.,

R. J. WHITE.

No. 54.

Evidence of a DEPUTATION from the CABINETMAKERS of DUNEDIN before the Commissioners,
Dunedin, 18th May, 1880.

A DEPUTATION from the cabinetmakers of Dunedin, comprising Mr. H. North, of North and Scoullar, Dunedin; Mr. R. Chisholm, of the same firm; and Mr. Gillies, of Craig and Gillies, Dunedin, waited upon the Commission this afternoon, and gave evidence.

Mr. H. North: I may state, gentlemen, that we have condensed our remarks into writing, and, if you will permit us, we will read them to you. Perhaps that will save time, and we can discuss it afterwards.

Mr. Chisholm then read the accompanying statement, as follows:—

GENTLEMEN,—Thanking you for your courtesy in permitting an interview, we have pleasure in laying before you the conclusions which many years' experience have forced upon us in connection with the subject of encouraging or protecting local industry; and we would preface these by expressing our strong convictions that a protective duty on such articles of furniture as we import would be fatal to our interests and paralyze trade.

Our experience in the manufacture of furniture in Dunedin has extended over a period of more than fifteen years, and even now, in the depressed state of trade all over the colony, we employ upwards of fifty hands in the manufacturing and carrying-on of our furniture business; and our experience has invariably been that, when additional duty is placed on articles of furniture, no benefit is derived by the manufacturer, while it prevents the sale of goods we find it necessary to import, and consequently prevents much labour being spent in the fitting-up and finishing of articles which, if not imported, cannot be made in the colony, thus causing a general depression throughout our trade.

There are many articles we import in our business which the colony for many years cannot produce, and in which no amount of duty can possibly enable the local manufacturer to successfully compete with the importer. The only effect in such cases that an increase of duty could have would be to increase the price of the article to such an extent that very few people would be able to purchase; and, as this applies to all the better class of furniture, trade would be paralyzed, while no good would result either to the manufacturer, the mechanic, or the public at large. Take, for example, one common article of furniture that is to be found in almost every house in the colony—a common American cane chair. An attempt has been made by more than one firm here to produce these, and machinery has been brought at considerable expense to bear upon their production; but all has signally failed to produce an article at anything even approaching the price of the imported article. The price of this chair, manufactured in America, after paying duty, $16\frac{1}{2}$ per cent., together with all shipping and other charges, is 7s. (made of oak): now, to produce this chair in the colony the timber, in either red pine or kauri, would cost 3s.; caning and cane, 3s.; turning, 2s. 6d.; labour—making, 3s. 6d.; and varnish and varnishing, 1s.; total, 13s., as against a better article in every respect at 7s. So that, to protect the local manufacturer here in the case cited, you would require, in addition to the present high rate of duty, nearly 100 per cent., and then the importer could successfully compete. This is by no means a solitary case: the same could be applied to almost every article of our best furniture. Take another example: a lady's small worktable, which we retail at £3 10s., could not be produced in any factory under at least £8. Were the cry of our protection friends given effect to, the consequence would be that the people, instead of being able to furnish comfortable homes at a reasonable price, would require to pay nearly double; and, instead of doing a thriving trade, our business would be crippled, and the door closed against many a mechanic who is now earning a comfortable living. We do not believe it is the working-men that are clamouring for protection: we believe they have too much good sense, and are able to see the evil results that a protective duty will bring upon them. We believe that the cry is raised by a few manufacturers and others interested, who would, if possible, have our ports closed in order that their particular factories might flourish; and, in order to elicit sympathy from other quarters, they raise the popular cry, "What shall we do with our boys?"

Now, gentlemen, we would respectfully invite you to pay a visit to our warehouse and factory, and there witness for yourselves what our boys are learning. There you will find them, some of them working journeymen, others learning to become tradesmen, in all the departments connected with our business; but none, as our protection friends would have them become, mere tools to run certain labour-saving machines, as can be seen in some factories in Dunedin at the present time, growing up with no more idea how to produce any article than the machine they are tending. And this is the position longed for and advocated by our ardent and enthusiastic protection friends that our boys should occupy.

Gentlemen, in conclusion, let us say that we look upon protection with grave alarm, as being a principle, if carried into effect, that will result in the greatest evil that can possibly befall a young colony like ours; and that, so far as our business and manufactory is concerned, we have no need of a protective tariff to nurse and bolster it up, but would respectfully submit that the present duty on furniture should be reduced to its old rate of 11 per cent., which is as much as the public can afford to pay, especially in these depressed times.—We have, &c., NORTH AND SCULLAR.

1. *Mr. Stevens* (to *Mr. North*.)] The old duty was nominally 10 per cent., was it not?—Yes.
2. But practically 11 per cent. ?—Yes.
3. I understand you to say that you are able to give your boys and people in your factory a thorough training: I suppose that they are apprenticed ?—Yes.
4. They serve their time and come out complete mechanics ?—Yes.
5. And you say that in other factories they are employed in a different way—namely, running labour-saving machines. Now, I would ask you why labour-saving machinery is applicable in the one class of factory and not in the others?—Because we do not manufacture such a class of goods as the labour-saving-machine factories make.
6. What are the classes of goods they are used for?—These labour-saving machines are applied principally to making the commonest class of goods that can possibly be manufactured. That is the reason why we, as manufacturers, do not employ much machinery to produce cabinet furniture: in fact, we cannot produce good cabinet-work by machinery.
7. Do these other factories also make good cabinet furniture ?—By hand, but not by machinery.
8. They employ, I suppose, a certain number of apprentices also ?—Some of them do.
9. Or only fully-trained and experienced mechanics ?—Some do; but wherever they can employ boys they do so, and then employ skilled workmen to finish their work.
10. Is there any part of the material that you use—what I may call the raw material—in your manufactures which is at present subject to duty of any kind?—Yes, there is the imported cedar, which we manufacture our work with. I think there is a duty of 2s. per 100 feet on it; and that, I think, may be easily reduced. However, it is not a very large tax. We are not such bigoted free-traders as you may say; but we think our imported goods should make a fair contribution to the revenue, and imported timbers the same. We do not ask that the cedar should be admitted free of duty. The duty is, as I have said, only 2s. per 100 feet—it was formerly 1s.—and the public at large do not feel any effects from that duty.
11. Is there anything else?—Imitation of hair-seating, 10 per cent.
12. Do you use these things?—Yes. Hair-seating might be admitted free. I think that in a colony like this, in fact in none of the colonies, we shall ever be able to make hair-seating. The consumption of it would not warrant any one erecting the machinery. It would, in fact, require as much to make hair-seating as to manufacture carpets. I would like to point out to you, gentlemen, the chair that I allude to in our written remarks now before you [holding up an American cane-bottomed chair]. This chair is a common chair of the description I allude to. Chairs of this exact description are imported here by the merchants for 7s., as we say in our statement. The timber of this chair, as you perceive, is oak. We have no oak in this country. Oak is a very strong and durable wood. If we made this chair here we should have to use kauri, or red pine, or cedar. The timber in this chair, at the very

least, would cost us 3s. 6d. Then, again, to cover this seat would cost us 3s. To turn these legs, rails, and all these spindles would cost us another 2s. 6d. at the very least. A mechanic, to make that chair from the raw material—that is, to put it together—would take, in time, at least two hours, at a cost of 3s.; and that could not be done unless he was assisted by a little machinery. Then there would be a boy varnishing, and the finding of the varnish, which would cost another shilling. So that you see the total cost of such a chair, to be made here, would be brought up to 13s., while the merchant can lay down such a chair in Dunedin at 7s. We ask you, gentlemen, if these protectionist people want these goods to come into this colony. If these gentlemen want the public to pay 13s. for this chair, then I think the demand for such chairs will be very small indeed, because you will see at once that the public will have to pay nearly 100 per cent. more for the same article than they have to pay for it at the present time.

13. Your argument, as I understand it, is that the public, or, rather, the consumer, would have to pay more for a far worse article, simply because his power of purchasing would have been limited. In other words, what you wish to express is, that by depriving him of the opportunity of buying a chair for 7s. by raising the price artificially to 13s., his purchasing-power is reduced by so much, and he must purchase a worse and less comfortable article?—Yes; he must buy a very inferior article. If you will permit me, I will show you the small worktable we have alluded to in our remarks, and which a great many of our protectionist friends here say ought not to be permitted to come into this colony.

Mr. Gillies: I have just one remark to make in addition to what Mr. North has said about this chair. That chair, if made here for 13s., must be made of native timber. This one is of oak, and would be ten times better than that of native timber, on account of its greater strength and durability.

Mr. North [producing a table]: This table is imported. We call it an inlaid backgammon-table. This [opening the top] makes a card-table, and it may be turned into a lady's workbox in this manner [illustration]. Our protection friends say that these goods should not be permitted to come into the colony. Now, I can tell you from my practical experience that it would be impossible for us to make an article like that under £8 or £10, whilst we can afford to sell it as imported for £4 or £4 10s. What I am saying is borne out by facts, which I am strictly adhering to. I say, why should the public be debarred from purchasing that class of article simply because a few of the public clamour to have these sort of things prohibited? If it were made here it would be made after a style. It is impossible to make it here like that, because at Home this kind of marqueterie-work is a trade in itself. In England you could pick one hundred devices in this class of work. It would never pay any firm here—indeed, it would be sheer madness on their part—to attempt to erect intricate machinery to do the various kinds of work required to make this class of goods. I say, why should people here in affluent circumstances be saddled with at least 100 per cent. more on this class of furniture—the better class of furniture—simply as a matter of protection? I would respectfully ask you (since you have no doubt heard that there has been a hue-and-cry got up amongst the protectionists here—namely, “What shall we do with our boys?”) to visit our warehouse and factory, where you will see what our boys are doing, from beginning to end, in making the goods that we manufacture, and how we help to make them become thorough good tradesmen—I should say, good colonial tradesmen.

14. *Mr. Stevens*.] For what length of time do you apprentice them?—I may tell you that, although we have a large number of boys in our employ, we do not bind them as apprentices; that, we find, does not work in this colony. We take our boys for four or five years, and say to them, “We look to your parents; we morally bind you. While you are good lads, pay attention to your work, and do what you are told, you will be taught your trade; but if you do not do that, you will be turned about your business.” That is our system of teaching lads here to become cabinetmakers.

15. Is there no fixed time?—Yes; we agree with them for four or five years, according to how we take them. We start them with 5s. a week, and they leave off with 25s. a week, they getting a rise of 5s. every year.

16. When they have passed through your hands and become journeymen, what wages are they able to earn?—When their time is out we give them 8s. a day.

17. Is that the same wage as the others get?—Some of them get 8s., some 9s., some 10s., and some go up as high as £4 a week.

18. Are they paid by piece or weekly wage?—Some by piece and some by day work.

19. According to ability?—Yes.

20. I suppose those who receive £4 a week are very skilled workmen?—Yes; they are hands we have had many years—in fact, they are our leading hands.

21. Are the lads in those factories which employ labour-saving machines apprenticed at all?—I do not think a great many are. I may tell you that a great many of these lads are brought up in this way: they start with, perhaps, 5s. per week, and they are taught to run these machines. They perhaps stick to it for two or three years, but so soon as one of them wants to get a little more wages he is turned adrift, and another boy at 5s. or 6s. a week is put on in his place. In another ten years, if a system of protection is carried on here, it will be one of the greatest evils that we will have to put up with—namely, allowing boys to become mere tools, and nothing better. The same thing applies to other businesses. We cannot shut our eyes to what is going on, even now, in the boot and shoe trade, and in some of the factories it is the same thing. As soon as the boys are able to do clicking or sew soles they get turned adrift. What is the good of them? By-and-by you will not be able to find a man here who can make a boot.

22. You mean, who could make a boot from beginning to end?—Yes.

23. I suppose where they manufacture the commonest classes of furniture a boy is engaged in producing one particular branch of a chair, such as the moulding?—Yes.

24. In fact, he is not a furniture-maker at all?—No; they are not mechanics at all. If you were to give a table like that (which, by the way, has been made by our firm) to some tradesmen to make, I do not think they would know how to begin to make it.

25. I suppose that you make a great deal of furniture from beginning to end of New Zealand woods?—Yes, from beginning to end.

26. *Mr. Bain.*] Do you use much native timber?—Yes, a great deal. I may state we have upwards of fifty hands constantly manufacturing the goods required by our business: in fact, we sometimes have seventy—that is, when trade is good.

27. *Mr. Stevens.*] When you make furniture of colonial woods, do you find that you can compete with factories that employ labour-saving machines?—Yes.

28. Yet your system is different from theirs?—Yes. We even do a larger trade than they do—for this reason, people who have used the labour-saving-machine-made furniture once will never have it again.

29. *The Chairman.*] But these American chairs are made by machinery?—Yes; but in America, of course, the consumption is enormous, and machinery is brought to such perfection that it would take us many years before we were able to attain to similar perfection.

30. *Mr. Stevens.*] Do you import any portions of the furniture in a complete state, such as this table [shown]?—No.

31. *Mr. Bain.*] Rough and unpolished, I suppose?—Exactly.

32. Are table-legs made here?—They are made in their rough state at Home. We import them all. Everything else is done here. That is why we invite you, gentlemen, to come and see our warehouse—in order to satisfy you that furniture-importers do not, as some people suppose, import these goods direct from England or Scotland in a perfectly-finished state. It nearly requires as much labour here to put the goods into a finished state as to manufacture them altogether.

33. *Mr. Stevens.*] Is that course adopted because the risk of injury is less?—Of course the risk of injury is great if you import an article in a finished state. For instance, an article of this description [the card- and work-table] cannot be imported in a finished state, for the reason that in coming through the tropics the polish would be taken off by the heat, and it would need to be rescraped and repolished. The same thing applies to other classes of goods if you import them in a finished state. Another thing is that they would then take up immense bulk and generally get damaged.

34. *The Chairman.*] And freight must be enormously increased?—Yes.

35. So that, bringing them here in an unfinished state, you find that you can produce an article under much more favourable conditions than if imported in a complete state?—Oh, yes! We employ as much labour to finish the article here, and when it is finished it is as good to the consumer, as if it had been finished in the Home-country.

36. *Mr. Stevens.*] Now, as regards the duty, it used to be 10 per cent. nominally, now it is 15 per cent. What is your experience of the effect of that increase since it came into operation?—As we have said, we find that these additional duties limit the sale of goods; and, of course, that means limiting labour and everything connected with it. When the tariff was 11 per cent. or 10 per cent. we were perfectly contented. We do not wish it to be anything less than that. We think that that was fair to the revenue. All the years that we have been in business we never heard any one grumble about the price of goods when these charges were put upon them. But with the tariff at 16½ per cent., it paralyzes our business and cripples our trade. The more expensive articles, which come up to £20 or so, when these duties are put upon them come to be very heavy items indeed. Our wish is that you will lay before the House our objections to the present high rate of the tariff, and so recommend that the tariff should be brought down to its old rate; for which we shall feel grateful. You must recollect that, at whatever rate the tariff is put, of course the public—that is, the consumer—has to pay the difference. That is why I ask, why should this chair be obliged to be sold at 13s. when it can be got for 7s.?

37. *Mr. Bain.*] That chair is sold at 7s., you say?—It is imported at 7s., and it would cost us 13s. to make an inferior chair of the same sort.

38. *The Chairman.*] The chair is sold retail at about 10s. It would have to be sold, I suppose, at 17s. or 18s. if made here?—At 13s. with our profit added.

39. *Mr. Stevens.*] You think, then, that there is reason to complain that the 15 per cent. duty is restrictive, so far as the consumer is concerned?—Yes.

40. Consequently it restricts the labour that you would otherwise employ?—Yes. I may mention that Mr. Gillies represents the firm of Craig and Gillies, another large manufacturing firm and importer of goods in this town. We have consulted together, and he thoroughly indorses our remarks in this matter.

Mr. Gillies: Yes. I may add that we have been sixteen years in this town.

41. *The Chairman.*] I understand that both of your firms are large manufacturers of colonial furniture?—Yes.

42. You will see why I want to put this question, and its importance. I want to ascertain clearly whether the evidence you are now giving is given not entirely from the point of view of the importer?—It is not.

43. I suppose you manufacture almost as much colonial goods as you import?—Yes; but, of course, of a different class and style. I may mention that there are many classes of furniture which we make, and do not import. For instance, we never import chests of drawers, because we find we can manufacture good chests of drawers here and sell them as cheap as we can import them. Chiffoniers, wardrobes, tables, bedsteads—all kinds of things that we find it profitable to make, we do.

44. Can you tell us shortly, or can you distinguish between, the classes of manufactures you can make here and those you can more advantageously to your trade import?—The class we have made is confined strictly to New Zealand woods and cedar. We find that it is impossible to make the best class of work out of those kinds of woods. For instance, you gentlemen would not like to have your dining-room furniture made of kauri, which is a bed-room wood. No gentleman would have his dining-room furniture made of it. That is the distinction between colonial-made and imported goods. We have to import goods of a more finished nature. They are of a different style altogether.

45. *The Chairman.*] Of a more durable kind, too?—Yes.

46. *Mr. Bain.*] Could you make chairs like that without oak?—Yes, we have made them; but we cannot make them like that. We cannot make them so durable, because we have not the timber. We must import the oak and leather-bindings in order to make them.

47. *The Chairman.*] Can you not get that leather in the country?—Yes, but not morocco.

48. In fact, it amounts to this: the right time has not yet arrived for the manufacture here of these things?—That is the whole thing. We are not ripe for it. We are wanting to become many years before our time. That is the difficulty. In another twenty years it will be soon enough to prohibit these goods from coming into the country.

CANDLE AND SOAP MANUFACTURE.

No. 55.

Evidence of Mr. McLEOD (of McLeod Bros., Candle-manufacturers) before the Commissioners on Local Industries, at Dunedin, 18th May, 1880.

I UNDERSTAND the Commissioners want brought before them my views on chemical manufactures, such as sulphuric acid, soap, stearine candles, and artificial manures; and the interdependence of such industries. I would simply like to point out the connection that the manufacture of sulphuric acid has with stearine candles and artificial manures, and, again, such manures with agriculture, and how these industries are connected with each other. No single one of them could be maintained for a length of time alone. The present manufacture in New Zealand of candles—I mean, of course, stearine candles—owes its existence entirely to the protective policy of Victoria. Sulphuric acid is exclusively made in Melbourne by two large firms. The existence of the candle industry being guaranteed by protection, a demand and use for this acid arises; the acid being there, the making of artificial manures becomes possible from the bones, blood, and flesh of the slaughtered cattle and sheep, otherwise useless, and from waste products of tanneries, gasworks, &c.; and these manures find their way back again into grain and cattle, &c. Such factories require skilful workers in brass, iron, copper, and lead to erect and maintain them; and superintendents with that higher education so much provided to Germany by her technological schools. A further extension of this industrial interdependence may be pointed out. One bye-product of the candle industry finds a use and a ready market in the woollen factories engaged making tweed, blankets, hosiery, &c.; taking the place of the expensive olive-oil of Gallipoli: while the fatty acids from these factories, now running to waste, ought to be reconverted into stearine fit for soap and candle making. The protected woollen and textile factories of Belgium in this way enable her to beat the world for cheap stearine candles; while the waste waters of Yorkshire factories are a source of large income to the manufacturers there. Further, as an outcome from sulphuric acid and tallow, the manufacture of glycerine might be mentioned, with its possibilities in relation to dynamite, gas-meters, paper, ink, leather, &c. The effect of such industries being encouraged is further seen when a factory like our own, but yet scarcely established, consumes coal to the extent of 150 tons per month. Looking at sulphuric acid from a merely agricultural point of view, it is impossible to overstate or exaggerate its importance in relation to the maintenance of the fertility of our grain-producing soils; a five-million loan is insignificant in comparison. Victorian protection maintains the candle industry in New Zealand. Now, sulphuric acid is a dangerous and expensive article to carry backwards or forwards on board steamers; and this is done while New Zealand has the raw material capable of manufacturing this article. Our own business is one of those peculiarly suited to this country, in so much as protection enables us to sell our goods to the consumer cheaper than even the imported article could be sold without any duty. But to establish or maintain such an industry without a protective tariff would be almost, and I believe quite, an impossibility. The article produced, I have no hesitation in saying, is as good as any imported; yet our customers are throwing it into our teeth constantly that it is colonial—a thing that ought rather to be in its favour. We have thus to throw away this duty, which is so often supposed to be taken from the pockets of the many. We have to do this regularly. We have to compete at first with the prejudice which exists in the minds of the bulk of our consumers. They think that the imported article must necessarily be better. The people who retail to them have less trouble in selling the imported article, while, as a rule, they can realize bigger profits from selling it. It is a fact that people regularly, through prejudice and force of habit, give from 1d. to 2d. per pound more for an imported candle than is, to say the least, no better than the colonial. My experience as a colonial manufacturer for the last twelve years is, that no one should attempt to manufacture any article that he is not prepared to make better and sell cheaper than the imported. If the question is asked, "How comes there a necessity for protection if the article can be produced as cheaply?" the reply may be made that, under any policy, the colonial article, no matter how good, will not command nearly the same price as the imported; and this, under a policy of free trade, taken in conjunction with human nature as it displays itself under the struggle for existence and the competition for business, means the hopeless struggle of a young community for manufacturing independence and civilization.

49. *Mr. Stevens.*] Do I understand that you wish something done in the way of encouraging or stimulating the manufacture of sulphuric acid in this colony?—Yes; I think there is nothing of greater importance.

50. It is free at present?—Yes.

51. How do you wish it done?—That I am not prepared to say.

52. Are you aware if any one is manufacturing it now?—There is no one.

53. Has it ever been tried?—I think not.

54. Have you reason to believe that the thing could be readily made in this colony?—There is no doubt about it whatever; it is largely done in Melbourne.

55. Is the manufacture of it very expensive?—The plant is very expensive.

56. For what sum do you consider a fair sort of works could be established in this colony?—Not much under £10,000, considering the abundance of the supply of sulphur in the colony.

57. Do you or do you not think that sulphuric acid could be made in the colony by an individual or by a company starting with £10,000?—I do not quite understand.

58. Do you or do you not think that an individual or a company, starting with a capital of £10,000 to manufacture sulphuric acid in the colony, could beat out the imported article, considering its dangerous character *in transitu*?—I think it possible.

59. There was, I think, a change in the duty on sperm candles last year?—Yes.

60. What has been the effect of it? Have you had an opportunity of judging?—I could not say positively, it having been in operation such a short space of time.

61. Are you aware that the principal reason alleged for putting the increased duty on sperm candles was the fact of a duty being placed on stearine?—Yes, I have been informed such was the case.

62. *Mr. Bain.*] Have you any idea of the quantity of sulphuric acid that may be fairly estimated to be consumed in the colony if we manufactured it here?—No. That will entirely depend on the amount of manures, candles, &c., made by its use.

63. What you complain of is, the prejudice that the people have against the colonially-made article?—I do not complain of it; I merely throw it out as one of the difficulties we have to contend against, and which makes our prices very much lower, and our fight with the foreigner harder.

64. Is it not a fact that your products secured a first prize at the Sydney Exhibition?—Yes.

65. Do you not think that that will assist in removing the prejudice you speak of?—No doubt; but there is not a Sydney Exhibition every day, and everybody does not get such an award.

66. *The Chairman.*] Suppose a duty were imposed on sulphuric acid in order to encourage the production of that article in the colony, would it have a very serious effect on your business?—It might, unless more than one individual established a manufactory.

67. In that case, it would place you at the mercy of the local manufacturer?—Yes. It should be noticed that the candle industry would be the greatest portion of this market, consequently would have to be well-considered.

68. It would be liable, at all events, to prove a serious blow to your business?—Provided one thing did not take place—namely, that the Government granted a monopoly to one firm—so long as there were two or three makers to buy from—there would be no danger; but in case, possibly, of there being only one manufactory, there would, to some extent, be the danger you speak of.

69. Have candles to be made from stearine?—Entirely so.

70. Where do you contemplate getting the sulphur from for the purpose of making sulphuric acid?—In New Zealand there are two sources of supply. Melbourne supplies itself largely from Home. I believe that last year they imported 450 tons into Victoria.

71. From the Mediterranean, probably?—It came from Sicily, no doubt. Here there are two sources of supply, Whale and White Islands. I have been all over Whale Island. I spent a Sunday morning there. There is a large sulphur-deposit there.

72. I suppose you know that there has been a company working at White Island for some time?—Yes. There is a company in private hands, I believe; but they are not making sulphuric acid.

73. It was formed with that object, but they met with all sorts of difficulties.—Manufacturing concerns always do.

74. But their difficulty was that the sulphur was not there. I had a long conversation on the subject the other day with a gentleman, who told me that the island was enormously over-rated. There has not been any sulphur found on it for months back; and unless there is a constant supply it is not worth while going into the thing?—True; but it is quite different on Whale Island. White Island is a factory itself, while on Whale Island there is a deposit of sulphur like a rock.

75. You state that for some time Melbourne made stearine and sent it in its prepared form to Wellington, where it was manufactured into candles; and that this manufacture was too much for the New Zealand manufacture?—I did not say that it was too much.

76. It successfully competed with you?—No.

77. Then they did not undersell you?—They never attempted it in New Zealand.

78. I understood you to say that they actually did?—No. The Victorian factory never ran it so close.

79. *Mr. Stevens.*] Do you mean Kitchen's firm?—Yes.

80. Then they did not compete successfully with your candles?—They never attempted it; but they could have done it if they had wished to.

81. Had they not all the stearine apparatus there?—Yes. I understand they brought it down and sent it back again.

82. *The Chairman.*] What I understand you to say is, that at the time there was a duty on candles, and when stearine was admitted free as an article not being included within the tariff, the Melbourne manufacturers of stearine sent that material in its prepared state to Wellington, where it was manufactured into candles and sold, and that these candles were sold at a lower price than imported candles?—Yes; and the colonial articles are sold cheaper than the imported. That can always be taken for granted.

83. At all events, that was a good thing for the consumer, was it not?—Undoubtedly.

84. And the candles were as fine—as good, if not better than the imported?—They were just as good.

85. But sold at a less price?—Yes. Still, they were the outcome of protection.

86. It was a very good thing for the New Zealand consumer, who got the benefit of somebody's loss in Victoria. You give us to understand that these candles were a loss to Victoria through over-production in the factories there?—Not necessarily a loss to the Victorian maker.

87. Well, a loss to somebody?—Not necessarily. There was the larger trade. The manufacturer may be willing to run the risk of a temporary loss, with the prospect of a future benefit.

88. The over-produce of the Victorian manufactories was sent down to New Zealand and sold for anything it would fetch?—Yes; that was done several times.

89. That must be a great advantage to the candle-consuming public?—Do you mean to the advantage of New Zealand as a country? Not if any lengthened period is taken into account.

90. The price of candles is very fluctuating?—Yes: for years past it was 11d. and 10d., and at present it is down to 9d. for imported, 8d. colonial; simply, I suppose, owing to local competition. It has never been so low as at present during the last ten years.

91. Do you not think that the prejudice against the locally-manufactured article is general, and not confined to your trade; and that it results, in a measure, from small things, such as the way in which goods are made up. I have often noticed there is apparently a difficulty in getting the colonial manufacture made up so neatly or nicely as the imported. Half the success of many imports seems to arise from the brand being well known?—That is so. The contents do not matter so very much.

92. They buy for the brand. Is it not very much the same with candles?—Yes. In England and Belgium the making-up is an important point. It is the work of girls and boys who have been trained to do it neatly. Here our boys had to acquire the training at our expense. These boys start at 10s. a week. They can now turn out three times the work they could do at first, and they do it much more neatly. We are now paying them 16s. to 18s. per week on piece-work.

93. That is a thing that will probably right itself in time?—Yes; but it takes time, and that at the very period we want to get the most favourable opinion of people. That is the very time that these difficulties try us most. By-and-by, when you become established, the opinion of people goes with you.

94. If there was no duty put on candles—if you had a fair market, and no prejudice to contend against—could you compete with the imported goods?—I could never have got established without protection, without the duty—call it what you like. I am quite prepared to sell my article at the same price as the imported. The colonial prejudice I have spoken of forces me to sell it so much lower than the imported; therefore I could not possibly stand without the duty.

95. I suppose there is a great deal in the way in which trade runs: for instance, the English manufacturer can give longer credit than you can afford to give?—Yes. Besides, candles are often used on the London market as an article to be consigned in order to finance with. Candles are not perishable, and do not depreciate. A man in want of money has only got to send in a quantity of candles, and he can get the advance on them he requires. This is a fact well known in regard to the candle business.

96. You make stearine and supply the trade?—There is no trade to supply.

97. Are there no other manufactories of candles?—Not in Dunedin.

98. There is no market, in fact, for it?—No, except as candles.

99. I do not understand that you make any definite complaint of the position of your trade at present. I mean that there is nothing which can be done by amendment of the law which would in any way further your trade?—I think not.

100. Your suggestions are mainly confined to the desirability of the establishment of sulphuric-acid works in New Zealand?—Yes; and to the maintenance of other factories. The raw material from one factory finds use by the existence of other factories. The waste from one factory can be used in another.

No. 56.

Evidence of Mr. J. KITCHEN (of Messrs. Kitchen and Sons, Candle and Soap Manufacturers, Wellington), before the Commissioners on Local Industries, at Wellington, 1st June, 1880.

MR. KITCHEN wants the candle duty to remain as it is. He has spent £17,000 on works at Adelaide Road. He wishes the duty of 2s. 6d. per hundredweight on wrapping-paper to be removed.

CEMENT.

No. 57.

Messrs. YOUNG BROS. to Mr. Commissioner A. J. Burns.

SIR,—

Westport, 31st March, 1880.

For some time we have thought it probable that the Greymouth limestones, properly treated, might yield a cement like the Portland, and hydraulic lime, two valuable products for which there is considerable use in the colonies. Good hydraulic lime—that is, a lime that sets hard under water—is largely used for concrete, &c., on harbour-works at Home, and the best is preferred to ordinary Portland cements. The lime produced by ordinary lime-burning at Greymouth is what they term “poor” for plasterers’ purposes, but, we believe, sets well under water. The limestone is very impure, containing much extraneous material; but it is of such impure limestones that the cements and hydraulic limes are made, by subjection to a higher temperature than that used in ordinary lime-burning. We do not know whether the consideration of such a question comes within the scope of the Commission of which you are a member; but, if so, the initiation of so valuable an industry could not fail to be worthy of attention. We wrote to Mr. Masters, suggesting the advisability of having the matter investigated, and mentioned that we would also suggest it to you, knowing that you would take a great interest in any step that might result in the establishment of a valuable industry. Of course, until the actual constitution of the limestones has been tested, it is impossible to say whether a marketable article can be produced; but, if production is possible, it should be the interest of Government to offer every encouragement to an industry that would supply local wants and find employment for local coal and labour. A vote sufficient to cover the expense of the analysis, and, if the analysis be favourable, of trial in small kilns, and of such tests as would be necessary to ascertain the exact facts of the matter, might be of great value to the colony. It is possible that other places in the colony might offer greater natural advantages; but the cheapness of both stone and coal at Greymouth appears to give it an advantage.

We have, &c.,

YOUNG BROS.

No. 58.

Messrs. YOUNG BROS. to Edward Masters, Esq., M.H.R. Forwarded to the Royal Commissioners on Local Industries.

SIR,—

Westport, 31st March, 1880.

We beg to suggest for your consideration the advisability of endeavouring to have the Greymouth limestones investigated and experimented on, with the view of ascertaining whether cement or hydraulic lime could not be manufactured. We conceive that it is a matter that might be fairly brought before the Native Industries Commission, and on which public money might be profitably spent. As Portland cement is used increasingly and to a large extent in the colonies, and costs, say, £6 per ton, a large margin for cost of manufacture and shipping exists, even though the cement or lime produced had to be mixed for use in much larger proportions than the Portland. Success would depend much on the chemical constitution of the stone, which appears to vary in the various strata of Greymouth limestone; but we believe that a strong lime, setting under water, has been already produced. The calcination of argillaceous limestone yields a good cement when the chemical properties and treatment in manufacturing are suitable. In view of the use of concrete in the Grey Harbour works even, the production of local cement or hydraulic lime would be important. So far as we know, the matter has never been gone into, the ordinary lime-burning being no test. It is possible that careful analysis might prove that none of the stone would yield a marketable article; but, unless this were the case, a careful series of experiments with kilns, &c., on a small scale might yield very valuable results. Merely so-called "practical" experiments would be of questionable value, as the subject is one requiring much scientific knowledge—exact constituents, temperatures, treatment, &c., being apparently requisite; therefore work should be done systematically under Dr. Hector, and not take the form of haphazard trials. It might be urged that, if it would pay, private means would have been before this employed; but the limestone occurring in such quantity, and on the property of so many different holders, prevents monopoly and makes it "everybody's business." If the manufacture is proved possible, a bonus or other encouragement might be asked for to induce its establishment, which would both provide a local product to compete with imports and help to find consumption for local coal. We shall write to Mr. Burns, who is a member of the Industrial Commission, on this subject, so that he may be able to assist should the matter come before the Commission.

We have, &c.,

YOUNG BROS.,
Civil Engineers.

No. 59.

MR. JOHN A. WHALL, Town Clerk, Greymouth, to the Chairman of the Colonial Industries Commission, Wellington.

SIR,—

Town Clerk's Office, Greymouth, 22nd June, 1880.

I have the honor, by direction of the Council of the Borough of Greymouth, respectfully to request that the Commissioners for the promotion of colonial industries will take into consideration the desirability of advising the Government of the necessity for procuring the manufacture of cement and hydraulic lime within the colony, and to state that it is the opinion of lime-burners in Greymouth and others that some of the limestones in this locality would be capable of producing cement and hydraulic lime if the process for making the same is undertaken by a practical man who understands the business of its manufacture; also, that it has been suggested that samples of the various strata of limestones from this locality should be forwarded to your Commission to have the same analyzed, with a view of ascertaining how far these opinions are correct. In accordance with instructions from the Council, I have transmitted a box containing samples of limestones procured by Mr. Godfrey, lime-burner, from the various strata of limestone which he is now using for making lime, and respecting which he states as his opinion that, if burnt in a properly-constructed kiln by a cement-burner, would make cement; also, samples of limestone from which he has made good hydraulic lime. I am further directed to state that the Council of the Borough of Greymouth would esteem it a favour if the Commissioners would take such steps as would lead to the manufacture of these cements from the limestones, which exist in inexhaustible quantities in this district.

I have, &c.,

JOHN A. WHALL,
Town Clerk.

Schedule of Samples.—1, hydraulic lime; 2, good lime; 3, good lime; 4, fair lime; 5, fair lime 6, lime liable to clinker in burning; 7, sample of No. 6, burnt.

No. 60.

MR. JOHN A. WHALL to E. Masters, Esq., M.H.R. Forwarded to the Royal Commission on Local Industries, Wellington.

SIR,—

Town Clerk's Office, Greymouth, 23rd June, 1880.

I have this day forwarded a box, addressed to you, per "Charles Edward," containing samples of limestones which I have been ordered by this Council to obtain and forward to the Commissioners for promoting local industries; also, enclosed letter for your perusal, addressed to the Commissioners. Should you think it the best course to adopt to obtain the analysis, if in time please have the letter and box delivered to the Commissioners; or, if you think it most advisable that the samples should be delivered to Dr. Hector, if not in time for the Commissioners, please do so.

I have, &c.,

JOHN A. WHALL,
Town Clerk.

No. 61.

NEW ZEALAND GEOLOGICAL SURVEY LABORATORY.

Class —.

Results of analysis of Specimen No. 2,756.

Forwarded by Royal Commissioners on Local Industries.

Locality, Greymouth.

Received, 29th June, 1880.

Reported on, 8th July, 1880.

Seven samples of calcareous rock, numbered 1-6, for analysis with the view of ascertaining their suitability for the manufacture of hydraulic cement.

The appended table gives the result of the analysis made, from which it appears that none are first-class hydraulic limestones, the prominent feature in the composition of which is that they should contain 5 to 8 per cent. of alumina. No. 2 is the most promising, but in it, as in all the rest, the proportion of free silica and silicates in the form of sand is too high to allow of its being manufactured into a reliable cement for submarine work; at the same time, as it may be of local importance, it would be quite worth while to try some experiments with it.

Experiments on a small scale will be made in the laboratory, and reported hereafter.

JAMES HECTOR.

ANALYSIS of SIX LIMESTONES from Greymouth (2,756-L), forwarded to Colonial Laboratory by Industrial Commission.

Centesimal Composition.

No.	Carbonate Lime.	Carbonate Magnesia.	Alumina.	Iron Oxides.	(d.) Siliceous Matter.	Silica, Soluble.	Water.
4	88·12	1·71	·81	Traces	8·24	·80	·32
5	78·51	1·86	1·32	·49	16·63	·82	·37
1	75·67	2·20	1·41	Traces	19·83	·61	·28
3	75·91	1·82	·72	1·11	19·61	·60	·23
2	68·12	3·54	2·22	2·71	22·01	1·08	·32
6	64·74	2·21	1·41	·57	26·22	1·84	1·01

No. 62.

Mr. W. H. TUCKER, County Clerk, Gisborne, to the Chairman of the Commission on Local Industries, Timaru.

SIR,—

Gisborne, 7th April, 1880.

I have the honor, by direction of the Chairman of this Council, to inform you that he is informed that there are within a mile of Gisborne large deposits of the materials used in the manufacture of Portland cement; and I am to ask you whether, on satisfactory proof of the same being given, you would recommend the Government to assist, by a grant of £700 to be secured on the plant, a person who would be willing to undertake the manufacture. Should the harbour of refuge, so much required on the east coast, as the recent gales and their results show, be eventually constructed here, cement of this nature produced on the spot would be so much cheaper that the cost of the work would be materially lessened.

I have, &c.,

W. H. TUCKER,
County Clerk.

No. 63.

Mr. JOHN INGRAM to the Chairman of the Local Industries Commission, Timaru.

SIR,—

Oxford, 13th April, 1880.

I take the liberty of addressing you on a subject which, I trust, may not be considered foreign to the work of the Commission. I am part-owner of a piece of property which contains a deposit of chalk. This material, if utilized in the manufacture of Portland cement, whiting, and lime, would be the means of employing a large number of unskilled labourers. Unfortunately, my partner and myself have not the means to start manufactories, and the capital required is very considerable. We thought, perhaps, that, through the recommendation of the Commission, the Government might erect manufactories to make the cement they require, thereby employing a large number of unskilled labourers, and saving a great amount of money to the country; or that they might offer a bonus, so as to induce a company to take the matter up, as the capital required is beyond the means of any private person. Should you wish to have a report on the matter, I have no doubt that Mr. Williams, C.E., late Resident Engineer at Timaru, who has considerable experience in the matter of Portland cement, would be glad to report to you on the subject, as he is now in this vicinity. I enclose Dr. Hector's report on the chalk. I may state the supply seems unlimited. I forwarded you yesterday, per rail, a small sample of it. Trusting the Commission will be able to favourably consider this subject,

I have, &c.,

JOHN INGRAM.

No. 64.

REPORT of Dr. JAMES HECTOR on CHALK found at Oxford, on the property of Messrs. Ingram and White.

2nd March, 1880.

Sample of Chalk forwarded by Mr. Alex. McKay, Geological Department.

THE samples of chalk obtained as above have more perfectly the mineral character and texture of English chalk than any previously discovered in New Zealand. The rock is pure white, fine-grained, and soft enough to be used for the manufacture of crayons. Its composition, as determined by analysis, is as follows:—

Calcic carbonate	...	...	...	...	82·26
Magnesian carbonate	...	...	...	...	1·84
Ferric peroxide	...	...	...	...	Traces
Silicates	...	...	...	...	15·69
Water	...	...	...	...	0·21
Total	...	...	...	...	100·00

Examined with the microscope, this chalk is found to be made up chiefly of minute shells of foraminifera. The chalk from which the samples were taken crops out a quarter of a mile north-east from the north bank of the Eyre River, and eight miles from Oxford, at the upper part of a low bush-clad edge or ridge. The thickness of the stratum is represented by Mr. McKay to exceed 100 feet; but its junction neither with the overlying nor underlying rocks is exposed, so that its thickness may be somewhat greater. It belongs to the Upper Cretaceous period, and is the local representative of the chalk-marl and Amuri limestone in the same formation further to the north. The overlying formation is volcanic, probably Middle Eocene, and the underlying formation is the concretionary greensand. The accessible position of the deposit, and the useful purposes to which it can be applied, render its discovery one of considerable importance to the community. The uses in which it can be profitably employed are as follows:—

1. Manufacture of crayons for use of schools, &c. For this selected samples are admirably suited, the firm, even grain and compact texture of the stone making it superior to most of the chalk imported, and of which there is a large consumption in New Zealand and the Australian Colonies. The only other source from which chalk could be derived to compete with it, so far as yet known, is the group where the natives use a chalk-deposit for carving rude and grotesque images, as lately discovered by Professor Liversedge, F.L.S.

2. As a manure to many kinds of land the chalk would be useful in its natural state, and, owing to its friable nature, could be profitably applied. Burnt into quicklime it would be useful for those soils which require a more energetic form of lime.

3. For the manufacture of whiting, which is a simple process of crushing and washing it into a fine sludge, which is collected in long troughs.

4. For mortar. The quicklime made from this chalk would probably not compete with that made from harder limestones, as it is more difficult to burn thoroughly.

5. Portland cement. This chalk should supply a very notable want in this colony. Cement is very extensively used, and on its good quality must depend to a very large extent the safety of many structures, especially in a colony liable to earthquakes. The imported cement is frequently very inferior, and in important works the sample tests that are made lead to the rejection of a certain percentage of the barrels; and it is obvious that it cannot be properly checked in this manner unless every barrel be examined. The attempts to manufacture cements hitherto from natural cement-stones have failed on account of the want of uniformity of composition; and when hydraulic or other limestones have been used in the attempt to manufacture cement, the extra cost of crushing and twice burning prevents success. The best Portland cement, whether manufactured in England or Germany, is made from chalk similar to the Oxford chalk, mixed with clay in accurate proportions, dried and then burnt almost to vitrification, and then ground to a fine powder. The success depends on the pureness and friability of the chalk and the lowness of cost at which clay can be obtained in the condition suitable for mixing into a pulp with the chalk. The convenience of this chalk-deposit to the railway, and the ease with which it can be quarried, would allow of it being delivered at a low cost; and there is a capital supply of clay to be found on the slopes of the port hills. The Malvern Hills would supply the coal; so that cement-works established about Heathcote would have every advantage in their favour.

JAMES HECTOR.

No. 65.

The CHAIRMAN, Selwyn County Council, to the Chairman of the Local Industries Commission.

SIR,—

Office of the Selwyn County Council, Christchurch, 3rd May, 1880.

Referring to your letter of the 17th ultimo, inviting suggestions for establishing new or promoting existing local industries or manufactures, I have now the honor to inform you that, the subject having been remitted to a committee of this Council for consideration, they desire to recommend to the notice of the Commission the desirability of promoting the manufacture of cement, an article which is very largely consumed, and the material for which exists in large quantities in this country. They would especially draw attention to the recent discovery of chalk in the neighbourhood of Oxford—a substance used in the manufacture of cement. The committee also draw attention to the water-power which might be obtained from several of the rivers in Canterbury, and which might be made available for manufacturing purposes at a comparatively small expense.

I have, &c.,

EDW. V. LEE,

Chairman of the County of Selwyn.

No. 66.

Evidence of Mr. W. A. EWING before Mr. Commissioner Burns, at Dunedin, 26th May, 1880. My name is *William Anderson Ewing*. I am a builder in Dunedin. I have applied for a patent for the manufacture of cement from stone found in the neighbourhood of Dunedin, which I believe is equal in quality to any cement that is imported. It would be of great service to the starting of this industry if the Commission could recommend to the Government the offering of a bonus towards this manufacture; and I think I could successfully start this industry if the Government would give me an order for, say, a hundred tons, to be delivered in such quantities as may be agreed upon—the quality to be subjected to any fair inspector appointed by Government—at the then market price of the best quality of Portland cement delivered in Dunedin.

W. A. EWING.

No. 67.

Mr. CHARLES D. IRVINE to the Royal Commission on Local Industries.

GENTLEMEN,—

Wellington, 31st May, 1880.

The large quantity of cement annually imported into this country, the growing use of the article in the formation of artificial flagging, curb and channel stones for streets, buildings, breakwaters, and pipes and sewers for drainage works, taken together with the general scarceness of stone fit for these purposes, indicate the value of a thorough investigation into the question of the desirability of affording Government encouragement, by bonus or otherwise, to the erection in the colony itself of one or more factories for the proper manufacture of this article. Wherever silica, carbonate of lime, and alumina are met with in a moderately easily-convertible form, Portland cement can be made. The manufacture differs slightly according to the varieties met with in the constituents named, but in the main consists in—1st, the thorough mechanical combination of the raw materials; 2nd, their calcination; 3rd, their reduction to fine—almost impalpable—powder by grinding.

On the Thames, white chalk is used in combination with Medway mud. In many works on the Medway grey chalk is substituted for white, and Gault clay is used instead of Medway mud. At Harwich and Stockton a local blue clay is used in combination with chalk imported from the Thames. In the North of France a natural cement-earth is found, which often contains the exact proportions of lime, silica, and alumina for the production of a high-class cement. In Somersetshire and other parts of England the blue-lias formation supplies the requisite ingredients. In Derbyshire, limestone, in combination with tufa found in the same locality, is made available. In Buckinghamshire there is a natural deposit of cement-earth immediately underneath the surface, and with it is intermingled a considerable quantity of nodular limestone. At Aberystwith, in North Wales, a nodular limestone is found which contains all the ingredients, existing in the best proportions. In India a cement is made from lime produced from sea-shells used in combination with river-mud; and at Rio de Janeiro similar raw materials are used for the same purpose. In many parts of New Zealand nodular limestones with marly and blue clays are found in juxtaposition, which afford all the raw materials necessary for the production of the very highest class of Portland cement; and I am of opinion that, were Government to erect a proper manufactory, or assist private enterprise to do so, it would very soon be demonstrated that the best class of Portland cement could be manufactured in the colony at a cost considerably under what the article can be imported for. At present the Harbour Board are contemplating the erection of a breakwater at New Plymouth roadstead, to be built of cement concrete at a cost of £200,000; and, as the price of the cement to be used in the work comes to about one-half of the cost of the whole finished work, the sum of £100,000, were the cement manufactured in the locality, would be expended in wages instead of being paid away for the imported article; and, provided that an equally good cement can be manufactured on the ground at the same price as the imported article, no loss to the colony would ensue. Within a few miles of New Plymouth, nodular limestone and blue clays are found which are capable of yielding a Portland cement equal to the best imported article. Dr. Hector was the first to point out the existence of this peculiar formation and the use that the materials may be turned to; and I myself made several experiments of a tentative nature with this nodular limestone, in order to test its fitness for use in the proposed breakwater at New Plymouth. I have no hesitation in saying that a first-class cement can be manufactured in that locality at a figure or cost appreciably under what equally good cement can be imported for. The machinery required to start the manufactory would be something as follows:—

Two properly-constructed limekilns, say	...	...	...	...	£300
Stone-crushing machine and engine	...	...	...	...	700
Grinding-mill	...	...	...	...	500
Tools, &c.,	...	...	...	...	100
Sheds and buildings	...	...	...	...	2,000
					£3,600

From £2,500 to £3,000 would be sufficient outlay to start the undertaking in fair working order, for the local works, and by that expenditure a thorough test and trial as to the paying result could be arrived at without any possibility of doubt. Of course, I assume that the management would be placed under a properly-qualified scientific head. If Dr. Hector could be induced to take the subject up, I believe a great part of the difficulty as to the treatment of the raw materials would be simplified, inasmuch as the chemical analysis of the various stones and clays would be a guide to determine their admixture in proper proportions. A return, also, of the quantity of cement imported into New Zealand each year for the last ten years would be instructive.

I have, &c.,
CHAS. D. IRVINE,

I may point out that a saving, as against the imported cement, could be effected by the use of common sacks instead of wooden barrels to put the cement into for short transport to neighbouring parts of the colony. Each cask is an item in the cost of the cement, and considerably adds to the space in transport as well. The cost per barrel for imported cement ranges from 15s. to 21s.

COACH-BUILDING TRADE.

No. 68.

Mr. J. ROBIN, Carriage-manufacturer, to the Chairman of the Commission on Local Industries.

SIR,—

Dunedin, 7th April, 1880.

A. J. Burns, Esq., one of the Commissioners on Local Industries, has addressed me a circular for the purpose of eliciting information that might be beneficial in promoting or establishing new industries in our midst. Would you, therefore, kindly permit me to say that, in my opinion, the time has gone by when the Government could materially assist in establishing an industrial population in our midst. When the public works scheme and immigration policy were first introduced, and money borrowed to inaugurate public works and provide men to carry out that scheme, the Government introducing it, and each successive Government—Tory and Whig, Liberal and Conservative, squatter and anti-squatter—with terrible consistency, or, rather, persistency, while introducing men to make rolling-stock, &c., have deliberately, to an alarming extent, imported that stock ready-made, and allowed the men, induced to leave their homes by the representations of our authorized agents, to starve or find work with private employers. I am loth to attribute unworthy motives to any one, but can come to no other conclusion than that some one, be he who or what he may, had some axe to grind in the way of commission out of that imported stock that would not have accrued out of the home-made article; and I am now extremely sorry to say that I can offer no suggestions except that, at some far future date, when the Government require more locomotive carriages, &c., they call for tenders in the local market, giving sufficient time and opportunity for tenderers in the first instance to fulfil their engagements; and I have no hesitation in saying that, as far as the manufacture of carriages is concerned, the colonial-made article would bear about the same comparison as Mosgiel does to the Home-made cloth. When the history of New Zealand, and the public works and immigration schemes, comes to be written, shame and ignominy shall rest on the heads of those who have mismanaged our affairs, and have allowed the opportunity to pass of establishing industries that would have for ever benefited the land of our adoption, which they so profess to love.

I have, &c.,

J. ROBIN.

No. 69.

Messrs. SINCLAIR and MORTON, Coach-builders, to the Members of the Royal Commission on Native Industries.

GENTLEMEN,—

Dunedin, 10th May, 1880.

In accordance with an invitation forwarded to our firm by Mr. George Grant, Secretary to the Dunedin National Industrial Association, we now beg to offer for the consideration of the Royal Commission on Native Industries a few suggestions connected with our trade, which we trust will receive their favourable attention.

So far as we are aware, no encouragement or opportunity has been afforded to our trade by the New Zealand Government for the construction and supply within the colony of locally-built railway carriages. We are thoroughly convinced that, had such been given, it would have proved conclusively, not only that all the railway-carriages required in the colony could have been constructed here, but that this could have been done at a price not exceeding that paid for imported carriages, and that, as regards careful construction, finish, and durability, those so manufactured in New Zealand would bear favourable comparison with those imported from Great Britain and America. In proof of this we may be allowed to mention that our firm was recently invited by Mr. David Proudfoot to construct for the Dunedin Tramway Company a car similar to those imported and now running on the line. The contract was accepted by us, and this test-car duly completed and delivered by us. After being fully tested, it has been admitted by Mr. Proudfoot and the public to be in every respect equal, if not superior, to those imported; that, in fact, it was placed upon the line in better condition and at a less cost than they were. We can have, therefore, no reason to doubt that what has been done, and done so successfully, in constructing tram-cars can without difficulty be effected with carriages of all descriptions for our New Zealand railways. What we would now desire very respectfully but very earnestly to urge on the attention of the Royal Commission and the Government is, that when railway carriages, trucks, or wagons of any description are required in the colony, tenders be invited for their construction and supply within the colony; and, in order to afford every facility to local manufacturers, that an approved pattern should be provided and the cost thereof furnished, such cost to include all charges and expenses, such as packing, freight, insurance, refitting, and delivery—in fact, its cost to the Government when placed upon the rails approved and ready for work. This information there could be no difficulty in supplying, and it would prove highly valuable in guiding our colonial builders. Were some such recommendation as we have ventured to give adopted, we are persuaded that in a comparatively short time the necessity to go beyond the colony for railway-carriages and other plant would be entirely avoided, that an important industry would be greatly strengthened and increased, that a very considerable number of intelligent and desirable workmen would be employed, and all this not only without loss or sacrifice to the colony, but to its manifest profit and advantage, seeing that the very large amounts now (we submit most injuriously and unnecessarily) sent out of the country would be retained within it, and employed in the encouragement and employment of large bodies of our fellow-citizens, and in the growth and prosperity of our native industries. We are quite prepared,

when and if required, to furnish to the Commission full details as to the various points embraced in our present suggestion, but we trust it is sufficiently reasonable and self-evident to induce the Commissioners, after full consideration and inquiry, to embody in their report a recommendation to the Government for its adoption.

We would further take the liberty of submitting to the Commission another recommendation bearing somewhat upon the requirements of our trade—and it is that the Government should adopt some measures, with as little delay as possible, to plant upon some parts of its reserves, and especially along the railway-lines, such trees as hickory, ash, oak, &c., all indispensable in the manufacture of carriages, and in all work where lightness, strength, and durability are required. We do this with the greater confidence, believing that in the course of a few years such a measure, if properly inaugurated and encouraged, would prove one of the most profitable sources of income in the colony—more so as very little expenditure would be necessary, and as the ground so to be employed, or much of it, is at present of no value for other purposes, being barren and stony; which, however, renders it all the more suitable for the growth of the toughest timber, it being an established fact that this is procured from land of that character.

In conclusion, allow us to express the hope that the time is not far distant when the Government of New Zealand will consider it a matter of paramount importance and the foundation of true national prosperity to adopt every means whereby its revenues can, as far as possible, be expended and employed within its own borders, so far as this can be done without the sacrifice of price or quality.

We have, &c.,

SINCLAIR AND MORTON,
Coach-builders, King-street, Dunedin.

No. 70.

Evidence of Messrs. SINCLAIR and MORTON before the Commissioners on Local Industries, at Dunedin, 18th May, 1880.

101. *The Chairman.*] Do you wish to make a statement in addition to your written one?—There is one matter I would allude to. It is in reference to hickory spokes. We should like to have them duty-free. No one in this colony is prepared to manufacture them. It was intended, when the last modification of the tariff took place, that the duty on them should be struck off—in fact, the mover of the motion intended that it should be so; but the Customs authorities have decided differently, and we still pay duty for them.

102. Have you anything further to add? We will give full consideration to anything in your notes which will form part of the evidence?—I thought that if any questions arose on our statement, I should be only too happy to answer them. The principal ground that we take up is that we think that the time has arrived when railway-carriages, and most of the rolling-stock on our railways, should be built in the colony. In our statement I have endeavoured to show that we have successfully completed tram-cars, at even a less cost than the imported ones, and that ours is admitted to be the better article. If we can do that, I maintain that we are in a position to build railway-carriages also. If the carriages were built here, it would be the means of causing a large employment of labour, and of keeping a great deal of money in the colony—money that would be regularly circulated through the hands of various tradespeople. In fact, I am fully prepared to make them, under the conditions stipulated in my memorandum. So far as the tariff is concerned, we are quite satisfied with it, with the exception I have named. We find no difficulty in competing with the imported carriages on legitimate ground—that are imported and sold at a profit. In the past we have experienced a difficulty with American manufacturers. They made more goods than they could find a market for in their own country; the surplusage they sent out to this country, and sold it at an immense sacrifice; which for a long time damaged our business. Now we have the 15 per cent. duty, and get in our materials free, I would indorse the recommendation of Mr. Reid. There is no native timber to take the place of hardwood, and it is a wood that carriage-builders use. I may mention that, in the concluding part of our recommendation, we make the suggestion that it would be desirable for the Government to plant upon their reserves, as far as possible, such trees as hickory, ash, oak, &c., and timbers of that description. The hardiest of those timbers grow in the stoniest and most barren places. Such plantations would, in a short time, be the means of bringing in a considerable revenue; and the cost of planting would not be much. Men out of employment might be made use of in that way.

103. *Mr. Stevens.*] Do you consider that the 15 per cent. duty is “protective”?—Yes; it is sufficiently protective for all purposes.

104. Taken in conjunction with the relief given last year to your trade in taking off the duty on most of the raw materials you use?—Yes. We are perfectly satisfied with the tariff as it now stands, with the exception of one thing, which I have pointed out.

105. About railway carriages: you say here, “So far as we are aware, no encouragement or opportunity has been offered to our trade by the New Zealand Government for the construction and supply within the colony of locally-built railway-carriages.” Have there been no tenders invited for the construction of railway-carriages?—Not so far as I am aware. An order was given to one firm in Dunedin to build one carriage; but, as you can readily believe, that is no fair test or trial at all. The price for which he would build one carriage would be different if the order were to build twenty.

106. Are you not aware, or have you not heard, of an instance of tenders being advertised for the construction of carriages?—Not so far as I am aware. I have never seen anything of the kind myself. I may point out to the Commissioners the fact that Mr. David Proudfoot, of this city, has taken the initiative. He has called for tenders for the construction of four motors for the tram-line. I am perfectly convinced that he will get tenders for their construction for less than they would cost him at Home. I am quite certain that the price will be even less than the imported.

107. *Mr. Bain.*] In proposing to have the railway-carriages made here, do you mean to make the whole of the carriage—ironwork as well, or do you mean to import the ironwork?—The recommendation which I have proposed is this: If the Government at any future time should require railway-car-

riages, they should have a carriage and place it before the tenderers, who should be invited to tender for a certain number of that description, first- or second-class, as the case may be. They should supply the tenderers with the total cost of that carriage as placed on the rails—with everything connected with it complete—all charges and expenses, as packing, freight, &c., added. In that case I am perfectly certain that the carriages would be tendered for in the colony at a less price than they could be imported for.

108. The ironwork to be built in the colony, as well as the woodwork?—It does not necessarily follow. With the imported carriage the charges are considerable—freight and insurance cost a good deal. In addition, we could place a carriage on the rails in better condition, because, as you know, the imported carriage must get knocked about in transit.

109. Do you think that native timber, if used, would be quite suitable?—In certain parts it would, but not for the whole. For certain other parts, however, hickory and ash must be used. In certain parts we would use kauri and pine.

C O A L.

No. 71.

Mr. ANDREW POLLOCK to Mr. George Grant, Secretary of the National Industrial Association of Dunedin.

SIR,—

Green Island, 29th March, 1880.

Referring to your notification that the Commission on Native Industries intend visiting Dunedin at an early date, I beg respectfully to submit to the Commission the great desirability of the Government encouraging the prospecting of coal in a more systematic manner than now exists. At present only the outcrops, laid bare by the elements, are worked. In the Kaikori Valley, in many parts of the Taieri Plain, and other places contiguous to the main south railway-line, I am confident, if bored the necessary depth, there would be found valuable seams of coal, which, from want of capital and enterprise, are now lying dormant, manufacturers and others being compelled to send to other colonies for a better article than is now produced in the Colony of New Zealand. For instance, in prospecting recently in Preservation Inlet, I found a superior specimen of coal underneath the seam from which I had taken a cargo of coal to Dunedin, and traced the seam to some distance beneath the water; from which I concluded, if gone into to a good depth, an article would be found which would drive foreign coal out of the colonial market. It is far from creditable that nearly £250,000 go out of the colony annually for an article the equal of which could be found in the colony if the Government were to give sufficient encouragement for its development. Having been extensively engaged developing our coal resources for the last eighteen years, I know well that we are only groping on the surface; therefore I shall be glad to appear before the Commission, and give verbal evidence in these matters.

I have, &c.,

ANDREW POLLOCK.

No. 72.

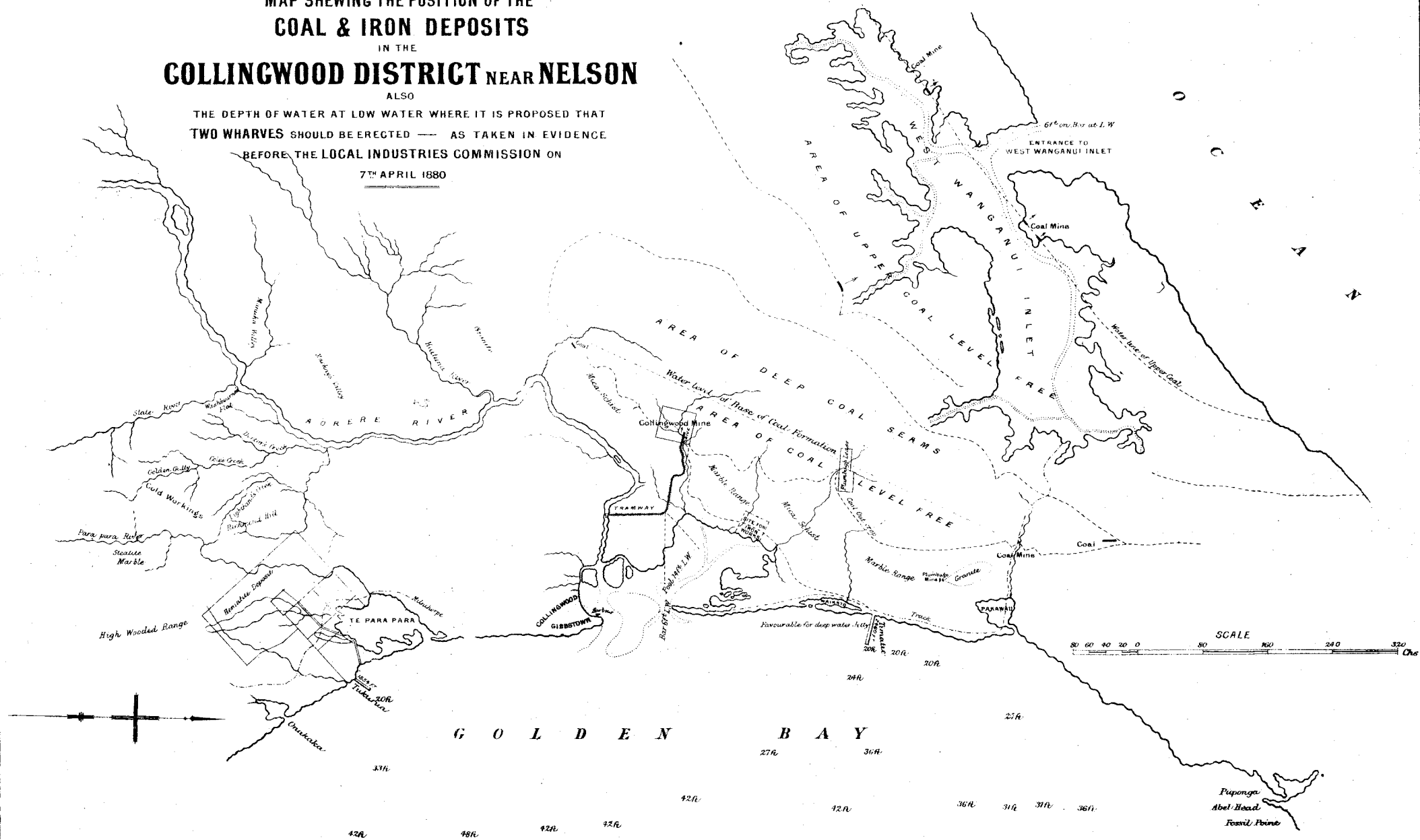
Evidence of Mr. JOHN MARSHALL, taken by Mr. Commissioner A. J. Burns at Collingwood, 7th April, 1880.

My name is *John Marshall*. I have been connected with coal-mining forty-two years: out of this I have been thirteen years coal-mining in New Zealand and six years in Newcastle, N.S.W. I have been connected with and managing the Collingwood coal mine for ten years. The coal-seams in this district are from 2 feet 6 inches to 3 feet in thickness. The coal is bituminous and of good quality. At present I pay from 8s. to 10s. per ton for delivery of the coal at the mine-mouth, and 1s. per ton delivered alongside the ship on the jetty at Ferntown. I have only two men employed at present; therefore can only average two tons per day output delivered on the wharf. I can sell it readily at 20s. per ton, and cannot supply the demand, as I am hampered from want of labour and capital. A very small sum—say £1,400—would enable me to fully develop the mine and turn out 150 tons per day on the wharf; although £200 would enable me to put out 30 tons per day on to the wharf. But to fully develop the coal trade it would be necessary to erect a properly-constructed wharf at Timatie Point, where 20 feet can be obtained at low water. This wharf would require to run out about 1,200 feet from high-water mark; but any large ship could then load coal at any state of the tide. Besides this wharf about three miles of tramway would require to be constructed as an extension of the present tramway; but, as the ground is nearly level, this tramway would not be very expensive to erect, particularly as timber is plentiful in the near neighbourhood; and, as there is an unlimited supply of good timber for sawing, this wharf could be profitably used for its shipment. Besides, there are other coal seams at Pakawau that, when worked, would be shipped from this wharf, as the wharf would be about half-way between the two coal-seams. The Pakawau coal is of the same quality as the coal I am now working, and could be easily and cheaply developed, as it crops out near to high-water mark. I am of opinion that if this wharf was built all the steamers running on the coast would call here for coal, as it would only take them about ten miles out of their direct course; but, by having a deep-water wharf to enable large ships to load, coal could be delivered in Nelson or Wellington very much cheaper than at present—say, 22s. to 25s. per ton. This would equally apply to steam-colliers carrying large cargoes. I have no fear of not having a quick and ready sale for every ton of coal that could be produced in this district, if the wharf and tramway were constructed into deep water. It would be a great boon to the coal industry of this district if the Commissioners could recommend the construction of this wharf and tramway. I think capital would be found to develop the mines once it was understood that these works would be constructed,

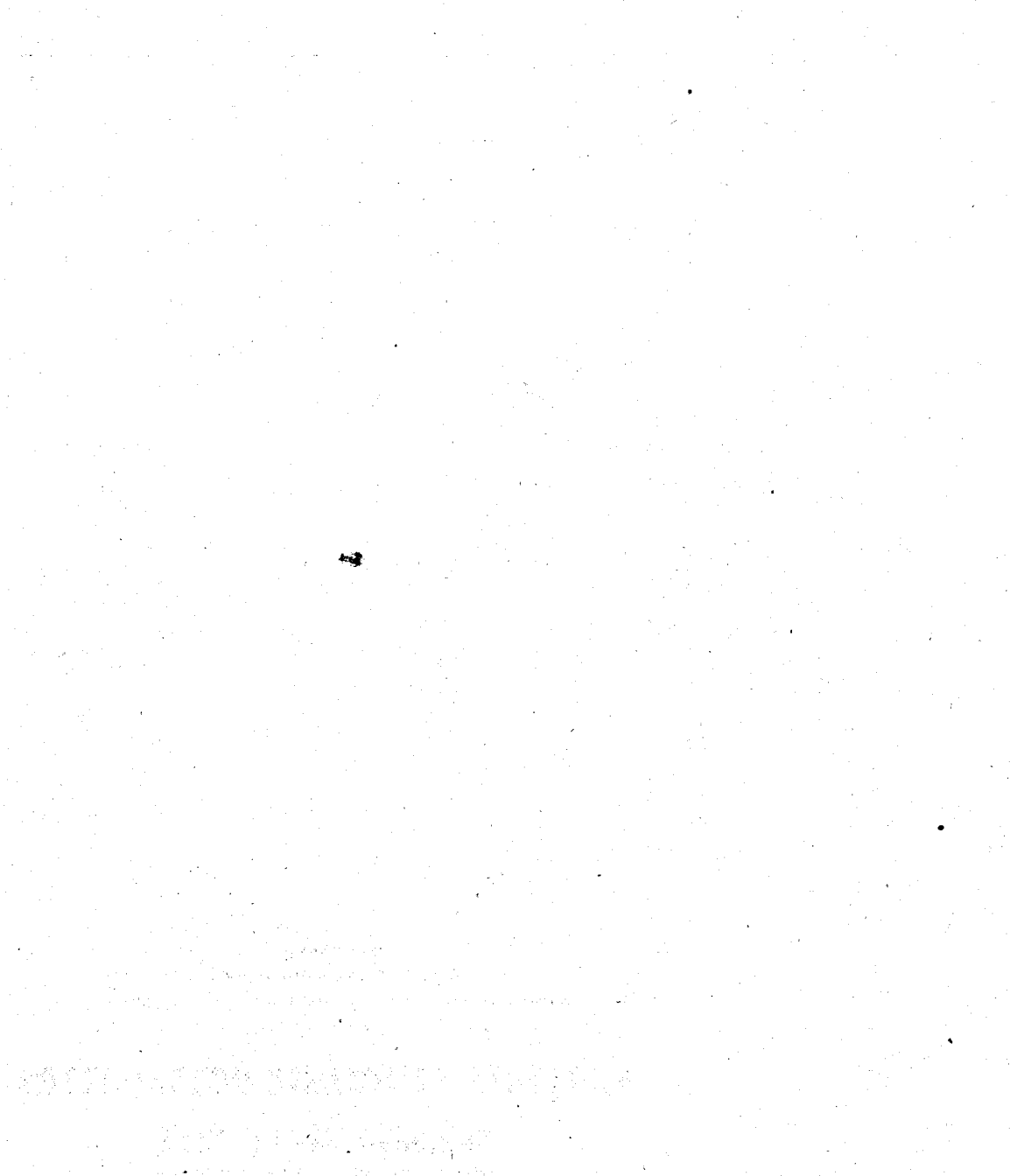
JOHN MARSHALL.

MAP SHEWING THE POSITION OF THE
COAL & IRON DEPOSITS
 IN THE
COLLINGWOOD DISTRICT NEAR NELSON

ALSO
 THE DEPTH OF WATER AT LOW WATER WHERE IT IS PROPOSED THAT
TWO WHARVES SHOULD BE ERECTED — AS TAKEN IN EVIDENCE
 BEFORE THE LOCAL INDUSTRIES COMMISSION ON
 7TH APRIL 1880



Drawn by F.W. Flanagan



No. 73.

Mr. R. JOHNSON, Secretary, Marine Department, Wellington, to the Chairman of the Local Industries Commission.

SIR,—

Wellington, 7th June, 1880.

Referring to my letter to you of the 26th April last, I have now the honor to forward herewith copy of a letter with plans, giving the distance from high-water mark at which 20 feet of water can be obtained near the Parapara River and Timatie Point, Golden Bay.

I have, &c.,
R. JOHNSON,
Secretary.

Mr. W. WILLIAMS to the Secretary, Marine Department, Wellington.

SIR,—

Collingwood, 29th May, 1880.

I have carefully taken soundings as you requested me. I cannot find 20 feet of water at low water, spring tides, on either side of the Parapara in less than about 800 yards from high-water mark, ordinary tides, until I come to the point at Tuhurua (*see* pencil-mark on plan). At that spot it is 518 yards or thereabouts from high-water mark, ordinary tides, to 20 feet of water, low water, spring tides. I have also sounded off Timatie, and the only place that 20 feet of water can be obtained in any distance less than half a mile from high-water mark, ordinary tides, to 20 feet of water, spring tides, is opposite sections 9 and 10 (*see* pencil-mark on plan). At that spot the distance is 820 yards or thereabouts from high-water mark, ordinary tides, to 20 feet of water, low water, spring tides.

I have, &c.,
W. WILLIAMS.

No. 74.

Evidence of Mr. JAMES FOOTE before Messrs. Commissioners Tinne and Burns, at Auckland, 3rd May, 1880.

MY name is *James Foote*. I have been in Auckland since 1866. I have had serious losses through the Native disturbances in this Island. I put in a claim for £1,000 compensation, but it was not granted; but the then Government, of which Sir Donald McLean was a member, promised to help me in any way possible. I then purchased 1,750 acres of land in the lower Waikato. The bulk of this land contains a 52-foot seam of coal. Mr. Cox and Mr. Denniston, of the Geological Department, visited my mine, and reported that I should require a canal cut, 27 chains long, 15 feet wide, and 3 feet deep, in order to give me an outlet for my coal and iron to the river; but the Government or the Parliament would not grant me any assistance. I have cut this canal and put down a line of rails and a lot of fencing, at a cost of £350. I then put on five men and several barges, and cleared the river of an obstruction of 256 piles that had been put in by the Maoris. This work cost me £100. After I had done this I applied to Sir George Grey for assistance. He gave me £40, which, I supposed, came out of his own pocket. After this I put a dam across the river for the purpose of raising the water of the river to give a higher level in my canal. This cost me £103 10s. I applied for a siding at the Mercer Railway-station, but was informed they had only £20 available for this work; therefore I had to spend £20 before I got the siding finished. I now require a double line of tramway, about a mile long, to connect the mine with deep water of the river; I have repeatedly applied to Government to construct this for me, but as yet I have been unable to get any reply. I was informed by an officer of the Government that some £4,000 was voted by the House for the purpose of assisting local efforts. The great bulk of this money had been sent down among enterprising men in the South. There was some £400 still left, and he would see that I got some assistance out of that amount; but, to this day, I have not had a farthing except the £40 from Sir George Grey. Dr. Hector promised to assist me, at the same time requesting a box of mineral specimens to be sent to him. I sent the specimens, but as yet have had no assistance. Whilst this line of tramway would very materially benefit my mine, it would also benefit every settler in this district, as they have no access of any sort at present to get to market. It would also open up over 5,000 acres of splendid land, belonging to the Crown, for settlement—perhaps as good land as is in the Auckland District. There is a large quantity of iron ore and limestone in this district that is completely shut out from working for the want of roads or railways being constructed.

JAMES FOOTE.

No. 75.

Mr. GEORGE PERRY to D. H. McKenzie, Esq.

SIR,—

Auckland, 24th February, 1880.

In compliance with your request, I yesterday visited Mr. Foote's mine at Miranda, and beg leave to submit the following report concerning the said mine for your consideration:—

1. The mine is located on the side of a flat plain at the side of a hill, and distant about a quarter of a mile from the river. A small tramway at present connects the mine with the river. The shaft is down about 60 feet, and I believe the seam is 52 feet in thickness: at least, Mr. Foote told me so, and, judging from appearance, I should think his statement was correct. Of course I cannot speak as to the quality, but in reference to quantity I have only to state that I have never seen any coal-seam which could compare with it. I would suggest that, in the event of a company being formed for the purpose of working the mine, a permanent tramway should be constructed in place of the insufficient tramway at present used by Mr. Foote. I have been informed that the coal does not coke well; but I believe it will improve in that respect as it is worked down upon.

2. In reference to iron ores, the following exist upon the property, namely: Hematite with clay bands attached, Blue Flats iron ore, Gubbins-stone ore, and diamond-stone ore. The hematite is of a very hard nature and is from 8 to 10 inches in thickness, and appears likely to be very abundant; this ore is principally used for Bessemer steel, and also for puddling purposes. Blue Flats ore appears

rich, and is of a softer nature than the hematite; it exists in masses on the surface, and appears abundant; it is chiefly used for the manufacture of boiler-plates, fencing-wire, &c. Gubbins stone: I believe this ore to be equal to any of the same description found in Staffordshire; it exists in masses similar to the Blue Flats ore, and appears abundant; it is chiefly used for galvanized iron, and also for the manufacture of vessels which require tin coating. The diamond ore crops up from the surface in large lumps; the mountain on Mr. Foote's land appears to contain a great quantity of it; it is chiefly used for the manufacture of chains, wire nails, hoop-iron, &c. These iron ores exist within the radius of a mile, as also limestone, fireclay, and water, together with clay for stock-brick in great abundance. It will be observed that Mr. Foote's property contains the whole of the ores, &c., necessary for the manufacture of steel and iron. With all due deference to the opinions of Mr. R. B. Dennison and Dr. Hector, I believe that the ores, when worked, will prove much richer than those gentlemen imagine them to be.

3. In order to work the iron ores it will be necessary to construct a blast-furnace, which must be of modern construction. This furnace, if well managed, would turn out 200 tons per week. The puddling-furnace, steam-hammer, forge-train, mill-train of rolls, engine and mill furnaces, &c., must all be of the latest modern construction. By observing this rule the company would effect a great saving in labour, fuel, &c. I must not omit to mention the plant necessary for the manufacture of chain-iron, nails, screws, bolts, axles, buffers, and fish-plates. Chain-iron, 1½-inch thickness, is worth in the Sydney market about £30 per ton, and I venture to state that it can be manufactured here at a cost of £8 10s. per ton. I estimate the amount required for working the coal mine and manufacturing iron from the ore at £10,000. This amount would include the permanent plant required for the above-mentioned purposes.

The most modern way of manufacturing pig-iron from ore is by smelting it with charcoal and powdered coal, which costs a little more, but makes it more saleable for particular purposes.

I have, &c.,

GEORGE PERRY,

Late Manager of the following works: Horsleyfield, Wolverhampton, Staffordshire (tin, wire, hoop, and plate works); Cramond's Works, Sheffield (armour-plate, gun-iron, Bessemer steel, &c.); White Cross Wireworks, Warrington, near Liverpool (for making wire only); Robert Heath, Staffordshire Potteries (for making merchant-iron and boiler-plate); West Strand Ironworks, Preston (for making small guide-iron, large rails, &c.).

No. 76.

Evidence of Mr. THOMAS P. MOODIE, General Manager, Bay of Islands Coal Company, before Messrs. Commissioners Tinne and Burns, at the Kawakawa Coal Mine, 4th May, 1880.

MY name is *Thomas P. Moodie*. I am general manager to the Bay of Islands Coal Company; I have been holding this position for the last eighteen months. The Company employ about 120 hands. The lowest wages paid for boys is 4s. per day; for men, 7s. per day—of eight hours. A good miner can earn, at piece-work, from 10s. to 12s. per day. We have a very orderly lot of men engaged on the works just now; they are very steady and industrious. We average 180 tons per day output; if we had more rolling-stock, a very much greater quantity could be turned out and sold, as the demand is far in excess of the supply. When the railway works now in progress are finished, much more coal can be turned out and at a much less cost to the Company. The present railway from the mine to the place where we load the barges has been constructed with very heavy curves. In my opinion, many of these curves were quite unnecessary. They have added greatly to the original cost of the line, are very severe on the rolling-stock, and greatly increase the cost of maintenance, which this Company has to pay for. Very shortly, the permanent way will require to be relaid. The cost of maintenance and the want of the railway being carried to deep water have been very detrimental towards the Company's success and to the payment of a dividend to the shareholders. Very great and unnecessary delay has taken place in the survey of this line, which should have been now working instead of only being in course of construction; but I consider the survey now adopted to be the best line that could be obtained through the country it has to pass. Looking at the difficulties that this Company has had to contend against, I consider that this field has been worked to greater advantage to the public of Auckland than to the shareholders: in fact, looking at it from a shareholder's point of view, it would have been greatly to their advantage had the field been closed years ago. But, when the increased facilities for a larger and cheaper output are given to the Company, I think the shareholders will benefit by their speculation. Our only requirements are, the railway now being constructed, and some of the worst curves to be taken out of the line now working. The sooner these works are finished, the better for the colony; as it will be the means of assisting to supply our own market, instead of importing large quantities from New South Wales. As soon as we are able to supply our own wants, then will be the time to impose a duty upon imported coal. The profits derived by middlemen from the sale of imported coal are so great as to make it worth their while to put all the opposition possible in the way of using local coal. I am well aware that better coal can be produced from the New Zealand coal fields than from any other country in the world. I have had large experience in the New South Wales and other foreign coal fields, and can therefore speak from experience as a mine-manager in various countries.

THOMAS PEARSON MOODIE,

General Manager, Bay of Islands Coal Company.

No. 77.

Evidence of Mr. JOSIAH C. FIRTH before Mr. Commissioner A. J. Burns, at Auckland, 14th May, 1880.

My name is *Josiah C. Firth*. I am one of the directors of the Bay of Islands Coal-mining Company (Limited). It appears to me, as a large shareholder in coal undertakings, and as a person well acquainted with the difficulties attending upon coal enterprises in this colony, that the present system of royalties levied by the Government at certain fixed rates per ton on the output of coal mines leased at various times by Government, is open to grave objection on various grounds—viz.: First, the difficulties attending upon the establishment of coal-mining in a colony such as this, where skilled colliery-labour is very costly and only available to a limited extent; second, because mechanical appliances in a country where the mining enterprise is in its infancy are always costly and often inefficient; third, because of the novel conditions under which coal-beds have been deposited, rendering the experience gained in older coal districts only partially available. For these reasons, amongst others, coal enterprises in the Colony of New Zealand have not hitherto been profitable to their promoters, but, on the contrary, have often involved loss to their shareholders. In point of fact, every coal enterprise in this colony has had to struggle under difficulties incidental to the aforementioned conditions; and it is a fact that hardly one of these undertakings is yet in a position to pay regular dividends, even on the most moderate scale. Under the conditions now detailed, the colony has notwithstanding derived, and is now deriving, very substantial advantages by means of the coal raised within the colony; whilst the advantages to the shareholders have been practically *nil*. Looking at the struggling position of nearly every one of the coal mines, it appears to me that a very sensible measure of relief and encouragement may be offered to the shareholders in coal enterprises, by a very simple but effective alteration in the mode of levying the rents and royalties. Under the present system, as already stated, the royalty is levied at a fixed sum per ton. This fixed royalty has been found to be a very heavy burden on, and a great discouragement to, the various coal mines of the colony; for it will be readily understood that, when a mine has been struggling under difficulties which have prevented the payment of a shilling of dividend for years, the exaction of a fixed sum per ton as royalty is very likely to be the “last straw that breaks the camel’s back.” As a matter of course, unless coal mines are profitable to their shareholders, they will not be continued. Naturally, it cannot be the object of the Government to strangle such an important industry as coal-mining by rigidly adhering to a system of levying royalties—well enough in older countries, where mining deposits are well ascertained, skilled labour abundant, and mechanical appliances of well-ascertained efficiency abundantly available. By such a rigid adherence we may expect many coal-mining enterprises to be destroyed. It appears to me, after a very full and careful consideration of the whole matter, that a change in the mode of levying these royalties may be advantageously made in the interest of all parties. The change I recommend is this: that, instead of a fixed sum as royalty, a percentage—say 10 per cent.—of the annual profits divided amongst shareholders be paid half-yearly or yearly to the Government in lieu thereof. Under this proposal, when the shareholders derive no profits Government would receive no advantage beyond the taxation paid by the companies and their employés. Nor would the companies run so great a risk of being driven into liquidation; the position being that, if the shareholders got nothing, the Government got nothing beyond the taxation already alluded to. On the other hand, when the companies were prosperous and the shareholders in receipt of substantial dividends, Government would receive a very handsome rental for the mines; and in times of great prosperity, when dividends became larger, Government would receive such an accession of moneys as would probably show a better average on a term of years than under the system of fixed royalties at present in force.

J. C. FIRTH,

(for the Directors, Bay of Islands Coal Company,
Bay of Islands.)

No. 78.

Evidence of a DEPUTATION from the DIRECTORS of the WALTON PARK COAL COMPANY before the Commissioners on Local Industries, at Dunedin, 17th May, 1880.

MR. E. B. CARGILL intimated that he, as chairman, and the two gentlemen who accompanied him, as directors, of the Walton Park Coal Company, waited on the Commissioners in reference to a matter that had excited some interest and attention. It was in reference to using, as far as possible, local coal on the different railways. Some time ago tenders were called for for the supply of local coal to the railways in the neighbourhood of Dunedin, and, amongst others, the Walton Park Company tendered to supply their coals. This is a lignite of a very superior character, produced in the immediate neighbourhood of Dunedin. The Company’s tender was accepted at a very low price. But they found that the railway authorities took none of their coals, except a small quantity for use in the workshops. They had an interview with the heads of department, who told them that they did not think of using the coal for railway purposes. The Company then asked that their coals should be given a fair trial, and that they should be represented at the trial. They obtained comparative trials of Walton Park, Shag Point, Malvern Hills, and Bay of Islands coals. The first of these trials was over the most difficult portion of the line, between Dunedin and Palmerston; and the Company were represented on that occasion by Mr. Petre, mechanical engineer, who was entitled to be considered an authority on the subject, and Mr. Wilson, formerly of the Otago Foundry, an old practical engineer. It transpired that the result of the trial was in every way satisfactory: while there was comparatively a much larger quantity consumed than of Newcastle or Shag Point, its capacity for keeping up steam was well established in the American engine in which it was tried. The extra quantity was not so great as to cause inconvenience, while its cost was 25 per cent. less than any coal used on the railway. The directors next had an interview with Mr. Conyers on the subject, when they were surprised to learn that, though their report stated that their coals were well adapted for the purpose, the railway

report was on very different terms—that the coals could not be used for railway purposes. Some correspondence had ensued since then, and Mr. Conyers had promised that he would order the use of the Company's coals as far as was practicable. What the directors were there to complain of was the dull, determined opposition of some understrappers and employes of the Railway Department. The drivers, possibly, did not understand how to use the coals; probably they would not understand, because the coals caused them a little more trouble in firing. But the result of the trials proved not only the capability of the coals, but served to demonstrate that their use would be a very considerable saving. They conceived that the action of the railway people was a complete foil to the intention of the Legislature and the Company, and a great detriment to the public interest. The Company did not want their coals used unless they could be used advantageously; but they contended that not only could they be so used, but at a saving on cost of 25 per cent., as was shown by the report to which he referred. The objections made to this coal were, that there was about an extra ton of coal put into the fires during the eight hours' work. At the trial made under the superintendence of Mr. Armstrong, the Company offered to supply a fireman to show how it should be used, but the offer was declined. The trial was, however, done in all fairness by Mr. Armstrong with his own fireman. He (Mr. Cargill) understood that a similar coal to Walton Park was at the present time used on the Canterbury Plains Railways. There was there the same opposition; but Mr. Smith, who was in charge of the locomotive department there, simply said it must be used; and it was, all opposition ceasing. He (Mr. Cargill) had every reason to believe that the Walton Park coal, which could not be used, was even better than the Malvern Hills. All that stood in the way of the use of the Company's coal here was the determination of the drivers and employes, who did not like anything that was new.

No. 79.

Mr. H. B. McINTOSH, Secretary, Walton Park Coal Company, to the Chairman of the Local Industries Commission.

SIR,—

Dunedin, 19th May, 1880.

Instructed by the chairman of the Walton Park Coal Company, I herewith enclose copy of all correspondence and reports in relation to the use of Walton Park coal for locomotive purposes.

I have, &c.,

H. B. McINTOSH,
Secretary.

The COMMISSIONER of RAILWAYS, Middle Island, to Secretary, Walton Park Coal Company.

Office of Commissioner of Railways, Middle Island,
Christchurch, 9th January, 1880.

SIR,—

I have the honor to inform you that I am instructed by the Hon. the Minister of Public Works to accept your tender at 9s. per ton for native coal to the extent of such supplies of your particular description of coal as the Resident Locomotive Engineer, Dunedin, may require, provided you can supply a coal which will not clinker, and to the satisfaction of that officer. The Stores Manager has been instructed to send to you for execution the formal contract, which is subject to the above-mentioned proviso.

I have, &c.,

WM. CONYERS,

Commissioner of Railways, Middle Island.

The Secretary, Walton Park Coal Company.

The SECRETARY, WALTON PARK COAL COMPANY, to the Locomotive Engineer, Dunedin.

SIR,—

Walton Park Coal Company's Office, Dunedin, 20th February, 1880.

I am instructed by the directors of the Walton Park Coal Company to inquire when it will be convenient to have the comparative trials of the Company's and other coals on one of the new American engines, as already promised by you. The directors are anxious that the trials be made as soon as possible.

I have, &c.,

H. B. McINTOSH,
Secretary.

The Locomotive Engineer, Dunedin.

The LOCOMOTIVE ENGINEER, Dunedin, to the Secretary, Walton Park Coal Company.

Locomotive Engineer's Office, Dunedin, 25th February, 1880.

SIR,—

Trials of Native Coal.

I have the honor to acknowledge receipt of your favour of 20th instant relative to the trials of native coals on locomotives, and, in reply, beg to inform you that the trials were commenced on the 21st instant on one of the lately-imported American engines, and of this the two gentlemen appointed by your Company to watch the trials were duly apprised, and to which they have been giving their attention.

I have, &c.,

THOS. T. HERBERT,
(for Locomotive Engineer.)

CONDENSATION of REPORT made to the Chairman and Directors of the Walton Park Coal Company in the various Coal Trials made between Dunedin and Palmerston under Mr. Armstrong, Superintendent of the Locomotive Department, Dunedin.

10th April, 1880.

It has been reported that, after various trials have been made on the railway-line between Dunedin and Palmerston, for the purpose of ascertaining the relative values of different coals for locomotive purposes, the following results have been obtained:—

1. That, for all practical purposes, the Shag Point and Walton Park lignites are very well adapted for use in locomotives with large fire-boxes and roomy coal-carrying capacities.

2. That, although both these lignites are, to a certain degree, sulphurous, the extent in both cases is not sufficient to render it a serious objection.

3. That the steam-keeping properties of both the Shag Point and Walton Park coals are not quite so good as in the Newcastle coal; yet, with somewhat more attentive firing, no difficulties can be raised on this point. Although, in the three trials of the Walton Park coal taken for obtaining the average results quoted in Tables A and B, hereto attached, the load upon the train was never sufficient to fully test the coal's steam-keeping power, yet in the fourth special trial a better demonstration was made on this head by the fact that the steam from Glendernmid to the Deborah Bay Tunnel, the stiffest part of the line, showed an average of 131·8 lb. taken from eight observations, the lowest of which was 124 lb., and with 141·8 tons of load, the rails in such a greasy condition as to cause the engine to have its traction-power frequently overcome.

4. That, in comparing the relative cost of using the various coals, after setting aside the Bay of Islands on account of its sulphurous character, the Walton Park, in spite of a larger quantity being consumed, shows a saving over the Newcastle of 11s. 8d., and over the Shag Point of 9s. 2d., for the carriage of 100 tons over a hundred miles of road from Dunedin.

5. That the sparks were very few, and never to a sufficient extent in either lignite to cause danger.

6. That, in proportion as the stoker employed working the Walton Park coal becomes more acquainted with this fuel, better results than those shown on the trials will be obtained.

Table A.—Result of Observations Taken on Trial.

Description of Coal Used.	Average Steam-pressure on Trial.	Evaporation of Water to 1 lb. of Coal.	Coal Consumed per Mile on Trial.	Average Speed per Hour on Trial.		Load per Mile on Trial.			Number of Trucks.
				m.	ch.	tns.	c.	q. lb.	
Newcastle ...	121·26 lb.	6·60 lb.	49·20 lb.	15	27	135	11	3 20	2
Shag Point ...	124·33 „	4·39 „	62·80 „	15	45	110	10	3 10	3
Bay of Islands ...	120·86 „	6·83 „	47·82 „	14	38	120	4	3 12	1
Walton Park ...	122·86 „	3·23 „	83·80 „	14	52	102	14	0 11	3

NOTE.—In the trials taken of the Walton Park coal, a regular improvement took place in every successive trial of the evaporating power of the coal, as is shown by the fact that the first showed 2·94 lb., the second 3·22 lb., and the third 3·53 lb.: this was owing to the stoker becoming better acquainted with the coal. The bad result of the first trial, it will be therefore seen, has materially injured the average of this coal.

Table B.—Cost of the Use of the Various Coals.

Description of Coal Used.	Per Ton in Dunedin.	For hauling 100 Tons of Goods 100 Miles.	To Work one Engine for Twelve Months—35,000 miles.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	
Newcastle ...	1 10 0	2 8 0	840 0 0	Cost of hauling from mine, 2s. per ton
Shag Point ...	0 18 0	2 5 6	796 0 0	Cost of hauling to Palmerston, 4s. per ton
Bay of Islands ...	0 18 0	1 11 1½	544 6 5½	Cost of ship and haulage, 11s. per ton
Walton Park ...	0 10 0	1 16 4	635 16 8	Cost of haulage, &c., from Green Island, 1s. per ton

FRANK W. PETRE,
Engineer.

Mr. FRANK W. PETRE to E. B. Cargill, Esq., Chairman of the Walton Park Coal Company.

SIR,—

13th April, 1880.

I have noted the following objections to the use of your Company's coal, which were raised by Mr. Conyers and Mr. Armstrong on the occasion of your seeing them with my report on this matter:—

1st. That, though the figures in my report are admitted to be correct, yet the result of the trials goes to show that this coal cannot be advantageously used for locomotive purposes, as the steam-generating power is so small that the injector cannot be used in ascending the incline, and on every trial it was found necessary to stop in the ascent and use the blower to get up steam and fill in water.

2nd. That the additional labour of firing with the Walton Park coal is so great that it could not be used without placing two firemen to do the work, as now done by one.

3rd. That Mr. Armstrong added that the difficulty as to the inclines would have equal force in respect to the several inclines on the railway south of Dunedin, such as the incline from Caversham to Look-out Point, between Abbotsford and the Chain Hills tunnel, from Waihola to the Gorge, and between Milton and Stirling.

As to the first objection, I cannot agree with the conclusion; for on the third trial, with a load of 103½ tons, the injector was used between Glendernmid and the Deborah Bay tunnel, which is certainly the stiffest incline between the Clutha and Palmerston. Further, I found, on consulting my notes of the trials, that between Dunedin and Blueskin, a distance of 17½ miles, only two stoppages were made,

one at Glendermid for one minute, and one at Port Chalmers for two minutes. Again, I see that the run back from Palmerston to Dunedin was made without any stoppage, except at Sea Cliff to take water into tank, so that the injector must have been worked up the heavy incline from Blueskin to Purakanui whilst the train was moving; this was also the case in trials Nos. 1 and 2. Judging from these observations, and others which I made when running the trials, I have concluded that the Walton Park coal, though not so good as Newcastle, is sufficiently good for all practical purposes.

On objection No. 2, I must say that I cannot see that throwing in one additional ton of coal during about seven hours should bring so much extra labour on the fireman as to necessitate an extra hand; more particularly as there is no pricking or taking-out of clinkers to be done with this coal. I would further direct attention to quantity of coal got through by a fireman, even on an ordinary train, for seven hours on an English line, which, to the best of my recollection, is, on the average, one-third more than the figures show for the Walton Park coal.

On the third head, I can but draw your attention to the table below of average grades on north and south lines. It will be seen there that the southern grades, for severity, cannot be compared with those of the north.

Table of Average Grades.

NORTH.			SOUTH.		
Station.	Grades.	Length.	Station.	Grades.	Length.
		M. Ch.			M. Ch.
Glendermid—Deborah Bay Tunnel	1 in 51·6	3 56	Caversham—Look-out Point	1 in 66	0 77
Purakanui—Blueskin...	1 in 72·6	5 9	Abbotsford—Chain Hills ...	1 in 56	1 15
Evansdale—Omimi ...	1 in 100	3 0	Waihola—Gorge ...	1 in 66	0 53
			Stirling—Clutha ...	1 in 67½	0 43

I have, &c.,

FRANK W. PETRE,
Engineer and Architect.

The CHAIRMAN, WALTON PARK COAL COMPANY, to William Conyers, Esq., Commissioner of Railways, Middle Island.

SIR,—

Walton Park Coal Company's Office, Dunedin, 15th April, 1880.

Referring to the interview with which you were good enough to favour me and some other directors of the Walton Park Company on the 12th instant, on the subject of the recent comparative trials of the Company's coal, I have the honor to hand you herewith a copy of a memorandum of Mr. Petre in reply to my verbal report of what you then communicated to us as your view of the result of the trials; and I take leave to remark—

1. That, in face of the plain fact that on four successive trips from Dunedin to Palmerston and back, admittedly the most difficult section of the main line of railway, these coals were exclusively used in driving the engine with a heavily-laden train at a great saving in cost over any other coals, the conclusion that these coals cannot be advantageously used appears to be quite unreasonable.

2. The somewhat technical objection put forward, that, in ascending the steepest gradient, it was found necessary to stop and put on the blower in order to work the injector, involving a stoppage of two or three minutes, would appear to be made too much of, inasmuch as the recorded figures do not prove it to have been necessary, the steam at the top of the ascent showing 124 lb. of pressure, leading to the conclusion that the injector might have been used during the ascent of the drive had it been thought fit. But, even admitting that it was necessary at that point, on no other occasion during the whole run to Palmerston and back was it so; and fair time appears to have been kept throughout. Further, on the third trial trip no such stoppage appears to have been made at all, the only stoppage being at Glendermid for one minute and Port Chalmers for two minutes; and I think it may be safely assumed as within the judgment of any ordinary person, without calling for the application of technical knowledge, that what would suffice to drive the engine from Palmerston to Dunedin without check or difficulty would equally suffice to drive it from Dunedin southwards, where the gradients are not nearly so severe.

3. The statement made to you by the driver, that driving over a perfect level, say on the Taieri Plain, would create a greater difficulty in working the injector than the ascending and descending gradients, was surely very rash and unreasonable; and I feel somewhat surprised that you allowed it to be made, being, as it was, a contradiction of your own statement to me at another part of interview, that on the Canterbury Plains the Malvern Hills coal, which we understood to be inferior to Walton Park, is used on the railway because it is a perfectly level run. Such a statement would appear to show strong prejudice rather than sound judgment on the part of the driver, and must greatly detract from the value of his evidence.

4. I feel assured that Mr. Armstrong must have spoken without consideration when he said that the use of the Walton Park coal would require the employment of two stokers instead of one—that is, for the extra work involved in putting into the furnace an extra ton of coal over a period of seven hours. I should be glad to know if that has been found necessary in using the Malvern Hills coal on the Canterbury Plains. As pointed out by Mr. Petre, a much larger weight of coal is necessarily thrown into the furnace by a single stoker in driving the heavy trains in England at a much higher speed.

I trust you may find in the above remarks some reason for a careful reconsideration of the whole question. It is of great importance that, wherever possible, the coal of the localities through which the

railways pass should be made available ; and no prejudice on the part of the engine-drivers, or demand for the exercise of a little extra pains and trouble, should stand in the way of what would bring so much benefit to various localities in the employment of labour and the development of useful enterprise, especially when accompanied by considerable saving in cost to Government.

I have, &c.,

E. B. CARGILL,

Chairman of Directors, Walton Park Coal Company.

The COMMISSIONER of RAILWAYS, Middle Island, to E. B. Cargill, Esq., Chairman of Directors, Walton Park Coal Company.

Office of Commissioner of Railways, Middle Island,
Dunedin, 17th April, 1880.

SIR,—

I have the honor to acknowledge your letter of the 15th instant, enclosing report from Mr. Frank Petre with reference to the suitability of Walton Park coal for locomotive purposes, remarking upon some of the trials made with this coal and upon opinions expressed by Mr. Armstrong thereon, and urging the importance of using for railway purposes the coal produced in the localities through which the line passes. I concur in much that is stated in your letter, and I have directed Mr. Armstrong to give the Walton Park coal a fair and proper trial on the south line, and to do his best to make it available for locomotive purposes.

I have, &c.,

WILLIAM CONYERS,

Commissioner of Railways, Middle Island.

The CHAIRMAN, WALTON PARK COAL COMPANY, to the Commissioner of Railways, Middle Island.

SIR,—

Walton Park Coal Company's Office, Dunedin, 15th May, 1880.

I had the honor to receive in due course your letter of 17th ultimo, which was the occasion of much satisfaction to the directors of this Company, as they were led by it to believe that the coals of the Company would be immediately taken into use for locomotive purposes. I regret to have to say that your promise to that effect has not been carried out. Up to this date the total quantity of coal taken for the railway amounts to not more than 24 tons. It is plain to the directors that, notwithstanding the successful trial of these coals, and the clear proof that they could be advantageously used at very considerable saving of expense to the public, the determined prejudice of the employés has proved of greater weight than any regard to the public interest. I have to state that it is the intention of the directors to memorialize the Government, laying before them the whole of the reports and correspondence.

I have, &c.,

E. B. CARGILL,

Chairman of Directors, Walton Park Coal Company.

No. 80.

Evidence of Mr. JAMES ARCHIBALD McILRAITH before Mr. Commissioner A. J. Burns, at Homebush, 28th May, 1880.

My name is *James Archibald McIlraith*. I have been twenty-four years in New Zealand, and resided all the time in this district. I have been managing the Homebush Estate for the Deans trustees ; and during these years have developed several industries in this district, the principal being coal-mining and brick-manufacturing. In the year 1872, in company with Dr. Haast, several seams of coal and beds of fireclay were discovered on the estate, also glass-sand and pigments. These deposits are not confined to the Deans estate, but have been discovered for many miles and on many properties in the Malvern Hills ; marble and other valuable building-stone being found in large quantities. I had the pleasure of this day showing you several industries in active operation, and pointing out places where industries were likely to be started at no distant date. I have discovered outcrops of coal from Sheffield to the Rakaia Gorge at distances of not more than one mile apart, thereby proving that this valuable and indispensable mineral to man's comfort and use is to be found in large deposits for the whole of that distance of twenty-four miles ; also, that the fireclay beds have been traced for the whole of that distance. You yourself have seen a number of these outcrops to-day, and can so far testify to my statement. The railway from Christchurch to the White Cliffs was opened for traffic about the 8th November, 1875. In order to show the increasing development of the industries that have been started on the Deans estate, I may state that in the month of May, 1876, I sent over the White Cliffs Railway 86½ tons of coal, and sold otherwise 50½ tons during that month. The output of coal continued steadily increasing until May, 1879, when 383 tons of coal went over the railway in that month alone, and 49½ tons of coal were sold otherwise ; and in May, 1880, 560 tons of coal were sent by the railway, and 99 tons of coal were sold otherwise. I may here state that, had this railway not tapped this district, these valuable coal and fireclay deposits were practically valueless. You have to-day visited the manufactory of Messrs. Ford and Ogden, and can fully estimate the energy there displayed in manufacturing the fireclay into drain-pipes and bricks, and many other useful articles of pottery ; also, the terra-cotta manufactory of Mr. Condliffe. These industries employ a large number of men, who are consumers of farm and other produce, and have gathered round them a population in a district that a few years ago was a wilderness, or only travelled over by a few shepherds in charge of their flocks. I ascribe the starting and fostering of these industries entirely to the fact that the White Cliffs Railway runs into the heart of those valuable deposits already mentioned. Still, notwithstanding that the White Cliffs line and the Sheffield line tap those deposits at two separate points, yet any one who has given coal-mining any consideration can well understand that something more than merely tapping these deposits at two points is required. I am therefore of opinion that, to more fully develop those valuable deposits, another line of railway is required to run between Sheffield and the Rakaia, in such a direction that the various proprietors may develop those deposits which are now practically valueless. If these deposits were developed a large and increasing number of settlers

would be located on this line, of a class much required in the country—namely, consumers, who will at the same time supply the increasing demand for coal, and the various articles manufactured from these fireclay deposits. It must be also borne in mind that such a class of settlers will be large consumers of produce that is now being exported to Britain and other countries; and the very fact of such a class of settlers being located in a district will be the means of starting industries not yet thought of, and which never would be developed unless lines of railways are constructed for that purpose. It may not be out of place to state that the coal produced from the Glentunnel Mine and carried over the White Cliffs Railway has brought over £1,000 to the revenue of that railway during the past year, and that this traffic is increasing very rapidly. One great hindrance to the output of coal, and a grievance that has been felt very severely in the development of a market, has been the absurd regulations whereby I am prevented having one or two empty wagons kept at the siding in readiness to be filled. This has not only hurt my market, but has also kept revenue from the railway. In developing new industries I find enough of trouble and annoyance to disturb my mind without Government tying down the traffic on the railway with cast-iron rules that give, very often, great annoyance without producing any good results to the railway; and anything your Commission can do in remedying these evils will be a great boon to the district.

JAMES ARCHIBALD McILRAITH.

DRAIN-PIPES, POTTERY, ETC.

No. 81.

Mr. THOMAS BUXTON to the Chairman of the Local Industries Commission.

SIR,—

Steam Brick and Drain-pipe Works, Makarewa, 24th March, 1880.

In reply to your request for information or suggestions *re* local industries, I beg to say that, in my opinion, about the best thing that could be done for promoting a large expenditure of money on reproductive works in Southland would be a Drainage Act, such as or similar to that brought forward by Mr. Murray last session of Parliament. It is a well-known fact that a very large portion of land in Southland is either swamp or too wet to cultivate without drainage; but the owners in many cases are unable to drain, either from the want of money or else outfall, which latter they have to obtain through adjoining lands, the owners of which are unable for want of money, or are unwilling, to commence operations. The money-lending and outfall clauses of Mr. Murray's Bill would remove these objections; indeed, I am persuaded that farmers generally would gladly take advantage of such an Act. I have been engaged for the last ten years in the manufacture of drain-pipes, and during that time I have had ample opportunity of getting to know the minds of farmers on this subject, and I find but one opinion—viz., that they would be glad to drain every acre of wet land they have if they had the means of doing so. A very large portion of the working-classes of New Zealand are unsettled labouring-men, who could not be employed in manufactories, supposing their establishment to be possible; and, as the expenditure on public works must necessarily decrease year by year till it finally ceases (if there is to be no more borrowing for three years), a large number of labouring-men will therefore be out of work, and of course labour will become very cheap—cheap enough for the farmers to employ it in improving their farms if they had the means. Such a measure Mr. Murray's Act would provide. I believe more good would be done in the way as indicated above than would result from attempts to force on manufactories by Government aids. Indeed, I have no faith in manufacture preceding a large population, except in an initiatory sense, in the way of training the rising generation; for population affords two great advantages to the manufacturer, viz.—local markets and cheap labour—without which no manufacture on an extensive scale could succeed in these days of rapid and cheap transit, except perhaps in some particular line where the resources of the colony afford special advantages—such as, for instance, something requiring a large consumption of coal, which is abundant and easily got at in New Zealand. We have experimented a little in Otago in an endeavour to establish the manufacture of pottery by paying bonuses (£250) to people for trying to make porcelain out of brick-clay; but the ware would not hold water nor jam either, for if you put it in it came through the pores and stood in large drops outside. The above is my humble and candid opinion on the matter.

I have, &c.,

THOMAS BUXTON.

No. 82.

Mr. WILLIAM PLANT to Mr. Commissioner Tinne.

SIR,—

Thames, 25th March, 1880.

Seeing that you are appointed a Commissioner *re* local industries to represent this province, I beg to request that you will not omit to recommend that some assistance be rendered to persons capable of undertaking the manufacture of earthenware. From my own knowledge of the material obtained in this province, I do not hesitate to predict that at no distant date the manufacture of potteryware will become one of the staple industries of this province. Unfortunately, practical men do not receive that support to which they are entitled. I would remind you that, if proper works were started, the large sum of money annually sent to foreign countries for insulators would be retained in New Zealand. I have myself made very fair samples without any of the usual appliances. I have made numerous experiments in this line at my own expense, and find the material, which is obtainable in large quantities, well suited for the purpose. I do not know whether you are acquainted with Mr. Dowden's place in Auckland, but I can assure you that it is a sin to use the material for drain-pipes. We have also good material at the Thames. I would not recommend further protective duties. You will perhaps remember me when I say I am the person who, in company with Mr. W. Dowden, showed you the insulator in November last. My only object in writing to you is to assist in devising means whereby the rising generation may find honest and profitable employment.

I have, &c.,

W. PLANT.

No. 83.

Mr. WILLIAM PLANT to the Chairman and Members of the Royal Commission *re* Local Industries.
GENTLEMEN,— Thames, 20th April, 1880.

In compliance with the request contained in your circular, I have the honor to suggest for your consideration that, with a view to the establishment of a permanent earthenware-factory, I am of opinion that the following steps should be taken:—

1. It should be a recommendation to the Government that an advance should be made to me, or other competent person, of the sum of £500, to go towards the purchase of a suitable site, buildings, machinery, &c.; the person so intrusted to give satisfactory proof of his ability and willingness to expend any further sum which may be required for the establishment of the industry, to the extent, if necessary, of an additional £1,000, the entire plant to be held by Government until the repayment of the £500 by the person undertaking the establishment of the industry.

2. The Government to grant to the person or company undertaking the venture the sole right to make and supply all insulators used by the New Zealand Telegraph Department for the term of five years, the article supplied being of course subject to the approval or rejection of that department.

3. The Customs tariff to be amended by the following articles being entirely relieved from duty—
namely, carbonate of lead, borax, and plaster of Paris.

I have, &c.,

WM. PLANT.

No. 84.

Mr. GEORGE BOYD to Mr. Commissioner Tinne.

SIR,—

Newton, 16th April, 1880.

It is very little information that I can give to the Commission on Native Industry. All I could think of I gave some time ago; so that I can only repeat what I then requested Government to do—that is, to put a heavy duty on all kinds of common potteryware, on drain-pipes, also on all descriptions of firebrick and fireclay goods. All the above can be manufactured here. But I would recommend a lighter duty on all china, porcelain, or parian, as it will be a long time before we could manufacture goods of that description here so as to compete with the Home market. However, I would recommend that all paints, glazes, and clay or minerals required in the manufacture of pottery or glass be admitted free. The above is all I remember at present.

I have, &c.,

GEO. BOYD

(per A. H.).

No. 85.

Messrs. AUSTIN, KIRK, and Co. (Limited), W. NEIGHBOURS, and FORD and OGDEN, Manufacturers of Drain-pipes, &c., to the Christchurch City Council.

GENTLEMEN,—

Christchurch, 17th April, 1880.

In answer to your letter asking for information *re* local industries, we have much pleasure in laying before you our views.

We, the undersigned manufacturers of drain-pipes, firebricks, and potteryware, beg to suggest to you and the Royal Commission that, as makers of drain-pipes, we think it urgently needful that an import duty of 15 per cent. be placed on all drain-pipes brought into this colony. We also beg that a duty of £2 per thousand be put on all firebricks imported into New Zealand, and also a duty of 20 per cent. on imported brown earthenware. We would also recommend a reduction of a halfpenny per ton per mile on bricks, drain-pipes, clay, and native coal carried on the New Zealand Railways.

We find that large quantities of firebricks and drain-pipes are brought from Home as ballast, consequently at little or no freight; thereby interfering with legitimate manufacture here.

By carrying out our suggestions we are confident that it will be the means of employing at least 50 per cent. more labour in these industries.

We have, &c.,

AUSTIN, KIRK, AND Co. (Limited).

W. NEIGHBOURS.

FORD AND OGDEN.

No. 86.

Evidence of Mr. HENRY BLAND KIRK, of the firm of Messrs. Austin, Kirk, and Co., Farnley Brick, Tile, and Pottery Works, taken before Mr. Commissioner A. J. Burns, Christchurch, 21st April, 1880.

My name is *Henry Bland Kirk*. I am a member of the firm of Messrs. Austin and Kirk. We have been ten years in partnership, and have been over five years in this particular spot. We have over 40 acres of freehold in this place, and half an acre in Colombo Street, Christchurch, and half an acre in Sydenham, used as a sandpit, and 310 acres freehold in the Malvern District, where we procure our fire-clay, and in which we have deposits of lignite of good quality. We employ seventy-one persons on our works (including three members of the company) on an average of nine hours a day. We pay wages varying from £4 to £2 2s. per week. The men who work in the sheds make full time, the men who work outside have broken time in wet weather. About half our men work outside all the year round. I should have stated that during the last twelve months we floated these works into a limited liability company, under the name of "Austin, Kirk, and Co." We sell about a thousand pounds' worth of manufactured goods of various kinds per month, principally in Christchurch and neighbourhood. We ship very little; occasionally we ship a few of our goods to Napier and Oamaru. Since becoming a limited liability company we have declared a dividend of 10 per cent. for the six months (5 per cent. has been paid, and 5 per cent. carried over to the reserve fund); but lately other firms in the same trade have considerably reduced their prices for goods, compelling us to do likewise, therefore we do not anticipate so large

a dividend for the current year. The cause of the reduction in prices is that there are too many firms at the same trade, and the market is overstocked, compelling reduction in manufacture and prices. We make a much superior article in drain-pipes in every respect to the imported article, as we have shown you by samples; but when the Drainage Board of Christchurch called for tenders the importer obtained the contract at about 8 per cent. below the lowest colonial tender, and we are given to understand that the importer is able to secure a profit at these prices. The starting of this industry in the colony has been the means of reducing the prices paid for the imported article very considerably, and for a long time no drain-pipes were imported into Christchurch; but the depression in trade in Britain, and the reduction of freights, has enabled the importer to successfully compete with us, particularly in cases where freights have been accepted at lower rates than those advertised or generally paid for dead weight. This refers generally to all our goods. I wish to say here that our workmen have up to the present time met us fairly in reducing wages; but whether we can obtain any further reduction at present is doubtful, although we fully believe the price of labour must be reduced. In the meantime, were 10 per cent. or 15 per cent. duty placed upon drain-pipes, and 20 per cent. on pottery goods, until the labour question were settled, we think we could carry on; also £2 per thousand on imported firebricks. Our reason for asking for duty on firebricks is that we are given to understand that firebricks are often carried in ships from Britain at little or no freight, being taken as ballast, thus interfering with legitimate trade. At present the only fireclay at our disposal we procure from the Malvern District. It would materially assist us if the rates now chargeable for the transit of this article over the Government railways were reduced by a halfpenny per ton per mile. We consider that Government would be no losers by this reduction, as a very much larger quantity would be carried on the railway than is now done. This also applies to the transit of coal from the same district.

H. B. KIRK,
(for Austin, Kirk and Co.)

No. 87.

Report of Mr. WOODNORTH, Pottery Works, Waikiwi, Southland, to Mr. Commissioner J. W. Bain.
23rd April, 1880.

MR. WOODNORTH reports that the industry was first attempted on a small scale by Mr. Louis Longuet, of Invercargill. During the past three years Mr. Woodnorth and his two sons have been carrying on the manufacture, but they complain that they have not sufficient capital to extend the trade in order to make it profitable. Several attempts have been made to float a joint-stock company to work the business; but, owing to the existing depression in trade, it has not been found possible to obtain the necessary support. Mr. Woodnorth and his sons have consequently been struggling away with their own labour, and are making steady progress; but this is naturally very slow, owing to the absence of ready money to increase the production. The clay to be obtained on the ground is the same as that used at the Milton Pottery Works, and the superior character of the crockeryware turned out shows that it is thoroughly suitable for the manufacture of articles of every-day use. Drain-pipes of a large size, sound, and well glazed, are being regularly manufactured, and a good demand is springing up for them. Indeed, Mr. Woodnorth experiences no difficulty in disposing of all his manufactures, as they have been very favourably received in the local market. He is therefore quite satisfied that the industry could be successfully established on its own merits, provided a little capital (say £1,000) could be found to develop the trade. Mangarese, plaster of Paris, zinc, and feldspar are the only imported articles used in the manufacture, and some of these ought to be procurable in the colony. Mr. Woodnorth has had samples of a beautiful white clay, suitable for making porcelain, sent to him from the Waikato District. If he could only get assistance, Mr. Woodnorth would guarantee to turn out a superior description of chinaware.

Appended is a certificate from Mr. A. Anderson, general grocer, Harrisville, near Invercargill.

Mr. A. ANDERSON to Mr. Commissioner J. W. Bain.

SIR,—

19th April, 1880.

I am a buyer of the goods made here by Woodnorth, and I can testify that his sewage-pipes, flower-pots, teapots, dishes, &c., are good, and more reasonable in price than the imported goods of the same class. I have watched the progress of these works for upwards of two years, and I am sure they have shown great perseverance and industry in bringing their earthenware to its present state of perfection.

I have, &c.,

A. ANDERSON.

No. 88.

Evidence of a DEPUTATION from the CHRISTCHURCH NATIVE INDUSTRIES ASSOCIATION, Christchurch, 23rd April, 1880.

Present: The Chairman, Mr. Bain, Mr. Stevens, and Mr. Burns.

Mr. Allan laid before the Commission copies of the proceedings of the Association. He stated that drainage-pipes had been left free in spite of the recommendation of the Association, and that in consequence a contract of £8,000 had gone to Glasgow instead of to a Christchurch firm. He attributed this to the prejudice of engineers. It was the Drainage Board who had issued the contract. He considered they were part of the Government.

Mr. Bain pointed out that the Government had no control over the Board.

Mr. Allan: The Drainage Board played into the hands of the importer. They called for delivery of the pipes all at once within eighteen months, but not for nine months from the date of tender.

Mr. Bain: Was the quality of the local article equal?

Mr. Allan explained that importers had some of the most important parts of the piping—the junctions—made on the spot.

Mr. Charters added that an experiment had shown that the imported pipes absorbed much more water than the local ones.

Mr. Allan thought the local firm should have competed successfully for the drainage contract. An Auckland firm had actually sent a lower tender than the importer, but it had been received too late.

Mr. Bain: That shows that the industry can stand alone, without artificial aid.

Mr. Allan: So it seems, unless difficulties are purposely thrown in the way of the local firm.

Mr. Stevens: But the Drainage Board tender seems to have suited the Auckland firm.

Mr. Allan did not know all the facts about that. If there had been a duty of 10 per cent. the local firm would have got the contract.

The Chairman: Would they not have added 10 per cent. to their tender?

Mr. Allan thought not. Protection would cause more competition and not raise the cost.

In reply to *Mr. Burns*, *Mr. Allan* said the progress of the local industry had compelled the importers to lower their price.

Mr. Charters said the local tender undertook to deliver the pipes wherever they were required, while the imported cargo was to be delivered in one lot at the drainage depôt. Thus there was really very little difference between the tenders.

Mr. Stevens asked *Mr. Allan* what was the best way of ascertaining whether the addition of 5 per cent. to the import duty on various articles manufactured locally had increased the price of local manufactures.

Mr. Allan said the duties did not operate immediately. In leather goods the result of the increase had been that uppers were manufactured here and sold as cheaply as before. Some of the material for this manufacture was imported, but much material manufactured in the colony was also used. Calf was a French specialty, but there was a constant demand for all that could be produced in the colony.

Mr. Charters said that the increase of duty had not raised the price of locally-manufactured woollens; on the contrary, the demand for them had increased so much that the manufacturers had actually lowered the price, and made preparations for largely-increased production.

Mr. Allan spoke of the leather goods trade generally. His business had been originally an import business entirely. As the duties grew it had turned into a manufacturing business. A hundred and seventy-two hands were now employed in it, and 500 in Christchurch. The goods were now sold at from 10 per cent. to 12½ per cent. less than before the duties were imposed.

Mr. Burns: Then that industry can stand alone?

Mr. Allan: Now it can; but it would not have grown up without the duties, while the cost to the consumer has not increased.

Mr. Bain: What is the rate of wages?

Mr. Allan: Girls, learners, from 8s. to 25s. a week, and a few as high as 30s. Boys are taken as apprentices at from 8s. to 16s. a week, with a bonus of 15 per cent. for what they make over and above their wages. The rest is done by piece-work. The men earn from £2 to £4 per week. The best men all like piece-work. In England the men would earn from £1 10s. to £2 10s., but they would work longer. Our men mostly work about fifty-two hours a week, or nine hours a day. I am not in a position to state as a matter of fact whether in other trades than mine the manufactures were increased in price by the increased duty. The Association hoped the duties that had been abolished last session would not be reimposed. The removal of the duty had appreciably helped the industries.

Mr. Charters wished to speak about cement. A company was about to be formed to work the Oxford chalk. The question was, whether the Government should be recommended to grant a bonus or to put on a small duty.

Mr. Allan mentioned the desirability of planting the railway reserves with hickory, ash, elm, and other trees used in manufactures.

Mr. Stevens asked whether the coach-builders could compete with the importers now that the duties on their materials have been remitted, and the duties on the imports increased?

Mr. Allan thought not, but the changes had not operated long enough to show results.

Mr. Allan drew attention to the necessity for simplifying the patent laws. There should be some system by which any person could get information at any of the centres, and could apply personally instead of being obliged to employ a solicitor.

Mr. Allan spoke of the manufacture of twine such as was used in the reapers and binders. Five hundred tons of twine would be needed for Canterbury alone if the machines came into universal use. Twine is charged 15 per cent., which is sufficient; but wire is admitted free. Twine also is admitted free under a Commissioner's decision as a substitute for wire. The local manufacturer will eventually be able to compete successfully, but not for a year or so. Further information would be forthcoming from the twine-makers themselves.

Mr. Charters said he hoped the straw-binder would do away with the twine-binder. The canvas aprons and elevators might be made in the colony; but the materials are charged 15 per cent. *ad val.*, equal to 16½ per cent., while the articles themselves are admitted free as machine extras.

Mr. Allan considered this an important matter, and worthy of consideration.

Mr. Allan thought there was a chance of the manufacture of linseed-oil springing up. It was a farmer's question really. Ninety thousand gallons of linseed and 18,000 gallons of rape oil were imported last year. There would be no difficulty in producing it in the colony. *Mr. Murphy*, secretary of the Agricultural and Pastoral Association, was about to deliver a lecture on the subject, and a copy should be forwarded to the Commission.

Mr. Charters gave some information as to the manufacture of flax-pulp for paper-making, and hoped to be able to give further particulars later on.

Mr. Allan: *Mr. Gray*, of the Canterbury College, is about to give a lecture on cement. He had mentioned that many people often brought minerals, &c., to the College for analysis, and he thought it would be worth while to afford readier facilities for supplying information.

Evidence of Mr. C. S. REEVES, Proprietor of the Milton Pottery Works, taken before the Commission on Local Industries, Dunedin, 18th May, 1880.

I HAVE not very much to say on this question. I have taken up an industry that was established some years back; but up to the present it has failed. I am, however, determined, if I possibly can, to make it successful. The duty was altered last session from 10 to 15 per cent. That is, of course, a very considerable item in itself, and no doubt it will give some assistance. Not having my premises in full working order, I am not yet able to say whether or not I shall be successful with my manufactures. If I am able to overcome the prejudice which Mr. McLeod says exists, and which I know does exist, against colonial manufactures, I think I shall be able to make the pottery business a success in this colony. We have good raw material at hand—the clay is here to be dug out—the only thing required is its manipulation. There are a few articles imported by those in the business that might with advantage be produced here. For instance, demijohns are admitted at 10 per cent. duty. In Victoria the protection being large has induced the manufacture of demijohns on a very extensive scale. There is, indeed, no such thing as an imported demijohn in that colony. The chemists, &c., require such large quantities of this article that the manufacturers there are able to turn out large quantities of them, and are able to sell them down here at an exceedingly low price. These articles are now subject to a duty of 10 per cent. It might be raised to 15 per cent., the same as earthenware. Filters are admitted free, and it is only a question of time when we shall be able to make them here, and to compete successfully with the Home manufacturer. Firebricks and tiles are also admitted free at present. I am now making firebricks at Milton that compare favourably with any British-made firebricks. There is another article I am making, as are several others—I mean drain-pipes. Mr. White, at Kensington, also makes a large number of them. Drain-pipes are admitted free into the colony. I may point out, for instance, what happened the other day at Christchurch. The Drainage Board there accepted a tender for the supply of eight thousand pounds' worth of imported drain-pipes. The importer's tender was some six or seven hundred pounds under the tender of the local manufacturer. Had the tender been given to the local manufacturer it would have been the means of giving employment to some fifty or sixty hands for about eight months, and instead of money being sent out of the colony it would have been retained in it. Had there been a duty of 10 per cent. on drain-pipes the work would have gone to the local manufacturer. This is a very glaring instance; and the question crops up, how far the tariff should go on the side of protection. There is nothing further that I know or think of just now. I am perfectly satisfied with the 15 per cent. duty. With that duty I think that if the manufacture here of earthenware does not succeed, the time has not arrived when it should be established. This duty on the common class of goods will give a very great advantage to the colonially-manufactured article. It will allow the colonial manufacturer to get a greater outlet. It is my opinion, based on the output, that no manufacturer will produce goods at a price at which they cannot be disposed of. If I am able to send out a thousand pounds' worth of goods a month, I calculate on a certain profit; if I am able to double that, then I am able to sell at a less price, and less than what it can be imported for. The importers of earthenware here, as soon as they see I am able to supply the market, will write Home to their friends to that effect, and there can be no question but that rather than lose the trade they will make considerable reduction in their business. Thus it is that the Staffordshire people have been completely cut out of the American trade, with the result that potteries have been established in various parts of America. The same result will be observable here in the course of time. I believe that we shall see two or three potteries in the colony with every chance of success. The great difficulty staring us in the face is the labour question. In the course of a little time I shall require more hands, and I shall have to import them from Home. If free and assisted immigration is stopped I shall have to ask the Government to assist me in importing the labour I require. My pottery, in full work, is capable of employing seventy hands; I now employ thirty. I do not know that I can give the Commission any further information; but, if they can spare the time, I should wish to show them some of my manufactures.

110. *Mr. Bain.*] Do you think it is necessary to import labour? Have you tried to procure the labour in the colony?—I have advertised for it. You see that the potter's is a peculiar kind of labour. I could put on at once double the number of hands I have if I could get them.

111. I think that if you advertised, considerable numbers might turn up. I know in my experience that men have turned up in most unexpected quarters who have had special training in connection with industries—in fact, in places where you would never have expected to find them. I think if you advertised in the colony you would perhaps find as many men as you require?—I will think over your suggestion. I dare say it is worth acting on. I will make up my mind to do so presently—as soon as I get my premises finished. When I get them finished and in good working order I shall have room for fifty hands if I could get them.

112. You have referred to the Christchurch Drainage Board importing pipes from Home. I can recollect the Town Council of Dunedin importing a hundred or more street-lamps, and, if I mistake not, you were either Mayor or a member of the Council at the time. Did you give an opportunity at that time to the local foundries to make those lamps?—It was not considered that they could possibly sell them at a price for which they could be imported. I understand that afterwards some of the local manufacturers expressed their desire to tender for these lamps, and I believe that tenders were sent in, although the order for their purchase had been sent Home.

113. You confess to having had then a little of that prejudice which you now condemn?—I confess that I had not the same views then as I have now. Every day confirms me in the position I have taken up now with regard to the manufacturing industries of this country—namely, that they must be supported in every shape and form. We must have manufactures in this country.

114. What imported articles do you use in connection with your pottery works?—The only things I expect to import from Home are printing-paper, paints, and plaster of Paris; everything else I hope to be able to obtain here.

115. Have you got kaolin?—The clay we are using now is a very peculiar one. I could not use the same mixtures as they use at Home.

116. You do not use Chinese clay?—I have some, but it is no use; I do not intend to import anything whatever from Home if I can avoid it.

117. *The Chairman.*] You have referred to demijohns, and have told us the Melbourne manufacturers supply this market with them notwithstanding there is a 10-per-cent. duty to pay?—Yes; but they come in filled up with acids, and with flower seeds, and one thing and another.

118. If they are used as packages for different imports, do they come in free?—No; there is the 10-per-cent. duty.

119. Even if filled with some other dutiable article?—Yes. Of course I am not yet sufficiently established in the trade to say how far I am able to fight them. I consider myself that with a 10-per-cent. duty I ought to be able to do quite well enough.

120. It struck me as being rather strange that the importer should be able to bear the additional freight charges and the 10 per cent., and still fight successfully the local manufacturer?—I will explain it in this way. The Victorian manufacturer, like the American manufacturer, when he has secured his home trade, anything he does outside of that is extra trade and extra profit. When I have secured my home trade in this colony I shall push my trade to the islands round us and down to Fiji; endeavour if I can to get a tenth or even a fifth-rate trade with Victoria; and if I were able to go to Britain I should do so. I shall drive my trade as far out of this colony as I can, just as they are doing in Victoria at present.

121. Do I understand you to mean that the demijohn is exported from Victoria to New Zealand as the result of a genuine and profitable business, or merely as the result of over-production in Victoria?—I think there is a considerable business done.

122. Actually sent here subject to the charges I alluded to before, and to a duty of 10 per cent., and yet it is still sold at a profit, while the local manufactures cannot be sold at a profit?—I am not prepared to say that.

123. Is it a case of wages? Are potters' wages there lower than here?—No; wages are higher there.

124. That makes it all the more remarkable?—I am not able to speak very positively about the matter. I have only just made a start; but I know, as far as I can see, that there must be a large trade with Victoria. The manufacturer in Victoria having his home trade secured and doing a large business, anything else he does outside of that must be additional profit.

125. Filters are admitted free. Have you ever tried to produce them?—They have been tried.

126. They are not protected by patent?—No. They are quite simply made. There are many things which I hope to make yet.

127. Are the larger earthenware filters protected by patent?—The patent has run out. Filters are such a necessary thing to have in houses that I do not think it desirable to put a duty on them.

No. 90.

Evidence of Mr. JAMES FORD before Mr. Commissioner A. J. Burns, at Glentunnel, 28th May, 1880.

MY name is *James Ford*, of the firm of Ogden and Ford, brick and drain-pipe makers. I have resided in Canterbury over twenty-two years, and started the business here a little over twelve months ago. I have had an up-hill struggle with the business, but am glad to say that it is succeeding with us. One great thing that would help our business and make it a complete success would be a reduction of the railway tariff on our goods and on coals, as we are obliged to use Newcastle and Greymouth coal in the burning of our goods. The coal from Mr. Wilson's mine is very good; but, as there is no railway to this mine, we cannot use the coal because we cannot depend upon a steady supply. We get a large quantity of lignite from the Glentunnel mine, which is very good. Had our business been as far advanced as it is now, we would have successfully competed for the tenders called for for the supply of drain-pipes by the Christchurch Drainage Board, which has been obtained by a merchant who imports these articles. We have no hesitation in saying that our manufactures will compare favourably with the imported article in every respect.

JAMES FORD,
(for Ford and Ogden.)

No. 91.

Evidence of Mr. THOMAS CONDLIFFE before Mr. Commissioner Burns, at Glentunnel, 28th May, 1880.

MY name is *Thomas Condliffe*, a terra-cotta manufacturer. I have been over twelve months in the colony, and have started a small business. I procure the material in a hill on the banks of the River Selwyn—a good, workable material, and the quantity unlimited. I have shown you samples of my work, and am preparing some of my goods to send to the Melbourne Exhibition. The chief drawback to my business is the heavy charge on the carriage of my goods by railway; also the high railway tariff on coal, as I have to use Newcastle coal to burn some of my goods. I am going, however, to try some of the Greymouth coal. I have tried some coal from Mr. Wilson's mine: it is very good—nearly equal to Newcastle for my purpose; but I am obliged to discontinue its use, because there is no railway that goes near this mine, and the cartage is so very heavy—so much so, as completely to prevent my using it. I think it would be a great boon to my business and to the whole district if a railway was constructed to this coal mine. In fact, the railway that is proposed to be constructed ought to run in that direction, because it would tap seams of coal of better quality than have as yet been opened out in this district.

THOMAS CONDLIFFE.

DRUGS, ETC.

No. 92.

Messrs. KEMPTHORNE, PROSSER, and Co., to the Secretary, Chamber of Commerce, Dunedin.
Dunedin, 14th April, 1880.

SIR,— We beg to acknowledge receipt of your circular of 5th inst., with copy of a letter received from Edward Wakefield, Esq., Chairman of the Royal Commission on Local Industries, requesting information regarding the local industries in this district, and asking for suggestions as to existing industries, and also in reference to the establishment of new ones.

We have established a factory, at a cost of nearly £7,000, for the manufacture of washing-powder, blacking, knife-polish, baking-powder, curry-powder, fluid magnesia, bisulphate of lime, nitrate of silver, chloride of gold, and such chemical and pharmaceutical preparations as it will pay to make in the colony; but, as the factory does not pay us, we would suggest that the articles, which we use largely, in List No. 1 should be admitted duty-free, and that duties should be put upon those articles in List No. 2, as may be considered best by the Commission.

List No. 1.—Duty-free.

Articles used in manufacturing by Kempthorne, Prosser, and Co.'s New Zealand Drug Company (Limited).—Bottling-capsules, all sizes; paper, cardboard, and chip boxes, and materials for making the same in any form; sheet-tin, or stamped tin, for making into boxes; castor-oil (bulk), for bottling; almond-oil (bulk), for bottling; soda crystals or washing-soda, for making into washing-powder; carbonate of magnesia, carbonate of soda, Rochelle salts, borax, turmeric, cimrosium-seeds, cayenne-pods, celery-seeds, orange-peel (dried), spices, cassia, cloves, ginger, mace, nutmegs (whole), cinnamon, citric acid, tartaric acid, cream of tartar, chiretta, gentian-root, quassia, rhubarb-root, calumba-root, orris-root, cantharides, sarsaparilla-root, senna-leaves (in bales), naphtha, cocoa-beans, Horner's patent bottle-stoppers, empty bottle-caps and fittings.

Remarks.—Bottling-capsules, and empty bottle-caps and fittings; paper, cardboard, chip, and wooden turned empty boxes, for packing proprietary articles; empty cardboard boxes, magnolia-bound dummies, are now free. The demand at present is too small to induce any one to establish manufactories for making the foregoing articles. Stamped tin is already admitted free for meat-preserving and coffee-packing, and therefore should be free for other manufacturers' goods. Horner's patent bottle-stoppers: These are now subject to 15 per cent. duty *ad valorem*, whereas stoppers for aerated-water bottles, and bottle-stoppers, Hogben's patent, are admitted free for some reason or other. We, being the sole importers of Horner's patent, are made to pay duty upon them, while others get their stoppers in free. Cocoa-beans: The duty is now 3d. per pound—the same as cocoa and chocolate. If this duty was removed, no doubt the manufacture of these articles would be commenced here. We intended ordering plant from Home for this purpose; but when we found that the raw material was subject to the same duty as the manufactured article, we gave up the idea of manufacturing.

List No. 2.

We would suggest that duties be levied on the following articles: Blue, now 1d. per pound, should be the same as Melbourne, 2d. per pound. Nitrate of silver, 3d. per ounce; Melbourne duty, 6d. per ounce. Chloride of gold, say, 15 per cent.; Melbourne duty, 20 per cent. Knife polish, now free, say, 15 per cent. Plate-powder, say, 15 per cent. When the duty was on nitrate of silver, chloride of gold, and knife-polish, we imported and erected plant for their manufacture here; but we had scarcely commenced to make them when the late Government took off the duties previously on them. Blue: The duty of 1d. per pound now on is too small to encourage the starting of the manufacture here.

Sulphuric Acid Works.—We would suggest to the Royal Commission on Local Industries the importance of rendering some assistance by way of bonus to any person or persons who would erect such in the colony. Sulphuric acid is a most important element in many manufacturing industries, such as soap and candle works, aerated waters, artificial manures, dyeing, phosphorus, &c. For artificial manure alone its manufacture would be of immense value to the future agricultural interests of the colony, as it becomes a necessity to keep up the fertility and productiveness of the soil.

We have, &c.,

E. PROSSER,

Managing Director, Kempthorne, Prosser, and Co.'s New Zealand
Drug Company (Limited).

18th May, 1880.

List of additional articles used by Kempthorne, Prosser, and Co.'s New Zealand Drug Company (Limited), in their factory, and which they respectfully submit to the Commission for Inquiring into Local Industries should be free: Acid (acetic), phosphoric acid (strong and diluted), Barbadoes aloes, sacotrine aloes, bismuth in metal and powder, carmine, cochineal, muriate of cinchona, extracts, rose-leaves, *Noa ursi* leaves (bearberry-leaves), galls, gum Arabic, gum Senegal, gum copal, gum dammar, gums for varnish-making, gum mastic, indigo, indigo extract, Epsom salts, manganese peroxide, roots (medicinal), dragon's blood, dragon's blood (powdered), soda-crystals (washing-soda), vanilla.

E. PROSSER,

Managing Director, Kempthorne, Prosser, and Co.'s New Zealand
Drug Company (Limited).

No. 93.

Mr. JOSEPH BURGESS to the Royal Commissioners on Local Industries.

GENTLEMEN,—

Auckland, 22nd April, 1880.

I, the undersigned, beg leave to call your attention to the manufacture of laundry-blue, in which I am interested, being the only manufacturer of blue in the colony. I have, in conjunction

with my father, been engaged in the manufacture of laundry-blue for the past fifteen years, ten of which were passed in the largest manufactory in Great Britain; and our experience embraces, in addition, the secrets of two of the largest establishments in England.

The quantity of manufactured blue at present imported is about 50 tons per annum; its value, at £70 per ton, is £3,500, which, at 15 per cent. duty *ad valorem*, contributes annually to the revenue £525. In the manufacture of 50 tons of laundry-blue, 25 tons of ultramarine are used as raw material. The value of this, at £52 per ton, is £1,300, contributing to the revenue £50.

To ask the Government to remit the duty of £2 per ton on ultramarine, and impose a prohibitory tax on the manufactured article, would be in effect to ask the Government to forego revenue to the amount of £575; but this I would respectfully urge upon them to do, for the following considerations: There is now exported annually from the colony in cash the sum of £3,500 for the manufactured article, while, if it were made in the colony, there would only be the £1,300 exported for raw material; which would leave a balance of capital in circulation in the colony equal to £2,200. The 50 tons of blue at present imported would, if made in the colony, fully employ at least thirty pairs of hands, whose value to the colony, at £15 per head per annum, would be £450. The imposition of 2d. per pound duty on the English manufactured article would exclude it, and colonial-made of equal quality would take its place, without an increase in its price.

I here beg to remark that I have good reasons for believing that a large amount of printed matter in the shape of handbills, show-cards, &c., enters the colony enclosed in the cases containing the blue, without having paid the duty charged upon printing and stationery. I have also to add that, in addition to the 25 tons of ultramarine, a large quantity of chemicals, &c., are used in its manufacture, which either contribute liberally to the revenue or are produced in the colony.

Requesting your favourable consideration,

I have, &c.,

JOSEPH BURGESS,

Blue-manufacturer,

Home Street, Great North Road, Auckland.

No. 94.

Evidence of Mr. SLESINGER, Veterinary Surgeon, before the Commission on Local Industries, Dunedin, 14th May, 1880.

I NOTICED that 25 per cent. was last session made the duty on imported medicines; but since then I have found to my surprise that the duty was taken away again, and the manufactured medicines placed on the same footing as crude drugs. I am a manufacturer of nine kinds of medicines—two for human and seven for animal complaints. I am a veterinary surgeon of forty years' practice, having passed as such in Switzerland, and practised in Europe, America, and other parts of the world. Within the last four or five years I went in more for the manufacture of those medicines I have mentioned. They are all appreciated and approved for what they profess to be, and I could bring hundreds of witnesses to prove their curative qualities. Most of my medicines I import, for which I pay 15 per cent. duty—that is, the crude material from which I compound my patent medicines. I employ labour for the manufacture of these medicines. I support the printing trade to a great extent, and have spent hundreds of pounds for labels, wrappers, &c. I am also a supporter of the local tinsmiths, from whom I get the packages for blister-ointment and condition-powders. For these articles I pay, perhaps, 100 per cent. more than English prices. There is a person by the name of Lieutenant James in England who is sending out a blister-ointment for horses. This and all others I have challenged, and offered to produce a similar blister-ointment or a superior article at the same price. The duty was then 10 per cent. I may state that my packages contain 25 per cent. more than Lieutenant James's. His are packed in crockery, which I cannot get here. I have to use tins, which do not show bulk; and thus my packages have to contain eight drachms instead of six. Lard enters largely into the composition of the blister, and that is cheaper here than in England. As far as patent medicines generally are concerned, I think that if there were a duty of 100 per cent., the people would not lose by it. A less quantity would be imported, but the increased duty on the remaining imports would make up for it. Patent medicines are manufactured by the ton in England in large manufactories; but here they cannot be produced at a profit because there is not sufficient sale for them.

128. *Mr. Stevens.*] You were able to compete with James when the duty was 10 per cent.—Yes.

129. And you think the duty has not been raised to 25 per cent.—Yes.

130. But it has. Here is the tariff [showing it].—I was not aware of that. It is not generally known.

131. How much of James's blister is sold in the colony relatively to your own?—A hundred to one. Mine is not sufficiently known, and James's larger pots mislead the public.

132. Does not much of the success depend on advertising?—Yes; but James's has been well-known for many years. I sell mine cheaper than his, and, if the duty were raised to 50 per cent., he could still compete with me. I pay 15 per cent. duty on my crude drugs, but I do not complain of that. The country must be taxed. What I recommend is, that a duty of 75 per cent. or 100 per cent. should be placed on the manufactured article. I cannot say whether veterinary surgeons recommend James's powders. I dare say they do. They recommend mine if they know it. Veterinary surgeons commonly recommend such patent medicines as blister, because they can be speedily applied.

133. *By Mr. Bain.*] The articles that I produce are rheumatic-balsam, and cough-syrup. These medicines are commonly known. I have also, for horses, colic or gripe drink, an embrocation, condition-powders, worm-powders, grease-ointment, blister-ointment and hoof-oil, and I have also a powder for distemper in dogs. There is always a certain amount of professional jealousy operating against my medicines, but I know that they are largely used all over the colony. It pays me to sell my blister even at 25 per cent. below the price of James's. One ingredient used in it, cantharides, costs

me 50 per cent. or 60 per cent. more than what it costs Lieutenant James at Home. The price in England is 3s. or 4s. a pound, and here I pay 9s. or 10s. a pound. I have inquired about the manufacture of pots, and cannot get them nearly so cheap as at Home. This remark applies to bottles also. I have only got certificates of the success of my rheumatic-balsam for publication. This has helped the sale. My horse-medicines do not need such certificates, my reputation is well-known. The only way in which I could be assisted would be by imposing a duty of 75 per cent. or 100 per cent. on the imported article. If that were done, James's blister, for instance, would not be sold for a higher price than it is now; but he would not send so much. He would only supply orders; he would not send out consignments. Dealers would keep it and supply it to those who inquired for it. I should then have a chance to sell my preparations.

134. *By the Chairman.*] The imported ingredients of my preparations are only the smallest part, but much the dearest. I cannot tell without preparation the value of the whole quantity of drugs and other materials that I import in a year. My business varies, and is only in its infancy. If the duty on the crude materials were abolished and the duty of 25 per cent. left on the manufactured import, that would be all I could expect. It would amount to the same thing as raising the duty on the manufactured article. If the duty were raised to 100 per cent., I do not think I should raise the price of my preparations. I should look for my advantage to an extended sale. I think the tins which I use cost me more here than the pots cost Lieutenant James at Home. It would pay me to import the pots, got up properly, if I had a large-enough business to enable me to get a large quantity at once.

No. 95.

Mr. JAMES NEIL, Medical Botanist, to the Chairman of the Local Industries Commission.

GENTLEMEN,—

Dunedin, 20th May, 1880.

I am very sorry that I did not meet with you, at your kind invitation, while sitting at Dunedin. The matter which I wish to bring to your notice has no doubt been presented to you before this—namely, that colonial manufacturers of medicine have to pay the same rate of duty on their raw materials as on manufactured goods: thus I have to pay 15 per cent. on dry herbs and other ingredients used in the manufacture of my various preparations. I have now five hands employed in the sale and manufacture of pills, dandelion-coffee, and other preparations. I hope, gentlemen, that you will see your way to recommend the abolition of duty on raw material, and, if necessary, add to the

I have, &c.,

JAMES NEIL.

FISHERIES, ETC.

No. 96.

Mr. R. SCOLLAY to the Chairman of the Commission on Local Industries.

SIR,—

Bluff, 12th April, 1880.

I have the honor to inform you, in answer to your communication referring to local industries, that—1st, there are three saw-mills in active work at Stewart Island; 2nd, there are fourteen fishing-cutters as well employed. Owing to steam-communication between the Bluff and Dunedin being less frequent and more uncertain lately, fish and oysters—the latter more particularly—have to be sent by railway; but this mode of transit is very expensive, being at least three times the cost of carriage by sea—namely, fish and oysters, per sack to Dunedin from Bluff, 1s. 6d. by sea, 5s. by rail. The effect of this charge is depressing to the fish trade here, and, unless it is remedied, will operate against a large centre of population like Dunedin being supplied with fish, unless at rates so high as to limit materially the quantity consumed.

I have, &c.,

R. SCOLLAY.

No. 97.

Mr. THOMAS THOMSON to the Chairman of the Royal Commission on Local Industries.

SIR,—

Bluff Harbour, 13th April, 1880.

I have not a very intimate acquaintance with some of the industries which are and may be carried on in this part of the colony, but trust that my remarks may be of some use to the Commission.

Fishing, in its various branches, deserves attention. *Whaling*.—For carrying on this pursuit, there are few places so well situated, both for proximity to the grounds, and there being safe harbours in nearly every direction, in which the vessels can run for shelter or to cut in their whales. The sperm whale is very plentiful off the south-west end of the Island, and whaling vessels from all quarters frequent these grounds, generally carrying off good catches. This industry has from time to time been carried on from this port, and lately an enterprising firm (Messrs. Nichol and Tucker) had one vessel out, which was very successful; but, in consequence of the fall in the price of oil, they have been obliged, for the present, to abandon it. In consequence of the heavy outlay in fitting out a whaling vessel, and the great loss if unsuccessful, the risk is rather too great for one small firm; but I think that a company with several vessels should make it pay well. It has been suggested to protect the fishing near the coasts, but I do not think this would be a wise step, because the other colonies might retaliate, and shut our vessels out from their grounds. *Oysters and Fish*.—There is a large trade carried on in these, but the carriage by rail to the northern places militates very much against its development. I am of opinion that an exceptionally low rate should be levied on all such very perishable goods, and, as formerly, a train started from the Bluff every morning, to reach Dunedin the same day. Fresh fish could then be delivered all along the line in good condition. *Pawa-shells*.—There has of late sprung up a consider-

able industry in these; but the fish itself is made little or no use of, owing to the want of knowledge of how to prepare them for any market, although there are several ways of preparing them, and several markets open. If this could be thoroughly ascertained, I have no doubt additional encouragement would be given to the enterprise. *Crayfish* are also very abundant in the West Coast sounds. There are various ways of preparing them for the Chinese market. I have seen the Chinese drying them in the sun and on ovens, after parboiling and taking the fish out of the shell, and cutting it up into small pieces.

Timber.—This trade has fallen off very much of late here, no doubt owing to the general depression of trade, but partly owing to the cost of getting the timber to a port of shipment. I think a special tariff would give a great stimulus to this important industry. A small reduction would sometimes allow a trade to be carried on when otherwise it has to be abandoned.

Native Flax.—This product is growing in abundance everywhere, but, from the absence of any effective means of preparing it for the market, a remunerative price cannot be obtained for it. Much time and money have been expended in endeavouring to discover some effective and economical means of preparing it, but without success. The beneficial results of such a discovery would be so great that I think the Government would be justified in offering a substantial reward for such discovery. While on this subject I may mention that some years ago, when the flax-dressing was taken up with vigour, I designed a current-wheel to utilize the power of the rapid rivers on which much of the flax grows. Such rivers as the Waiau and the Molyneux I look upon as immense power running to waste for want of convenient and effective means of utilizing their force. This wheel is admitted by experts to thoroughly overcome the "backwash," which, with ordinary wheels, destroys two-thirds of the power of the current. It also provides for the rising and falling of the river, so common in this colony. It would be a very cheap motor, and could be applied to many uses, such as raising water for irrigation, driving flax-mills, agricultural machinery, and, with wire-ropes, could be carried to considerable distances over the country. I published a description for the benefit of any who might give it a trial, but I am not aware that any one has done so. As a rule, people are very slow to see the advantage of anything new.

Patent Laws.—It must be well known that the patent laws of America have given immense stimulus to invention, and that the nation has profited by it; and it must also be well known that those of Britain and her colonies have had the very opposite effect. I therefore think that the present law should be entirely repealed, and a simple and cheap means devised for making an invention the property of the inventor. It is a fallacy to suppose an inventor can impose on the public; because the public will not use a bad invention, nor are they obliged to use a good one, nor to give more than its value if they do. This is, unfortunately, too well known to those who have had experience in bringing out new inventions. Even when successful, large amounts of money have to be expended before any returns come in; and in ninety-nine cases out of a hundred they come to nothing, or remain so long unappreciated that they are no benefit to the original inventor. This has been the case with many of our best inventions. I therefore see no reason why a tax should be put upon them in the first instance. If a tax is desirable at all, let it be imposed when the inventor comes to make a profit by it. I think that a simple *Gazette* notice, giving a clear description of the invention, should be all that is required, the Government stamping one, to be held by the inventor as his title. If any one can produce a prior notice, of course the second would be void, and the inventor would have to put up with the disappointment. Were this the case, an inventor would take care not to expend money on his invention before he ascertained whether he was the first or not. I see no reason why the Government should know anything about the merits of the invention; the public will soon find them out before adopting it. What brought this view of letters patent to my notice was, that I have now in my possession three British patents and one colonial one; also newspaper notices of inventions which I did not patent: and these notices are of as much use to me in proving that I am the first inventor as the elaborate documents of letters patent; and the common law would be able to decide as easily from the evidence of the one as the other. I think the subject can be reduced to great simplicity without injury to any interests. It has been said that the manufacturers cannot improve their machinery without being liable to having some one, unknown to them, taking out a patent for the improvement, and coming on them for infringement. If they had only to give notice of the improvement, as I suggest, they could do so without trouble, such as going through the ordeal of taking out a patent. I have now, besides those patents, some seven inventions, all of which I have reason to believe are new and useful. I might give them to the public; but the result would likely be that the public would not get the benefit, as some more wealthy person in a position to push them may take out a patent for them.

Trusting you will excuse this from an unsuccessful patentee (so far as the returns are concerned),

I have, &c.,

THOMAS THOMSON.

No. 98.

Mr. CHARLES TRAILL to the Chairman of the Royal Commission on Local Industries.

SIR,—

Stewart Island, 30th April, 1880.

After despatching the note which I had the honor to address to you on the 1st instant, I wrote to procure, if possible, some useful information from those most largely engaged here in saw-milling and fishing. I have, however, failed to elicit any information or suggestions of any value. With regard to the fishing and oystering industries here, the chief reason probably that they do not flourish more is, that there is but a limited demand either for fish or oysters. An idea seems prevalent that these industries have derived little or no benefit from the Middle Island railways owing to the high rates charged, and that if the carriage by rail were reduced, so that fresh fish and oysters could be conveyed quickly and cheaply to the various centres of population, the consumption and demand would greatly increase, especially if the "empties" were returned at a mere nominal cost or free of charge. The other Stewart Island industries, as I mentioned in my former letter, are saw-milling, sealing, mutton-birding, and haliotis-fishing, known as paua-ing ("paua" being the native

name of this species of haliotis, a mother-of-pearl shell). With regard to these, I have no suggestion to offer. The building of boats, cutters, and schooners has been carried on for many years, but in such a desultory way that this cannot yet be ranked among our settled industries. I think, however, it would be difficult to find in New Zealand (except, perhaps, in the neighbourhood of Auckland) a more likely place than Paterson Inlet for such an industry to take root and flourish. Suitable sites and sufficient shelter and depth of water can be easily selected. The shores of the Inlet are fringed for miles together with abundance of rata excellently adapted for timbers and knees. Trees suitable for masts and spars are in fair abundance; while as to sawn timber, required for planking, deck-beams, and fittings, we have red pine, white pine, and totara of superior quality, all now to be had conveniently from saw-mills in the Inlet or adjoining bays. We have here large quantities of seaweed, which might be turned to profitable account by being turned into kelp as a source of iodine, a substance much employed, I understand, by photographers, and also used medicinally. Gold-digging has been occasionally prosecuted by small parties of men, sometimes for months together; and I am told by an intelligent miner, who was so engaged, that £2 per week can be earned in this way without much difficulty. Platinum and garnets are associated with the gold. Silver is known to exist, but I do not know whether the ore is rich enough to make the working of it profitable. There are considerable deposits of titaniferous iron-sand. A deposit of kaolin, as mentioned by Captain Hutton, has been discovered in Stewart Island, in connection with which, as showing that we have several of the conditions essential to the successful manufacture of porcelain, it is interesting to know that feldspar is found in abundance at Port Adventure, also that much of the sand on the beaches is of a sharp quartzose character. I do not know of the existence of other valuable minerals, but it seems likely enough that many may yet be found, as only a very small portion of our shores has yet been examined (as far as I know) by any geologist or mineralogist of note, while much of the interior is still a *terra incognita*. I suspect there is no other part of New Zealand, of equal extent, of which so little is known. As we have geologists of standing in the colony, and the lighthouse-steamer is employed occasionally very near our shores, I trust we may have a scientific examination made of at least our coast-line rocks at no distant date.

I have, &c.,

CHARLES TRAILL.

No. 99.

Mr. J. A. MORGAN to the Honorable John Hall (forwarded to the Chairman of the Royal Commission on Colonial Industries).

SIR,—

Christchurch, 11th June, 1880.

I have a suggestion to make to you, which I think you will be pleased with. It is a scheme which will give several hundreds of the unemployed work, and would bring a handsome return to the Government on a very small outlay. It is to establish a large fishing-station in one of the sounds near D'Urville Island, where, as you probably know, there are very great quantities of fish of all sorts, which should be dried and prepared something after the same style as haddock; they could also be salted in barrels for export. There are also large quantities of black-fish and porpoises, from which large quantities of oil could be extracted, which obtains a price of about 4s. a gallon. The outlay required for two such stations, with boats, huts, and boiling-down apparatus, would not exceed £3,000 or £4,000, and, I think, would materially benefit the country (as fish is very high in price), and would probably bring in a handsome return to the Government, and at the same time open up the country about the Sounds. The townships would be completely self-supporting in a very few months. I should be glad to assist you in getting all the necessary apparatus and putting the scheme in working order, should you think fit to adopt it.

I have, &c.,

J. A. MORGAN.

FISH-CULTURE.

No. 100.

Evidence of Mr. A. M. JOHNSON before Mr. Commissioner A. J. Burns, at Opawa, 19th April, 1880.

My name is *Andrew M. Johnson*. I have been about fifteen years resident in Canterbury. I was a farmer in England, near Birmingham, and then carried on fish-culture for amusement; in fact, I was amongst the earliest who started fish-culture in England upon the present system. I came to this country with the intention of following up fish-culture as a means of livelihood. I was eleven years managing the Acclimatization Society's grounds near Christchurch, and left there on account of the ill-will displayed towards me by the secretary. I have started fish-culture on this spot entirely at my own cost. I made this selection as being, in my opinion, the most suitable place to carry on the business. I have been here four years. I have been very successful—even more so than I expected, under the circumstances. I get a ready sale for my young fish, principally in the North Island for stocking purposes, not for eating. I sell to public bodies, and also to private individuals. In one season I hatched out 30,000 salmon. I got the ova from the Wellington Society in the North Island, on the condition that I was to retain the half of the number hatched. I was very successful; I had 50,000 eggs, and reared 30,000 young fish. About 16,000 fish I returned to the Society from whom I received the ova. Of the remainder, I have sold a few, a number got out of the ponds during a flood in the Heathcote—I should say nearly 6,000 fish escaped in this way—a few of the large ones died during the hot weather last summer, and I have the remainder on hand. In connection with salmon-hatching, I purpose erecting a salt-water aquarium for the purpose of breeding. By this means I hope to have always a stock of eggs and young fish on hand, without the necessity of the old fish returning to the ocean. I have hatched out many thousands of young trout every season. Last season, 7,300 young fish were sent up in one lot to Wanganui, in the North Island; out of this lot only thirty-six fish

died in transit. These fish were sold at 80s. per 100 here. I have had several consignments of trout and whitefish-eggs from America at my own expense. Out of these consignments I was only successful with one lot of each kind of fish: that is, the eggs came to hand in bad order; I have been very successful with the ova that arrived in good condition. In order to make my business a complete success, it is necessary that I should obtain permission to capture fish and collect ova during the closed season; but only for the purpose of procuring the ova—this operation does not necessarily imply the killing of the mother-fish. On 21st February I wrote to the Colonial Secretary (copies of these letters and the reply are appended); but, owing to the determined opposition of the Canterbury Acclimatization Society, the Government refused my request. This I consider very tyrannical and unjust, as, owing to my labours here, a number of the rivers are stocked with my fish; also when the flood liberated the fish from my ponds. I am only having returned to me what was liberated by accident. Besides, it seems to me that the intentions of the original promoters of the introduction of fish-ova into this country will be carried out by assisting those who enter into this matter as a business, and thereby the public will be greatly benefited by any assistance given me in prosecuting my labours. The months during which the fish spawn are now approaching; and, if the Commission could in any way assist me to get the required permission to procure the ova, not only would it be a great personal boon to myself, but a great benefit to the public. Pray remember that I came to this country expressly to attempt fish-culture as a matter of business. I have never received any assistance from Government in a pecuniary way; but I received some of the whitefish-ova lately imported by Government, and have hatched them very successfully. Nor have I asked or obtained any assistance from any one. Therefore it seems very hard that my efforts in this local industry should be hampered by a refusal to permit me to procure eggs during the breeding-season, for the carrying-on of my business. I should mention that I brought out the first English trout to this colony at a cost of about £70, all at my own risk. I also rear English perch, American brook-trout, gold and silver fish; and have been very successful with all of them.

A. M. JOHNSON.

Mr. A. M. JOHNSON to the Hon. the Colonial Secretary.

SIR,—

Trout Dale Farm, Opawa, 4th February, 1880.

I beg to apply for permission, under the Salmon and Trout Act, for authority to capture trout and salmon in the Canterbury rivers for the purpose of artificial propagation. From the consent so willingly accorded me last year by the Otago and Southland Societies, you will see that there can be no reasonable objection. The collecting of eggs such a distance from home would entail upon me considerable additional expense, besides loss of time and risk to eggs. The only refusal from either public or private parties was from the Canterbury Acclimatization Society; but, from the resolution on the subject, and the letters of the secretary (Mr. Farr) trying to deprive me of the honor of having introduced at my own expense the first trout into New Zealand, and his endeavours to prevent me receiving any portion of the whitefish-ova, you will see the animus displayed, and understand the value of such a refusal. I have incurred considerable outlay in the purchase of land, and the construction of suitable hatching and rearing appliances, for the express purpose of artificial fish-propagation. During one season 70,000 trout and salmon were hatched out at my establishment, whilst last winter between 5,000 and 6,000 two-year-old salmon, seven and eight inches in length, and several hundred large breeding trout, were liberated in the Heathcote River by a flood. The permission asked for, therefore, amounts in other words to permission to capture my own fish (without injuring them) for the purpose of stocking rivers, chiefly in the North Island. Hoping to receive an early reply,

I have, &c.,

A. M. JOHNSON.

Mr. A. M. JOHNSON to the Hon. the Colonial Secretary.

SIR,—

Trout Dale Farm, Opawa, 21st February, 1880.

As the Acclimatization Society have decided "That, in the interest of fish-culture and the stocking of the public streams with fish, it is not desirable that leave should be given me to capture salmon and trout for the purpose of artificial propagation," I beg to submit the following remarks: It is now about thirteen years since the first trout were imported into Canterbury by me at an expense of nearly £70, since which time the multiplying and distributing process has been going on, until the rivers in Canterbury are now well stocked, in some parts so abundantly that hundreds of thousands of eggs are destroyed by different pairs of fish making their nests in the same spot. If the eggs are obtained in a skilful manner and at the proper time little or no injury is done either to fish or eggs, whilst in some instances the river itself is greatly benefited. It is only a few localities in some rivers that are adapted for obtaining ova for artificial propagation, and except under very favourable circumstances eggs obtained from fish contained in private ponds are unsuited for the purpose. The wording of the Salmon and Trout Act might easily be interpreted to prevent any one capturing salmon or trout with a net in any water whether public or private. For several seasons a certain member of the Society has tried to prevent me obtaining ova even from private waters, and last year threatened me with prosecution, notwithstanding I had permission of the owner, whose land extended to the water side. The refusal of the asked-for permission would therefore practically prevent me carrying on the fish-propagation and the stocking of the rivers in the North Island. Although many importations of salmon ova have been received into Canterbury, the eggs were all imported at the expense of the late Otago Government and the present General Government. The Society can therefore claim no exclusive right to these fish, so as to prevent their propagation and distribution to other rivers. In America it has been found necessary to resort to the artificial propagation for the purpose of re-stocking the rivers, and great encouragement is given to those who enter into the business by grants of suitable land, water-rights, and privileges, &c., and so much on every fish reared and liberated in the public waters. In Canterbury a society still supported by public money in the shape of license-fees, &c., competes with me in the sale of fish, and persistently strives to injure and prevent me carrying on fish-propagation. No one has worked harder or spent more of his money in building up the Society than I have, yet when I reflect on the public money wasted and mistakes made in fish culture alone by the

Society, I consider my money and time to have been uselessly thrown away. Such a result has chiefly been brought about by the misrepresentations and jealous ill-will of the Secretary, Mr. Farr. I would therefore ask you to take into consideration whether the interest of fish-culture would be best promoted by granting such a society as the above an exclusive monopoly of fish-culture, or whether public interest would not be best furthered by granting equal privileges to a private individual carrying on the business at his private expense, and whose interest lies in the preservation of the fish throughout the Canterbury district in particular, and their successful distribution to the whole of the rivers in the colony.

I have, &c.,

A. M. JOHNSON.

SUGGESTED CORRECTIONS and ADDITIONS, as conveying a more accurate impression.

My leaving the Society was brought about by the persistent jealous ill-will of the Secretary, Mr. Farr, who on many occasions since has exhibited the same affectionate disposition, notably that of violently depriving me of a box of English salmon ova presented to me by the late Otago Government.

My chief business is done with the North Island on account of the success so invariably achieved in the transport of the live fish, whilst so many losses have been sustained by the Society in their efforts to transport the fish to distant localities.

It is felt to be a hardship that, in carrying on the business of fish-propagation, I should be stigmatized by the Secretary of the Society in the local papers as a "poacher;" and that the Government should be led by the Society into giving colour to such a slander by refusing me permission to obtain ova.

The subscriptions to the Society have for many years dwindled down to a very small amount, the feeling being general that its especial work is now accomplished. Its revenue is derived from the various license-fees and fines, so that it is no longer a private society, and therefore it is unjust and injurious to the public interest that such a Society should be made the medium of competing with and injuring private enterprise.

A. M. JOHNSON.

Mr. G. S. COOPER to Mr. A. M. Johnson.

SIR,—

Colonial Secretary's Office, Wellington, 1st March, 1880.

I have the honor to acknowledge the receipt of your letter of the 21st February, and, in reply, am directed by the Colonial Secretary to inform you that, in face of the objection of the Canterbury Acclimatization Society, the Government do not feel justified in giving you permission to capture salmon and trout in the Canterbury rivers for the purpose of artificial propagation.

I have, &c.,

A. M. Johnson, Esq., Opawa, Christchurch.

G. S. COOPER.

No. 101.

Mr. S. C. FARR, Honorary Secretary, Canterbury Acclimatization Society, to Mr. Commissioner A. J. Burns, Christchurch.

SIR,—

Christchurch, 22nd April, 1880.

In reply to your question of yesterday, in reference to Mr. A. M. Johnson's accusation against the Canterbury Acclimatization Society, I may say that the injustice he endeavours to make out is purely imaginary on his part. In saying this, it would be well for you to know that I have held the office of honorary secretary to the Society for the last twelve years, consequently I have been in contact with the Curators more than any other member of the Society, therefore am better able to give a true version of the state of affairs during that time. There are members of the present Council who were among the gentlemen who founded the Society, and, did time permit, I am confident that I could procure evidence from them to prove that the Society continued Mr. Johnson's services as Curator until it was impossible to bear with his constant vagaries, by which the Society's funds were actually being wasted; so much so, that the public withdrew their subscriptions (amounting to between £300 and £400 annually until about the end of the tenth year of the Society's existence), from which time subscribers declined paying, complaining that their money was thrown away. And, further, when the Curator was instructed to "do this," or "not to do that" work he refused to obey, and attempted his own experiments, which invariably terminated in failure: in fact, the public moneys were being frittered away by an insubordinate officer; hence his dismissal. And now as to the imaginary injustice—and here I wish the Commissioners to understand that the Society carries on the whole of its work *pro bono publico*, while Mr. Johnson's matters amount only to private enterprise and pecuniary benefit to himself; apart from which, such liberty would establish a precedent for other applications, hence the objections of the Society to his entering public waters for procuring ova of any of the fish imported and liberated by the Society, either by its own funds or by grants from the Provincial or General Governments. On these grounds the objection is based, and from the known fact that, if ova is disturbed in the redd, the majority of them are carried away by the current into places where they cannot be hatched and must perish.

In reference to his vaunted claim as being the importer of the first trout and perch into New Zealand, I append to these remarks a copy of a letter sent by me to the Hon. the Colonial Secretary, and founded, as that is, upon facts from sources therein mentioned, it will, I trust, be sufficient evidence to prove to the Commissioners the value of Mr. Johnson's statements.

I have, &c.,

S. C. FARR,

Honorary Secretary and Treasurer.

Mr. S. C. FARR to the Hon. the Colonial Secretary, Wellington.

SIR,—

Christchurch, 11th January, 1879.

I have the honor to inform you, in reply to your communication of the 29th ultimo, that a special meeting of the Council was convened to consider the important matter contained therein, and after considerable discussion the following resolution was unanimously agreed to—namely, “That a letter be sent to the Colonial Secretary stating that, in the interests of fish-culture, and the stocking of the public streams with fish, it is not desirable that leave should be given Mr. Johnson.” I may also add, as a proof that we are doing all we can for the benefit of the public, that last season the Society distributed gratuitously the large number of 22,000 trout in the public streams of the Provincial District of Canterbury; and the Society intends to continue the gratuitous distribution as long as it has funds to carry on the work: thus it will be patent that giving permission to Mr. Johnson would interfere seriously with such a project. I should here take the opportunity of referring to a letter from Mr. Johnson to the Minister for Public Works, dated 6th February, 1878, *re* American whitefish, published in the papers, relative to the introduction of salmon and whitefish ova, and presented to both Houses of the General Assembly in 1878. In the latter clause of his letter he states “that English brown trout and English perch were first introduced into New Zealand at his expense.” To this statement I am prepared to give a most emphatic contradiction, based upon the following facts, culled from the proceedings of the Society in the fourth annual report, and also from the minute book. In the latter I find it recorded, on the 23rd August, 1866, that a long letter was read from Dr. Officer, of Hobart Town, stating, “that the Commissioners were now enabled to offer the Society a supply of trout ova, if a suitable person could be at once despatched to fetch it.” This letter was unfortunately delayed, through some unknown cause, until too late for that season; but a letter was written to him stating “that the Society would take steps another year to avail itself of the offer, and arrange for the safe transit of the ova to New Zealand.” The minute-book of the Society’s proceedings for the year 1867 was unfortunately lost at Mr. Johnson’s house in some unaccountable way; but I find in the report of a meeting held 22nd May, 1868, the following record: “The acclimatization of salmon and trout in Tasmania having been satisfactorily effected, the idea of obtaining ova thence was long and anxiously deliberated upon by your Council in July; but the motion of Mr. Davie to send at once for them was deferred. However, on the 27th of that month the Curator (Mr. Johnson), hearing that the ponds would be ready before the ova could arrive, a special meeting was called for 9th August, when an offer from the Curator was made to go to Tasmania at his own expense, he being allowed a bonus on every fish successfully hatched, and it was resolved that a bonus of £1 be given him for every fish (salmon or trout) which he might rear to be six weeks old. But, looking to the responsibility which Mr. Johnson assumed, the Council agreed to advance him £30, to continue the payment of his salary as heretofore, and to provide, at the Society’s expense, a man to watch and work in the gardens during his absence. The Curator ultimately proceeded to Tasmania, and procured a quantity of trout ova, being unable to procure any salmon ova, from the fact that no fish had been captured. The experiment was not successful, only three fish having been hatched, owing, as your Council believe, to the fact that no sailing vessel was obtainable to bring the ova direct. It will scarcely be necessary for me to add that sufficient private streams exist in the Canterbury District, well supplied with trout, from which Mr. Johnson may obtain all the trout ova he requires, provided he obtains the sanction of the owners; but, in reference to the salmon, this Society would not themselves, under any circumstances, at present venture to capture a single fish, lest their efforts to establish themselves, hitherto successful, might be frustrated. I would point out that the work performed by the Society has been done out of its funds alone, and that it can only look upon the application of Mr. Johnson as that of a man desirous of securing private benefit at the public expense, especially as he is now offering to forward to the Sydney Exhibition American salmon eighteen months old. I trust that sufficient evidence has been adduced to prove that the statement made by Mr. Johnson in the communication referred to above was utterly without foundation, and that this “well-known Pisciculturist” has not the claims upon the Colonial Government which his communications would imply.

I have, &c.,

S. C. FARR,

Hon. Sec. and Treasurer.

The Hon. the Colonial Secretary, Wellington.

No. 102.

Mr. J. A. R. MENZIES to the Chairman of the Colonial Industries Commission.

SIR,—

Dun Alister, Wyndham, 22nd May, 1880.

In reply to the inquiry for some information with reference to the naturalization of salmon in the colony, and their prospective value as a source of wealth when the rivers shall have been fully stocked, I may first remark that 3,300 fry of *Salmo salar* have been placed, at different times—in 1875, 1877, and 1878—in the River Aparima, in Southland (App. H. of R., H.—11, 1878), and that many thousands of the fry of Californian salmon (*Quinnat*) have been placed in rivers in all parts of the colony; for example, within my own knowledge, 67,000 in the Oreti and its tributaries, and 10,000 in the Waipahi, in 1877 and 1878 (*Ibid*). These fish cannot be considered naturalized until it can be proved that they have bred in the rivers, and no evidence of that has yet been furnished. Seeing, however, that brown trout have thriven and multiplied in a remarkable way in rivers in all parts of the colonies, it may be assumed that the conditions are favourable to the propagation of Californian salmon in both Islands, and of *Salmo salar* in the colder and therefore more congenial waters of Otago and Southland; but until it can be unequivocally shown that they have bred in our rivers the importation of ova of the latter kind from Britain should not be discontinued.

In the earlier experiments the expense of introducing from the mother-country was considerable, and the risk of failure very great. The establishment of a line of large Australian steamers has partly reduced the expense of transmission, and materially lessened the risk of failure. A few cases could be brought at a very moderate expense in the icehouses of the vessels on every trip during the proper

season. Salmon ova can now be shipped in England in one of these steamers at about £4 per thousand delivered on board, with a guarantee that 80 per cent. are vitalized. The cost of bringing them from Melbourne would consist chiefly of the expenses of the person sent for them, and that would be avoided if the proposed line of steamers from London to New Zealand should be established.

After the salmon had begun to breed in our rivers the necessity for importing ova would cease; but in order to stock other rivers in the colony it would be advisable, if not necessary, to establish breeding-ponds, and continue to breed from ova of the fish which had been naturalized. The cost of building and forming breeding-houses and ponds should not exceed £400 or £500; and thereafter the chief expense of such a permanent establishment would be the salary of the Curator.

The advantages of artificial fish-breeding and the necessity for continuing it permanently in order to maintain a full supply of mature fish are generally recognized in Europe and America. Sir Humphrey Davy tells us that out of 17,000 salmon ova only 800 came to maturity as salmon—that is, about 5 per cent. of the ova. We are better informed on the subject now. In 1852 Mr. Buist and Mr. Ashworth say that, under these circumstances, about 1 in 1,000 come to maturity as adult fish; and in 1861 the same gentlemen say “that the percentage of success should be estimated at 1 in 3,000”—an opinion in which another authority, Mr. Fennell, concurs. Whereas the percentage of success at the Stormont Field Ponds in 1853 was 90 per cent., according to Mr. Buist. The Stormont Field Ponds were established in that year beside the Tay, and placed under the charge of Mr. Buist. Writing in 1866, he says, “from the experience of upwards of fifty-five years on the Tay and several other rivers, I would strongly recommend to all proprietors of salmon fisheries to follow the example now set by the Tay proprietors in regard to pisciculture, the outlay being trivial, and the benefits that may ultimately accrue being very great.

In proof of the correctness of these views Mr. Buist gives the following as the increase of the rental of the Tay since 1853: 1854, £9,269 6s. 5d.; 1855, £9,977 13s. 5d.; 1856, £10,199 10s. 4d.; 1857, £10,772 0s. 5d.; 1858, £11,487 2s. 5d.; 1859, £12,834 14s.; 1860, £13,827 10s. 7d.; 1861, £14,109 15s. 7d.; 1862, £14,080 12s.; 1863, £14,232 16s. 6d.; 1864, £16,742 5s. 2d.; 1865, £17,618 0s. 7d.; and the rental in 1877 was £20,000, as Mr. Young, the Commissioner of Scottish Fisheries, states in 1877.

The same writer states that Mr. Ashworth, of the Galway fisheries, by removing obstructions to fish ascending, lengthening the close-time, and by artificial propagation, increased the rental of his fishery tenfold in as many years. The following will give an idea of the increase of the number of salmon taken: In 1853, 1,601; in 1855, 5,540; in 1858, 9,639; in 1861, 11,051; in 1864, 20,512.

Artificial fish-breeding is carried on in France, and also, but on a much larger scale, in America. The report of the Californian Fish Commissioners, republished in the New Zealand Appendix to Journals of the House of Representatives, H.—11, 1878, shows what is being done in that State, and it appears that in many, if not in most, of the States of the Union artificial fish-breeding is carried on in friendly rivalry, and by the aid of votes of public money. Mr. Livingston, United States Assistant Commissioner of Fisheries, writing on 11th March, 1880, in “Forest and Stream,” with reference to a dam maintained from July to September on the McCloud River by the United States Agent, explains that it is constructed to arrest gravid fish ascending the river, and goes on to say, “Nearly all are caught, and the spawn is saved and artificially hatched; every year 2,000,000 young salmon are returned to the tributaries of the Sacramento; this number is probably fifty times as great as the number of young fish that would be produced naturally by the salmon themselves that are stopped at the dam, and twice as great as the number that would be produced by all the parent salmon in the river.”

In Canada the Government has seven fish-breeding places established; and the report of the Canadian Fisheries Commissioner for 1877 states that in the spring of that year there were distributed from these places—of fry of *Salmo salar*, 5,451,000; Californian salmon, 7,000; whitefish, 7,000,000; and in the autumn of the same year they laid down in their breeding-boxes—ova of *Salmo salar*, 6,004,000; *Quinnat*, 40,000; whitefish, 23,500,000.

Thus it appears that in America, where the rivers until of late teemed with fish, the continued over-fishing leads to the apprehension, if not of their extermination, at all events of the working-out of the large export trade in salmon, unless steps are taken for their protection, and for their multiplication by artificial propagation. Even on the Fraser River the fish are decreasing in number so quickly that the residents there urge the Canadian Government to establish a fish-breeding place in that locality. Other illustrations might be quoted from writers on the subject to show that, by artificial propagation, the supply can be maintained to meet the ever-increasing demand for a favourite article of food. And the high importance to the colony of establishing such a productive industry will be apparent on considering the value of the annual production in countries where the salmon abounds; and, as regards the United Kingdom, it has a special value beyond this in the occupation and training it affords to a large number of hardy fishermen.

In his report on English salmon fisheries for 1876, Mr. Buckland gives a return of the salmon sold in Billingsgate, from all quarters, from 1865 to 1875. He says, “Taking the year 1874 for example, in it 32,180 boxes of 112 lb. each were sent from Scotland. Reckoning the value at £10 a box gives a sum of £321,800 as the money-value of the Scottish salmon sent to the London market alone in a single year; and, assuming 12 lb. as the average weight of a fish, we get the number of 300,346 salmon.”

Mr. Young, the Commissioner of Scottish Fisheries, says, “In a letter from Mr. Caird, Chief Commissioner of British Fisheries in 1868, published in Mr. Ashworth’s ‘Salmon Fisheries of England,’ he estimates the annual value of the river fisheries in England at £30,000; in Ireland, £330,000; in Scotland, £200,000: £560,000.” “Whereas,” says Mr. Young, in “Salmon Fisheries,” “taking the value in the last reports of the English and Irish Inspectors, and adding the very moderate estimate I have made for Scotland, we find—England, £100,000; Ireland, £400,000; Scotland, £250,000: total annual value, £750,000.” Mr. Young then gives a table of the number, weight, and value of the boxes of salmon sent to Billingsgate Market from 1834 to 1875, both inclusive. From this table, which gives the information in detail, it appears that the supply has fluctuated very much in these years,

ranging from about 2,500,000 lb. to 4,500,000 lb. annually. The chief supply came from Scotland, which sent about two-thirds of the whole, and Ireland, which sent about one-fourth. Mr. Young goes on to say, "During the first seven years in the above table the average number of boxes of salmon sent from Scotland to London was 26,107; during the second period, 29,011; and during the third period, ending 1854, 18,210; while during the last seven years, from 1869 to 1875, the average number was 24,478. It is perhaps worth noticing, in connection with the above, that the total number of boxes of salmon exported from Ireland in 1875, according to the statement of the Irish Inspectors—namely, 44,274½—exceeds the total number of boxes delivered at Billingsgate in any one of these forty-two years."

In a paper read on 30th March, 1880, at a meeting of the "American Fishcultural Association," it was stated that there were sold in Fulton Market, New York, of fish belonging to American waters—from March, 1878, to March, 1879, 33,529,600 lb.; from March, 1879, to March, 1880, 34,276,666 lb.

I shall give only one other illustration of the extent and value of the salmon trade. In the Californian Fisheries' report referred to above it is stated that the quantities of salmon sent to San Francisco from the neighbouring rivers were as follows: From 1st November, 1874, to 1st August, 1875, 5,098,781 lb.; from 1st November, 1875, to 1st August, 1876, 5,311,423 lb.; from 1st November, 1876, to 1st August, 1877, 6,493,563 lb.

In letters addressed to the Hon. the Colonial Secretary—9th January and 27th February, 1880—to which I have the honor to refer you, and which I have no doubt will be readily submitted for your perusal, some other points connected with the subject are touched upon, amongst others, that of the direct interest which the Government, as the greatest riparian owner of land in the South, has in promoting the naturalization of the *Salmo salar* in New Zealand waters.

I have, &c.,
J. A. R. MENZIES.

Mr. J. A. R. MENZIES to the Hon. the Colonial Secretary.

SIR,—

Dun Alister, Wyndham, 9th January, 1880.

I have the honor to acknowledge the receipt last week of your letter of 11th December, informing me that the salary of the Curator of the Southland salmon ponds will be paid for the present financial year, but that it is not probable that it will be possible to include it in the estimates for any further period. I have also received to-day a telegram from Mr. Cooper, inquiring whether a lease for the land upon which the ponds are situated has been completed. The question of the continued maintenance of the ponds being thus opened up, it may be convenient to refer to their past history and management for a few years.

About twelve or thirteen years ago the Southland Acclimatization Society acquired a lease of this land; then, at a considerable expense, formed these ponds, sent to Tasmania and obtained ova of salmon, trout, and brown trout, reared them successfully, and subsequently obtained a further supply of ova from the same source, and with similar results. The Society was most anxious to naturalize salmon, but, having no adequate funds, it sought to obtain a tract of land as an endowment, the sale of which would enable it to endeavour to obtain salmon ova from the mother-country. The Provincial Council of Southland was applied to, but difficulties arose which obstructed any grant from that quarter. Then an endowment of 2,000 acres was obtained for this purpose by the Act of 1869. The administration of this land was vested in trustees. The Society gave the use of the ponds, and for a time bore a part of the expense, but gradually the management came entirely under the control of the trustees. Their proceedings were fully reported, when in 1876 this fund was exhausted. Then the Superintendent of Otago, Mr. Macandrew—who, sharing in the desire to naturalize the British salmon, had always given his hearty co-operation—and the Provincial Government continued the attempt to introduce salmon, aided from time to time by votes of the General Assembly. Part of the ova were on each occasion sent to the Southland ponds, the trustees agreeing to continue their management. After the provinces were superseded, the General Government repeatedly obtained and sent to the Southland ponds ova of the *Salmo salar* from the United Kingdom, and of the Californian salmon from the United States; appointing five gentlemen to act as Commissioners in the management. In 1876 the Society made over the ponds to the Government, which thereafter sent thither to be reared most of the ova it imported. In the following year the Commissioners learnt that the lease of the ground had expired; and, receiving the sanction of the Government to obtain a fresh lease, they gave instructions to have one prepared; but some uncertainty about the legal tenure caused a long delay, and when the difficulty was solved the owner became involved in the ruin that extended from that of the City of Glasgow Bank, the result being that no lease has been completed. I am now informed that the property will shortly be offered for sale, and an opportunity thus offered to acquire in fee-simple the section on which the ponds have been formed.

The ponds are in excellent order, having been cleaned out and lined the summer before last; some repairs are required on the houses, and the breeding-boxes require renewal, the cost of which, together with repairs to the fence, would, by the estimate of the Curator, be fully covered by the sum of £25. Even now the ponds, &c., are in good working order, and the above small outlay will place all the accommodation in the most efficient state.

If the Government desires to secure beyond a doubt the naturalization of *Salmo salar* it may be requisite to make one or two further importations of ova, in which case, or in event of fish-breeding from any imported ova, it has at its command the services of an officer whose experience as Curator for the last twelve years specially qualifies him to conduct the management, and breeding-houses and rearing-ponds altered and improved from time to time, as defects become disclosed and remedied.

The importance of the industry and its high prospective value when established may be inferred from reading the reports of the large sums realized by the annual leasing of the salmon fisheries in the Scottish rivers, and of the large exports of preserved salmon from California. The Government has now under its control all the appliances necessary to foster this nascent source of future wealth, and it

requires no protective duties to encourage. Perhaps a moderate outlay in establishing these fish in some rivers could not be applied in a manner better calculated to be highly reproductive (see note). When it can be shown that some of the rivers in the South are fairly stocked further importations may be discontinued, for the ova can be easily obtained in such rivers, and when reared in the ponds the fry hatched from them can be sent to other rivers. The Government has a direct interest in promoting this desirable result, for, as, through the operation of the rule of the Survey Department "to reserve one chain of land along the banks of the larger rivers," it is the greatest riparian owner in the South, it will have a prospect of deriving considerable rents from the leasing of the fishings, a profit subject to little deduction, for the fish will find their own food, and the lessees will look after their protection. I trust the Government will not decide upon discontinuing its efforts without due consideration; if they are to be continued it would be advisable to buy the section above referred to.

I have, &c.,

J. A. R. MENZIES,
Chairman of Southland Salmon Commissioners.

NOTE.—The English Commission reported that, in 1863, "The Tay furnished 800,000 lb. of salmon, which was equal in amount of food to 18,000 sheep, and thrice their value." In that year 700 net fishermen were employed on the Tay, whose wages amounted to £9,000. And the rents of four rivers—Tay, Spey, Dee, and Don—were about £40,000.

Mr. J. A. R. MENZIES to the Hon. the Colonial Secretary.

SIR,—

Dun Alister, Wyndham, 27th February, 1880.

I have the honor to inform you that at a late meeting of the Southland Salmon Commissioners the following resolutions were agreed to:—

1. That the Commissioners are unanimously of opinion that a further importation of the ova of salmon from England is required in order satisfactorily to establish them in the rivers of the colony.
2. That the Commissioners trust that the Government will continue its operations and maintain a permanent fish-breeding establishment, until the rivers are stocked, on the present site of the ponds, if that can be retained on reasonable terms by lease or by purchase; but if not in either way on some other suitable place, for the selection and acquiring of which the Commissioners request authority from the Government.

In a former letter to you I had the honor to submit some reasons in favour of its continuance of its fish-breeding operations by the Government, and have now, in support of these resolutions, some further observations to make for the consideration of the Government.

The general progress of the science of fish-culture is extending evidently through the world. In various countries the Governments have established fish-breeding places to stock the rivers and keep up the supply of this valuable article of food; and in others, as in England and France, private enterprise has been both active and successful in the same direction.

A very instructive report by the Canadian Fish Commission for 1877 has lately been reviewed in an Edinburgh newspaper, of which I enclose a slip, and from which a few particulars may be quoted. The report says that nearly every State in the American Union is now aiding the work of fish-culture by public grants and the appointment of Fishery Commissioners. A pleasant rivalry exists among the several States as to which will be the most successful in stocking rivers and supplying a food so generally and highly prized.

The Canadians appreciate the benefits that will accrue to fisheries by artificially breeding salmon, trout, and other fish. The Canadian Government had seven fish-breeding establishments in 1877, which were maintained at a cost, in that year, of £5,000. Mr. Wilmot, the superintendent of these establishments, reports that the number of vitalized eggs in them in 1877 amounted to 30,694,000, which, added to the number of salmon distributed in various rivers in former years, amounting to 28,515,000, make a grand total of salmon eggs and fry up to the end of 1877 of 59,209,000. In the spring of 1877, he says, there were distributed from these places—Fry of *Salmo salar*, 5,451,000; of Californian salmon, 7,000; of speckled trout, 99,000; of whitefish, 7,000,000. The eggs laid down in autumn, 1877, were—*Salmo salar*, 6,004,000; Californian salmon, 40,000; salmon trout, 1,000,000; speckled trout, 150,000; whitefish, 23,500,000. The whitefish, it is said, are bred so extensively to supply the great falling off in the take in Lakes Ontario and Erie.

On the Fraser River, where it might have been supposed the supply would never have been exhausted, the unrestricted slaughter of salmon has created alarm, as it is seriously affecting the extensive export trade in salmon; and the people have applied to the Canadian Government for a grant to erect a salmon-breeding establishment on a large scale on the Fraser River. Now seeing that the supply of salmon in the American rivers, especially in those falling into the North Pacific, where their numbers were astonishingly great, is falling off so seriously that it is considered necessary to have recourse to artificial breeding in order to avert their extermination, how much more indispensable it is in this colony, where we have as yet had no proof that the imported salmon have bred in our rivers, to continue our fish-breeding operations until our rivers are fully stocked. Indeed, the argument goes further, and points to the establishment of Government breeding-places as auxiliaries to the natural operations in maintaining a full stock of fish in our rivers, and we may also gather the further lesson that, when we have naturalized this source of wealth, we should secure its permanence by protecting the fish against capture at improper seasons or by improper means. And the cost of such fish-breeding establishments need not be great; after a suitable site was obtained, buildings erected, and ponds formed, the salary of curator would be the chief item of annual cost. Salmon ova could now be obtained from England at a far less cost than the colony has heretofore paid for them. I have seen an estimate from a gentleman in England who is engaged in fish-breeding, and who has been most successful in sending trout ova to a southern colony. He thinks salmon ova could be delivered on board one of the large Australian steamers at from £3 10s. to £4 10s. per thousand, with a guarantee that not less than 80 per cent. were vitalized. The Commissioners' expression of opinion in favour of the English salmon (*Salmo salar*) is supported by the very marked preference given by the Canadian Commissioners to the *Salmo salar* over the Californian salmon, although, if the merits

of the latter were considered to entitle them to receive equal attention with the former, an abundant supply of Californian ova could easily be obtained. I have the honor to suggest that the Government should refer to the Canadian Fisheries Commissioner's report; it no doubt contains much valuable information.

I have, &c.,

J. A. R. MENZIES,
Chairman, Southland Salmon Commissioners.

EXTRACT from Edinburgh newspaper.

Fish-culture in Canada.

THE advantages which may be derived from the artificial breeding of salmon and trout have been generally recognized for a good many years past, and establishments have been fitted up for the purpose of fish-hatching in various parts of the country. The terrible risks which the young fry bred in the natural way in our rivers run from their numerous enemies are in a great measure avoided by the artificial method, and we can succeed in rearing smolts from at least three-quarters of the vitalized eggs placed in the breeding-troughs; whereas if these eggs had been exposed to the dangers of the river probably at least three-quarters of the fry produced from them would never have reached the smolt stage. There seems little reason to doubt that the productiveness of the Tay has been increased by the smolts from the Stormont Field Ponds, and that the late successful season on Lochleven was in some measure owing to the number of young trout fry put into it by Sir James R. S. Maitland, who has established extensive and admirably-managed breeding-houses and fishponds at Craighend, near Stirling. The Canadians, however, seem to appreciate much more strongly than we do the great benefits which may accrue to the fisheries by the breeding of salmon, trout, and various other fish by artificial means; for we find from the elaborate report by the Commissioner of Fisheries for the year ending December, 1877, and its various appendices, that the Canadian Government has seven breeding establishments in the different provinces of the Dominion, upon which about £5,000 were expended during the fiscal year ending 30th June, 1877. It has likewise a staff of 601 fishery officers of various grades, and a steamer for the protection of the fisheries in the River and Gulf of St. Lawrence. The fish-breeding establishments in the Dominion of Canada are at Tadoussac, Gaspé, and Bestigouche, in the Province of Quebec; at Bedford Basin, in the Province of Nova Scotia; at Miramichi, in the Province of New Brunswick; and at Sandwich and Newcastle, in the Province of Ontario. Mr. Wilmot, the superintendent of these establishments, informs us, in his interesting and valuable report, that the number of vitalized eggs contained in them in 1877 amounted to no less a number than 36,694,000, to which may be added the number of salmon fry distributed to different rivers and waters from them in former years, amounting to 28,515,000, making a grand total of eggs and fry, up to the end of 1877, of 59,209,000. In the spring of 1877 5,451,000 fry of the *Salmo salar* were distributed from these establishments, 7,000 fry of the Californian salmon, 99,000 fry of speckled trout, 7,000,000 fry of whitefish. Besides this the number of eggs laid down in the autumn of 1877 was as follows: *Salmo salar*, 6,004,000; Californian salmon, 40,000; salmon trout, 1,000,000; speckled trout, 150,000; whitefish, 23,500,000. This whitefish, we are told, is being bred so extensively in order to supply the great falling-off in its take in Lake Ontario and Lake Erie. The Californian salmon (*Salmo quinnat*) which Sir Samuel Wilson has succeeded in introducing into Australia, and which we believe has also been introduced into New Zealand, has been successfully acclimatized in some of the Canadian streams and lakes connected with the Atlantic. It was first brought across the continent from the Pacific coast in 1873. In July, 1877, several of these salmon were netted in Lake Ontario, near the estuary of Wilmot's Creek. Mr. Wilmot makes the following remarks with regard to the way in which these salmon thrive in fresh water, which will scarcely meet with the approval of those who consider that a residence in the salt water for at least part of each year is essential to the proper growth and development of the salmon: "These salmon," he says, "give interesting data for the naturalist and the study of physiology. They, furthermore, practically prove statements hitherto advanced by myself, that the salmon of the sea can be acclimatized and made natives of the fresh-water lakes, and that it is not indispensably necessary for salmon to go to the salt water; large bodies of either fresh or salt water, with an abundant supply of food, is all that is requisite to give them growth and reproducing powers; and that the procreative powers of the male salmon are usually developed at an earlier stage than the female, the former invariably commencing their emigration up the rivers for spawning one year in advance of the latter; hence the indisputable fact of grise taken in rivers being always males." There seems to be at present no annual "close-time" applicable to the rivers in British Columbia, which, in 1877, yielded about 3,500,000 lb. of tinned and pickled salmon; and there appears a probability that wasteful and improvident modes of fishing may exhaust the resources of even these richly-stocked waters. We are glad to see, therefore, that Mr. Wilmot, in his report on the Government breeding-establishments, strongly recommends the institution of an annual close-time, and its stringent enforcement in British Columbia. The following are his remarks on the subject, and on fish-culture generally: "The general progress of the science of fish-culture is extending very widely throughout the world. On the continent of America the interest shown is perhaps greater than elsewhere. Nearly every State in the adjoining Republic is now aiding the work by public grants, and by the appointment of Fishery Commissioners, &c. Very pleasant rivalry exists among the several States as to which shall be most successful in redeeming the waters from previous barrenness, and supplying their populations with an edible food which is so generally prized by the people for its delicacy and wholesomeness. Nor is the Dominion of Canada behind in advancing this important industry of propagating fish by artificial means. This is evidenced by the many establishments now in full operation, which, for numbers, capacity, and completeness are not equalled in any other country. This desire to increase and multiply a valuable article of food and commerce is further evinced in the efforts which are being put forth by one of the most distant provinces of this Dominion, where hitherto it had been considered, from the vast number of salmon that migrated up its rivers, that the supply could never be exhausted. With the unlimited demand, and the very great efforts that have been put forth to supply it, the unrestricted slaughter of the salmon in the Fraser River, in British Columbia,

is creating considerable alarm, as it is seriously affecting the extensive traffic in this source of wealth. This feeling has caused a public expression to be given by the people of New Westminster for an application to the Dominion Government for a grant to erect a salmon-breeding establishment upon a large scale on the Fraser River. This application will no doubt be laid before your department, and will receive that consideration which its importance demands. A suggestion is, however, here offered: that, whilst heartily acquiescing in the wish of the inhabitants of British Columbia in having a salmon-breeding establishment to assist in retaining the stock of fish that at present exists there, it is of equal necessity also that a policy for the preservation and protection of fish, by setting aside close-seasons for their natural reproduction, should be stringently enforced."

HAT TRADE.

No. 103.

Evidence of Mr. MASTERS, hat-manufacturer, before the Commissioners on Local Industries, at Dunedin, 18th May, 1880.

I MAY say that there are five or six hat-makers in the town; yet there are several men walking about the town literally starving. We want a measurement duty, to place us on a par with Victoria. If we had a measurement duty we could employ three or four times as many men as we do now. At the present time we can sell to the retailers, but we cannot sell to the importers, who send Home for fifty or sixty dozen hats at a time. We must have a higher duty put on, which would have the effect of causing them to buy from us; and naturally we would be able to employ a great many more hands. At the present time the master hatters of Dunedin are in a miserable condition; they are barely making a living—indeed, with some of us, it is as much as we can do to make a bare living; the wages we have to pay are considerably more than at Home—three times as much, in fact. We would like the duty to be at 4s. per foot, as it originally was. I think the tariff in Victoria at the present time is 25 per cent. If we got 25 per cent., or 4s. per foot, hat-making in this colony would become a very large and important industry.

134. *Mr. Stevens.*] Are you aware that the depressed condition of the hat-manufacturing trade in this place is not in existence in the other parts of the colony?—In Wellington, Christchurch, or Auckland they do not import hats so largely as we do in Dunedin. The large warehouses here import hats in quantities. In England there is six months of what we call the busy season, and there is six months of bad season. It is in this bad season that the importers go to the factories at Home and get them to manufacture a lot of hats, which are sent out here only if they can just clear expenses. Of course we cannot compete with that.

135. I suppose it pays them to import?—Yes.

136. How is it that Dunedin is so specially favoured with a flood of hats, as you say it is?—I cannot tell you how it is, but I know it is the fact, for all the warehouses in the place are overstocked with hats. If we offer our hats to the retailers they say, "No; we can buy the article a little cheaper from the importers." We can supply the retailers, if you give us some amount of encouragement to our business, but we cannot compete with the importers with the tariff as it now stands.

137. *Mr. Bain.*] I suppose that the quality of your manufactures is equal to that of the imported article?—At the present time I am manufacturing hats for a wholesale house in Dunedin, which are being sold here as made by Lincoln and Bennett, a well-known London firm. The reason I got the order was that the house I have mentioned ran out of hats.

138. Have you attempted to make felt, seeing the quantities of rabbit-skins we can get?—That would take a very large amount of capital. It would cost £10,000 to go into it properly, which the colony is not large enough to warrant.

139. As much as that?—To go into it and get the requisite machinery it would cost quite £10,000.

140. Then, apparently, what you complain of is the want of patriotism here in the people not encouraging native manufactures. They buy the imported article at a cheaper rate than it can be produced here for?—We can sell a hat that is as good, if not better, than the imported article; and the consumer has to pay actually the same amount as if he came to us to purchase. We can sell our hats to the drapers; but we cannot sell to the importers, who get a quantity of hats out from England during the slack season of the Home market, when trade there is slack.

141. What is the rate of wages paid here compared with what is paid at Home?—About three times as much. I know that for work that I paid 10s. in the Home-country I have to pay here 24s.; and for what I paid 2s. 6d. in the old country I have here to pay 9s.

142. Then do I understand that the men prefer to walk about rather than accept a reduction?—They would be quite willing to take a reduction, but there is no work.

143. If you get hats produced at a cheaper rate, could you not sell them cheaper?—We cannot sell them to the importer cheap enough. As I have said, they go into the English market when trade is depressed, and buy. We cannot compete with them. But if there was a heavier duty the importers would have to come to us; and the public would get their hats at the same price as they do now.

144. Has no attempt been made to manufacture felts here?—One or two took up the thing, but it was a failure.

145. Cannot you make a living by it?—No; it requires a great amount of machinery. I am prepared to get out the machinery for blocking the stiffened felt, which would cost about £500, but not the apparatus for manufacturing felts.

146. *The Chairman.*] I suppose that you really make a better class of goods, as a general rule, than those sent out—that they send out an inferior article and undersell you?—Yes.

147. The imported articles are mostly stiffened hoods?—Yes; whereas we make what are called "pullovers."

148. Then you think that a duty of 25 per cent. on manufactured hats would effectually shut out the goods at present obtained from England during the bad season?—It would shut them out entirely. The importer would come to us, then. Of course we do not wish to interfere with soft felt; it is only with what are called belltoppers and hard or stiffened felt hats.

149. You get in all raw materials free?—Yes.

No. 104.

Evidence of Mr. CHARLES HILL, Hat and Cap Manufacturer, before the Commissioners on Local Industries, at Wellington, 1st June, 1880.

THE trade is in a very satisfactory state, and does not require any further assistance. All the raw materials of the industry are now relieved of duty, and the protective duty of 15 per cent. is quite sufficient. I have thirteen persons employed. Journeymen earn about £3 per week at piece-work; girls, 15s. At these rates the trade is a profitable one. I have no particular easement that others have not. I cannot use water-power. My remarks refer to that branch of the trade which is suitable to New Zealand. There are other branches which cannot be successfully carried on owing to the price of labour. The better class of goods can compete successfully with the imported article; we can actually sell hats of the best quality cheaper here than they are sold in London.

No. 105.

Evidence of Mr. HENRY KRAUSE before the Commissioners on Local Industries, at Wellington, 2nd June, 1880.

MR. CHARLES HILL and Mr. Henry Krause brought samples of English and French-made felts, made from the fur of rabbit-skins, and used for hat-making. One firm—Messieurs de Clermont and Co., 11, Rue Barbette, Paris—are purchasers of rabbit-skins to any extent; also many firms in London.

Mr. Henry Krause gave the following evidence: I have only been ten months in this colony. I am a furrier and fur-cutter by trade. I know the value of rabbit-skins. A bale of rabbit-skins contains about 3,000 skins; they are worth from 6d. to 2s. 4d. per pound in the London market. Their value depends entirely on how they are prepared when in a green state. After the skin is taken from the rabbit, I would first remove the lumps of fat adhering, then put it on a wire; but the wire must not stretch the skin more than 4 inches in width. For this the skin, if cut open, is doubled up; but, if not cut open at all, it should be stretched the long way and not in the width. The skin should be prevented from wrinkling and be perfectly straight at both ends, so that when the skin is opened to be manufactured it forms a parallelogram. The wire used should resemble in shape a wire hairpin, and not wider at the head than the points. By using a wire of this shape it prevents loss of fur at the ends of the skin, where, if not dried out flat, it must be cut off, to enable the fur-cutter to get the skin into the machine. It is then hung up to dry the same as is now done. After it is thoroughly dry the wire is taken out, and if there is any more grease upon it, which is generally about the legs, it must be removed. Then the skins require to be classed into real winter skins and summer-skins; the latter are also classed into two sorts. They are then baled, and, if baled in the manner described, ought to reach London in first-class condition, if kept dry. I can buy skins in Invercargill from 1s. to 1s. 9d. per pound for winter skins; summer skins are very worthless in Invercargill at present. If the fat is not entirely removed from the skins, I place them in a large drum, hung upon an axis; inside this drum I place a little dry sand and sawdust; a slow fire is lit underneath, the drum is slowly turned, when the fat on the skins is melted and absorbed by the sand and sawdust. The skins are then taken out of the drum, carefully shaken to remove the sand, &c., and put into the bale. To prepare and pack 3,000 skins into a bale would cost—for sand and sawdust, 1s. 6d.; coals, 1s.; labour, four hours, of two men, 7s. 6d.; pressing, 1s. 6d.: total cost bale 3,000 skins, ready for shipment, 11s. 6d. Therefore, say a bale of good winter skins, landed in London, costs 1s. 8½d. per pound, including freight and charges, they would readily realize from 2s. to 2s. 4d. per pound in that market—that is, carefully prepared as stated above, and landed in a dry state. The trade in England, France, and Germany is now so largely increased that the demand for rabbit-skins is very great, and the price has advanced very rapidly—in fact, skins are becoming scarce. It seems to me that, looking at the rapid manner in which the rabbit has overrun some parts of the Crown lands of the colony, it would bring a large revenue to the Crown by charging so much a skin for every rabbit destroyed, and allowing the rabbits to breed, even supposing it would have the effect of driving the sheep out of the country. I have shown that a large and lucrative trade can be done in rabbit-skins that would handsomely pay any man or any company to undertake, and that would pay a handsome sum per annum to the Crown for the liberty to kill rabbits over the Crown lands. If it was possible for me to obtain a small portion of the Crown lands to try the experiment of creating an industry out of rabbit-skins, I am positive a large and lucrative business could soon be established, and I could afford to pay the same rent to the Crown as is now done by the sheep-owners. It would, of course, be useless to have any country that was not suitable for breeding rabbits; but I should say that about 2,000 acres of such a country would be enough to try this industry for the present.

I R O N .

No. 106.

MR. EDWARD METCALF SMITH to the Chairman and Members of the Royal Commission on Local Industries.

SIR AND GENTLEMEN,—

New Plymouth, 17th March, 1880.

I have the honor to state the following application to you as members of the above Commission, and to state for your information, for nine years I have been endeavouring to point out to the people of the Colony of New Zealand, and every Government that has been in power, that the whole

of the plant and rolling-stock for the railways and other public works could be made in the colony out of colonial material, at a cheaper rate and of a better quality than that which is imported from England and America. I wish to state for your information that I was born in Stafford, England, and that for ten years I worked in the Staffordshire iron and steel trade; and for thirty years I have been connected with the iron and steel trade; and that I have passed an examination at the Royal Small-arms Factory, London; the Royal Enfield Factory, the largest machine gun-making factory in the world; and at the Royal Woolwich Arsenal; and after passing a successful examination at these three first-class and leading establishments, I hold a first-class Government certificate. And, in addition to the above qualifications, for twenty-five years I have studied the science of metallurgy, and for twenty-five years have been a constant reader and have studied the English *Engineer*, which publication contains all and every improvement in engineering and metallurgy; and I know every process discovered, or invented, or patented for making iron and steel; and have had or have now in my library all the leading standard works on metallurgy; and for sixteen years I have been experimenting with the New Zealand iron-sand. In that time I have sent samples of my product all over the world. It has been exhibited at the Vienna and Philadelphia, Paris and Sydney, and other Exhibitions. I have communicated with some of the leading chemists and metallurgists, and iron and steel masters of the day; and I am the patentee of a new and approved process for smelting the Taranaki iron-sand. I have been successful in smelting the same in a modern charcoal blast-furnace. I have made bars of iron, and steel springs, chisels, hammers, drills, engravers, and punches—castings large and small. I have made railway-discs, 4 cwt. each, to the order of the late Minister for Public Works, Mr. Macandrew, which are now in the Sydney Exhibition, and engine-bogie wheels, which are now in the possession of Mr. Harris, railway manager, New Plymouth. I have plans, maps, reports, samples of metal, wood, wood-charcoal, kiln-dried wood, coal, coke, limestone, firebricks, fireclay, plumbago, compound, sand, &c., and could give your honorable Commission all the information as would convince them that the time has come when we could make all our own railway-plant and rolling-stock in the colony, out of colonial material, at a cheaper rate and of a better quality than the imported; and, by doing this, it would keep the large sum of £400,000 a year in the colony that the Government are now sending out of the colony. I could give you all and every information as would prove to you that what I have stated is true in every particular, and by following out my advice, remember, the greatness of a country depends on developing its natural resources. Neglect its natural resources, and you have stagnation and depression as we have now in the colony; but develop the natural resources of the colony, permanent happiness and prosperity will reign within the colony. It will find employment for the population, present and to come; it will enable them to pay the taxes put on them by the Government, thereby enable the Government to have funds to carry on the government of the colony. I could prove all I have stated by the Commission coming to New Plymouth, or by sending for me to Wellington. Hoping this will meet with your earliest and earnest consideration, and I hope your approval, waiting your reply,

I have, &c.,

EDWARD METCALF SMITH,
Practical metallurgist, New Plymouth.

No. 107.

Evidence of Mr. JOHN MARSHALL before Mr. Commissioner A. J. Burns, at Collingwood,
17th April, 1880.

MY name is *John Marshall*. I have been residing about ten years in the Collingwood District. I was connected with the late Parapara Company, being coal-mining manager under Mr. Anderson, the general manager for the Company. I know the locality. There is an unlimited supply of iron ore running back for miles from the outcrop near to high-water mark. It can be easily and cheaply worked; it can be put on board barges in the Parapara Inlet for 2s. 6d. per ton; and if a deep-water wharf was constructed near to the mouth of the Parapara stream—where it runs into Golden Bay—large ships could be loaded with this ore at 2s. 6d. to 3s. per ton. I think about 1,000 to 1,200 feet of wharf would lead into 20 feet of water at low water. But there are the foundations of an iron-smelting furnace already laid, 40 feet by 40 feet, at Ferntown; and, if the furnace was erected on this foundation, the ore could be delivered alongside the furnace at from 3s. to 3s. 6d. per ton. The barges would load in the Parapara Inlet and be towed to Ferntown by a suitable steamer; and coal could be delivered at the furnace at from 12s. to 15s. per ton. Two tons of this coal should produce one ton of pig-iron; and first-class limestone can be procured in abundance alongside the tramway already constructed, and delivered at the furnace at 3s. per ton. I ought to mention a fact that is generally overlooked in connection with this iron—viz., that the pig produced is not common pig-iron, but is a hematite of a quality admirably adapted for the manufacture of Bessemer steel. This I know from reports of this ore, tested and manufactured in Britain and Melbourne. The limestone referred to as being in abundance is nearly a pure marble, white in colour, with blue streaks running through it. An industry other than lime-manufacture might be developed from this marble, as I think it is suitable for mantelpieces and ornamental work generally, and would be shipped from a wharf if it was erected at Timatie Point. According to all the analysis procurable, the coal of this district is admirably adapted for iron-smelting, being almost clear of sulphur; it makes a first-class coke, and burns with a clear, bright flame. Several individuals have been round looking at the field lately, and several of the freeholds and leaseholds have lately changed hands; so it is to be hoped that this industry is now about being developed, notwithstanding the failures that have already taken place in connection with this field. Any assistance the Commissioners can give towards the development of this industry will be a great boon, not only to this district, but to the whole of New Zealand.

JOHN MARSHALL.

No. 108.

Evidence of Mr. RICHARD WILSON before Messrs. Commissioners Tinne and Murray, at Auckland, 7th May, 1880.

My name is *Richard Wilson*. I have been in New Zealand since 4th December last. I was employed for fifteen years as iron-roller at Consett, in the County of Durham, England. I have been in Dunedin most of the time since I landed in New Zealand, where I examined iron ores and coal from various places. From the samples I saw, I consider those from the neighbourhood of the Westport Colliery the most promising, as likely to be capable of developing local industry in iron smelting and rolling. I consider the cost of erecting and working blast-furnaces—say two—on the smallest scale capable of affording a practical and paying result would be £50,000, and the additional cost of rolling-mill and accessories could be well done on a small scale for £12,000. Such furnaces would be capable of yielding about 500 tons of iron weekly for each furnace; and the rolling-mill, with two furnaces, would turn out from 8 to 10 tons finished iron per day. I have not seen the mine, and therefore do not know how accessible the ore may be; but, from what I have heard, I believe the pig-iron could be produced at £2 per ton, and bar-iron, on the average, under £8 per ton. I have not the slightest doubt that, if such works were started in New Zealand, plenty of skilled hands could be easily induced to emigrate from England; and I know that there are numerous hands, now in New South Wales, who would gladly come here if employment were likely to be had. While in Port Chalmers, I was informed that the Government were building there two of Siemens's gas-furnaces for the purpose of smelting the Taranaki iron-sand. From what I know of these furnaces, I am quite satisfied that they are unsuitable for the work, from the fact that even the best fireclays used in England are found to be not sufficiently refractory to stand the work required of them. Ordinary furnaces are worked at 1,800° Fahrenheit, while Siemens's furnaces generate a heat of 3,000°. I have been informed that it is the intention of the Government to utilize the old rails from the railways in making fish-plates in a Government rolling-mill: this fact, together with that of the Government establishing furnaces and rolling-mills at all, is necessarily detrimental to the starting of rolling-plant by any private firm. I would refer the Commissioners to Mr. Burkett, of Kaikorai Valley, Dunedin, for further information on this subject. I may state that fencing-wire requires comparatively little labour, and could be readily manufactured here from scrap-iron, at a cost not exceeding £8 per ton, and of first-class quality.

RICHARD WILSON.

The estimate of a 14-inch mill (showing the cost of producing 10 tons of finished iron):—Fifteen tons of coal, at £1 per ton, £15; 12 tons of scrap-iron, at £2 10s. per ton, £30; labour, &c., £15; total, £60. Ten tons, at £10 per ton, £100. A capital of £12,000. Showing a profit of £40 on 10 tons of iron at £10 per ton, per day.

RICHARD WILSON.

No. 109.

Evidence of Mr. ANDREW WILD before Messrs. Commissioners Tinne and Murray, at Auckland, 7th May, 1880.

My name is *Andrew Wild*. I have been for the last twenty-four years engaged in iron-making at Consett, County of Durham, and in Yorkshire, England. I have had experience in blast-furnaces, and rolling-mills for plate and bar iron—that is, in the erection and supervision of the machinery. From what I have seen of the ores of New Zealand, I feel satisfied that they are capable of producing plate-iron equal in quality to that from Lowmoor in Yorkshire, and at a much cheaper price. I put down one of the finest plate-mills in England, capable of turning out 350 tons of finished iron per week, just before I left England; and, including taking out old foundations, the whole was erected and ready for work in ten weeks. A small mill, suitable for New Zealand, I could put down—if I had all the plant ready—in six weeks. I consider that a bonus, offered in a similar way to that recommended by the Colonial Industries Committee of 1873, or, preferably, by a percentage on the various sizes of iron made, would be very effective in stimulating this industry. I would suggest that a bonus of £1 per ton be offered on finished bars, fencing-wire, rails, and angle-iron; to last for three years from the commencement of the output, or not longer than five years from the time the bonus is offered. And I recommend that, for the manufacture of pig-iron from the ore, a bonus of 5s. per ton should be offered for three years from the commencement of the output, or six years from the time the bonus is offered.

ANDREW WILD.

No. 110.

Evidence of Mr. THOMAS KENNEDY MACDONALD before Mr. Commissioner Burns, Wellington, 31st May, 1880.

My name is *Thomas Kennedy Macdonald*. I am secretary to the New Zealand Titanic Steel and Iron Company (Limited). I have been secretary to the Company since the Company was established. The Company has spent a sum of £18,000 in building a furnace and other erections, and in giving a fair trial to produce iron from the iron-sand at Taranaki. The original anticipations of the Company as to the cost of works and cost of producing iron at a reasonable price have proved quite fallacious. The Company have solved the debatable question whether it was possible to produce iron from the iron-sand through an ordinary blast-furnace. This they accomplished by mixing the iron-sand with a certain proportion of clay and other ingredients, and baking them into the form of rough bricks, and charging the furnace in the ordinary manner with certain proportions of the compound, lime, and charcoal. At the starting-point the Company were led to believe that charcoal could be delivered at the furnace for 5d. per bushel; it cost 2s.: coke, £5 per ton; it cost £7 per ton: lime, 1s. per cwt.; it cost 2s. per bushel, or about 4s. per cwt.: compound, 5s. per ton; it cost 18s. 9d. per ton. The Company were by no means satisfied with their smelting operations, and their own dissatisfaction was shared by a number

of their shareholders resident in Taranaki; and, at the request of Mr. E. M. Smith, upon whose representations the Company had been established, the directors placed the furnace in his hands in September, 1876, Mr. Smith stating that he could prove that the iron-sand could be smelted at a profit. The furnace was charged at 10 a.m. on the 21st September, 1876, and was kept in full blast until 11.45 p.m. on the 25th September, during which time the following materials were used: 1,176 bushels charcoal at 2s. per bushel, £117 12s.; 6 tons 19 cwt. cokè at £7 per ton, £48 13s.; 103½ bushels lime at 2s. per bushel, £10 7s.; 4½ cords wood at 26s. per cord, £5 12s. 8d.; 5 tons 19 cwt. compound at 18s. 9d. per ton, £5 11s. 7d.: £187 16s. 3d.; the cost of labour and charges, £260: total, £447 16s. 3d. The result in product being 2 tons 18 cwt. of iron, worth in the English market about £6 per ton, but which cost per ton £154 8s. 4d.

While the Company are of opinion that the cost per ton in the experimental smelting as above is no index of what it would be were the works in full swing and the industry fairly established, they are firmly of opinion that the cost of production will always far exceed the value of the manufactured article; and that if it will ever pay to smelt the iron-sand of Taranaki, which they very much doubt, it will only be done by manufacturing it in a kind of bloomery furnace of an inexpensive character, such as is in use on the River Moisie, in Canada, and which is referred to on page 131 of Phillips's "Elements of Metallurgy." The Company have at present suspended operations in consequence of the shareholders deciding that no more capital must be expended until the Government have done the Company the justice of issuing to it the Crown grant for 5,000 acres of land in the Moa Block, in the Provincial District of Taranaki, on the faith of obtaining which the capital of the Company was formed.

T. KENNEDY MACDONALD.

No. 111.

The Hon. J. MACANDREW to Mr. Commissioner Murray.

SIR,—

Wellington, 19th July, 1880.

I do not know if the Commission has had its attention specially or at all directed to the importance of the Taranaki iron-sand. I venture to suggest that this is a subject which is well deserving the notice of the Commissioners. I am disposed to think that the difficulties in the way of turning this material to practical account are greatly magnified, and that there are few industries in New Zealand which promise better results were the necessary capital brought to bear upon them. I believe that the whole of our railway wagon and carriage wheels might be cast from Taranaki iron-sand pigs. The United States railways use little else but cast-iron wheels, their material being much inferior to ours. Perhaps you might turn over this matter in your mind.

J. MACANDREW.

JEWELLERY TRADE.

No. 112.

Mr. A. REYNOLDS and Others, Jewellers, to Mr. Commissioner Tinne.

SIR,—

Auckland, 24th March, 1880.

I beg most respectfully to bring to your notice the following facts in connection with my trade as lapidary, and with the trade of manufacturing jewellers. I commenced business in Auckland thirteen years ago as lapidary, for the purpose of manufacturing the greenstone of New Zealand into articles of jewellery; for some years it kept many men employed by the manufacturing jewellers, who used every exertion to meet the increasing demand, and with success. About three years ago a certain merchant's house in Dunedin sent to England a block of greenstone in the rough, where it was cut and mounted and returned to this country; and this led to the complete ruin of the trade here—so much so that none of the trade are now able to employ a single hand, and several have been compelled to relinquish business and leave the place. I place the foregoing facts before you in the hope that the Royal Commission may be induced to take into consideration the present state of the manufacturing jewellery trade and the means best calculated to effect an improvement. If I might be permitted to offer a suggestion, I would say that the case would be met by the imposition of such a duty as would prove prohibitive to the importation of manufactured greenstone articles. I do not think that a duty of less than 100 per cent. would be of any use in bringing about the result we desire. I am the more bold to make this suggestion, as I feel that the imposition of any amount of duty on articles of such manufacture will fall only upon those who are in a good position to pay it. Any further information you may require I shall be most happy to supply.

I have, &c.,

ALF. REYNOLDS.

Herman Penzhalz.

John Ayres.

C. Goodwin.

J. Edwards.

D. Garnier.

Henry Petry.

David Keans.

Seymour Wells.

F. G. Singleton.

J. F. Nuiletz.

No. 113.

Mr. A. REYNOLDS and Others, Jewellers, to the Chairman of the Local Industries Commission.

SIR,—

Auckland, 14th April, 1880.

We have the honor to acknowledge the receipt of your circular of 10th inst., through T. F. S. Tinne, Esq., in answer to which we beg to enclose a copy of a communication sent to the Auckland Chamber of Commerce, and beg to offer the following information and suggestions: We would ask for

a 100-per-cent. duty on manufactured jewellery, and would request special attention to the working of New Zealand stones, such as greenstone, quartz, &c. We would also suggest that the following articles should be allowed to come in duty-free: Gallery-machine work of gold in the rough, jeweller's and lapidary's tools and materials. The demand in New Zealand being so limited that it would not warrant any one in laying down the costly machinery necessary for their production, and as they are required in the manufacturing here, it would aid in the establishment of the industry to admit them free. Trusting that you may consider these suggestions worthy of your consideration,

We have, &c.,

Alf. Reynolds.
Herman Penzhalz.
Seymour Wells.
C. Goodwin.

D. Garnier.
Ant. Teutenberg.
John Ayres.

No. 114.

Messrs. A. REYNOLDS and C. GOODWIN, Jewellers, to the Auckland Chamber of Commerce
(forwarded to the Commissioners on Local Industries).

GENTLEMEN,—

Auckland, 6th April, 1880.

In answer to your invitation, we beg to lay before you the following facts in connection with the manufacturing-jewellery trade: The manufacture of greenstone and quartz jewellery assumed considerable importance in this city, employing a number of hands. Capital was invested, and machinery introduced, and there was every appearance of establishing a trade that would be a permanent benefit to this city and province. About three years ago a merchant's house in Dunedin sent to Europe stone in the rough state to be cut and mounted, which has led to the complete ruin of the trade here, it being found impossible to compete with the prices at which they are enabled to sell. As you invite suggestions, we would propose the imposition of such a duty as will prove prohibitive to the importation of manufactured jewellery, and are of opinion that no less a duty than 100 per cent. will avail anything. We are aware that 100 per cent. seems a very large duty to ask for; but, wherever in Europe ours is an old-established industry, machinery and other appliances are so perfected that production is accomplished by means of boy and girl labour, and at a price that precludes us from making ours a New Zealand industry, unless in the early stage of our efforts a large duty such as we ask for is imposed. No doubt, when this industry is thoroughly established here, and appliances perfected, a much smaller duty will be sufficient. The question now is, Shall we make the trade of a working jeweller a New Zealand industry, by fostering it in its infancy to the necessary extent, or shall we prevent its establishment by withholding the necessary fostering measures?

We have, &c.,

ALF. REYNOLDS,
C. GOODWIN,

(for the trade.)

No. 115.

Evidence of Messrs. A. REYNOLDS and SEYMOUR WELLS before Messrs. Commissioners Tinne and Burns, at Auckland, 30th April, 1880.

My name is *Alfred Reynolds*, lapidary, residing in Albert Street, Auckland. I have been in business as a lapidary thirteen years in Auckland. Referring to my letter and complaint therein stated, I and the working jewellers request certain alterations in the Customs tariff on jewellery to the extent of 100 per cent. This is asked for as a matter of trade, and, if the importation of manufactured jewellery continues, the trade will be ruined here, if it is not so in fact now. The amount realized from the sale of jewellery manufactured in Auckland used to be between £300 and £400 per week, the greater portion of this being greenstone jewellery. This trade is now nearly extinct. A number of hands were employed at this trade; they are now idle. I think, if a duty were imposed, the consumer would not pay any more for the article than at present, as I know that a gold chain was sold lately for £7 10s. per ounce, whilst I am aware that the same chain could be made in Auckland and sold for £6 10s. per ounce. The difficulty is with the shopkeepers: they are able to import and sell cheaper than we can manufacture, and they have a larger profit on the imported article, but the consumer does not purchase any cheaper. [At this stage Mr. Seymour Wells, a manufacturing jeweller, entered the room, and gave evidence along with Mr. Reynolds.] The trade is unable to compete with the importer at present without an import duty, as the jewellery in other countries is principally made by children at very low rates; but we are well aware that the consumer does not derive any benefit from the imported article over the article manufactured in the colony; in fact, the consumer very often pays a higher price for an inferior imported article.

ALFRED REYNOLDS, Lapidary.

SEYMOUR WELLS, Jeweller and Assayer.

No. 116.

Evidence of Mr. BAXTER, Jeweller, Dunedin, before the Commissioners on Local Industries,
at Dunedin, 18th May, 1880.

I MAY say, gentlemen, that I have been fifty years in the jewellery business, and I have never seen the trade in the state it has been here during the last three years. We have, in fact, nothing to do. Indeed, even medals, or anything of that kind required by Agricultural Societies, are not given to the manufacturing jewellers in the place to make, but are sent Home for, either to England or Scotland. With your permission I will read you a short statement of our grievances:

The working jewellers of Dunedin would respectfully submit the following facts for your consideration:—

1. That there are at present fifteen master-jewellers in Dunedin who have machinery to employ at least forty hands; but, owing to the low tariff imposed, it is at present lying idle, while a large number of men are unemployed.
2. That nearly all apprentices go to Melbourne (where there is a protective tariff of 25 per cent.) when out of their time, and readily obtain employment.
3. A considerable quantity of jewellery is imported from Victoria, manufactured there.
4. Previous to protection being introduced into Victoria (1866) there were only twenty jewellers employed, and two years after there were 120 on the rolls of the Society.
5. Large quantities of greenstone annually sent to Germany rough, and imported here cut ready for setting, the stone-setting separately. Would suggest that a duty of 25 per cent. be put on stone cut ready for setting.
6. Would point out that presentation cups, medals, &c., could be profitably made in the colony were an extra duty of 10 per cent. imposed.
7. Would recommend that a close inspection be made by Customhouse officers of all jewellery and fancy goods imported, and would suggest that an expert be employed for the purpose.
8. That an export duty of 2s. per pound be put on all rough greenstone exported from New Zealand.
9. That there is seventy-five thousand pounds' worth of jewellery annually imported into New Zealand.
10. That any new pattern made in the colony, if likely to take, is sent Home by the importers and dealers to obtain quantities of a similar kind.

I may add that all kinds of testimonials for presentation, which different people in the town are well able to make, never come through our hands for chasing or to be embossed. During the last two or three years the shops sent Home all the old silver to be melted and made into presentation cups, &c., which are sent out to the colony. There is really nothing to be done here in our trade. I am not the only one in this state. Most of the jewellers here will bear me out that I am stating only the truth—nothing more nor less. The reason why we suggest that there should be a closer inspection by the Customs officials of all jewellery imported, and that an expert should be employed for that purpose, is that so many chains and different things are sent here so made up that no Customhouse officer, unless he be an expert, can tell whether or not they are gold. Perhaps they are sent among fancy goods, and pay little or no duty, just in the way that other jewellery, as brooches, ear-rings, and rings, are sent here, and all the while the colonial manufacture is at a standstill. The reason why we suggest a duty on the export of greenstone is that the local lapidary has no chance whatever, because the bulk of the greenstone is now sent either to Germany, or to Birmingham or Derby. In Derby there are plenty of lapidaries, and the greenstone is sent to them to make up in the slack season. It is sent back here ready for setting, and the local lapidary is in the same boat with ourselves—doing nothing. Here a man makes a pattern, and introduces it into the native work. There is the fern-leaf, for instance. Instead of the designer being able to command a good price for his ingenuity and skill, the house procures a copy of the design, sends it Home and has it copied; and the first thing the man who designed the pattern sees is what appears to be his pattern in all the shop-windows. This is, however, the sham character—the “shin-plaster”—things which will tumble to pieces; whilst the colonially-made article is durable, and has a great deal more gold in it.

150. *Mr. Stevens.*] When did the decline in the colonial trade take place?—About three years ago.

151. Before that it was better?—Oh, yes! We used to have something to do then.

152. How do you account for it?—The action of the shopkeepers in sending Home for all their work has caused such a depressed state of trade. Now, as I have said, they even take our patterns and get the goods made in England from them. While we were able to keep our patterns to ourselves we had sufficient employment for ourselves and our apprentices. Now it is quite the reverse. My own son could get nothing to do here, and had to go to Victoria. In fact, none of our working jewellers have been able to keep their apprentices, but have been obliged to turn them away, and they have become diggers or gone into the bush. I could mention half a dozen different boys whom I have known as apprentices. Now I see them butchers or grocers, or some in the bush—doing anything but making jewellery. The duty is only 15 per cent., and the shopkeepers and warehouses do not consider it much.

153. They undersell the working jeweller, I suppose?—Yes; the imported work is not to be compared with the colonial. It is light, flimsy, and after six months' use it is worthless. There is hardly any gold in it.

154. *Mr. Bain.*] Do you not think that the depression which the colony has been suffering from for some time has something to do with the depression of your trade?—No doubt; but very trifling compared with the duty.

155. Jewellery being articles of luxury, people cannot afford to spend money on those things in a time of depression?—I have known the time here—during a gold-rush—when there were scarcely a dozen people to be met in the streets, yet we had plenty of work to do.

156. So far as I understand you, you complain that these imported articles of flimsy make are supplanting more solid articles of jewellery?—Most decidedly.

157. That is a thing which cannot well be regulated. There is something in it, that the public do not discriminate between that which is substantial and that which is not?—They certainly do not. If I may be allowed to say so, it is the quantity which pays; and it is the large quantity that is imported that makes our trade so depressed. Jewellery comes into this country to the amount of £75,000 annually. It is imported by the warehouses here from warehouses at Home. I may mention one house—P. Hayman and Co. There is one brother in Birmingham and one in Germany, and these men are kept buying, so as to keep getting discount. This quantity of jewellery still comes in, notwithstanding the depressed times. If we had the quantity to do that they have at Home, we could compete with and give a better article than the imported. The public would not suffer.

158. That applies only to gold jewellery?—Yes.

159. *The Chairman.*] You do not do anything with silver jewellery?—Oh, yes! we make cups.

160. Still, you have to import silver?—We have plenty of silver—cheaper than we can get it from Home. We get it at Auckland from the banks.

161. *Mr. Bain.*] Is it the fact that the local societies and local bodies prefer to send Home for their articles of silverware, such as medals and presentation cups?—Yes; only a short time ago the Agricultural Society sent Home an order for a hundred and odd medals. One of the shopkeepers here got the tender for their supply; and, rather than employ local workmen, who had got the necessary machinery and everything ready for making the medals, he sends to Scotland to have the order executed. He is Scotch himself.

Another representative of the jewellers brought under the notice of the Commissioners that in India and Brazil native stones had an export duty placed on them if sent out of the country to be cut. At the present time our greenstone from the West Coast was sent in large blocks to Germany, there to be cut; and the work was done at a price that placed the local lapidary and the jewellers who worked in greenstone at a great disadvantage.

162. *Mr. Bain.*] What you want is an export duty similar to what is put on gold?—Yes. It is usual to protect the local manufacturer, and to tax the rough stone going out of a country. Letting it out duty-free is encouraging the making of the article abroad.

LEATHER TRADES.

No. 117.

Mr. C. C. FLEMING to Thomas Peacock, Esq., Mayor of Auckland.

SIR,—

Auckland, 14th April, 1880.

Observing your advertisement asking for suggestions to forward to the Local Industries Commission, I beg to submit that the following articles required in the boot-manufacture should be exempt from duty, as they are not interpreted by the Customs as included in grindery, which was agreed to be admitted duty-free last year: 1, machine-silk; 2, linen threads; 3, wax threads; 4, sole-sewing thread. (The first three items are essential to the manufacture of uppers equally with hemp, and these form a large item in the cost of bootmaking. I believe that the difficulty in this branch is to discriminate between that used in bootmaking and that required by drapers. To meet this, if yellow silk was exempt, it would take nine-tenths of what is used by boot-closers, and this would be a great concession, if not possible to get all the silk free.) 5, dressing-blacking used for finishing boots, also boot-inks for same use; 6, copper toes for boots (not for soles); 7, heel and toe plates; 8, wax pitch; 9, boot-powder; 10, shoe-horns; 11, leather laces; 12, dubbin; 13, kid-reviver; 14, gloss; 15, leather-cements; 16, patent toe-caps; 17, sharpening-stones and boards; 18, French-calf boot-fronts which cannot be made here; 19, boot-trees; 20, boot-stretchers; 21, boot-measuring sticks and tapes; 22, cashmere and lastings for boot-uppers; 23, (shoe) felt-cloth and slipper-shapes; 24, short lengths of carpet only fit for slipper-making. In regard to the silk and linen thread for machine use, it would be a boon alike to the clothing manufacture were all such admitted free, and would certainly tend to give local industry an advantage in competing with imported clothing.

I have, &c.,

C. C. FLEMING.

No. 118.

Messrs. A. R. and F. GOODACRE to Thomas Peacock, Esq., Mayor of Auckland.

SIR,—

Auckland, 16th April, 1880.

Having seen the notice in the paper, we take the liberty of sending you our views of what is needed in our branch of trade—namely, boot and shoe upper manufacturers. We think that the duty should be taken off the sewing-machine threads and silks, also off kid-skins and French calf-skins, and boot-looping, as none of these goods are made in the colony. We do not think that the duty should be taken off the common sorts of leather, as that would interfere with the local tanners. We should recommend the duty on boot and shoe uppers to be 25 per cent.: this would only just be enough to allow us to compete with the English and American goods. Hoping this will be of some use,

We have, &c.,

A. R. and F. GOODACRE.

No. 119.

Mr. JAMES WISEMAN to the Chairman of the Local Industries Commission.

SIR,—

Auckland, 19th April, 1880.

In compliance with the request of the Royal Commission on Local Industries, I have the honor to state that I have, for the last eighteen years, endeavoured, in making saddlery and harness, to use as much locally-manufactured material as possible—such as brown and black harness-leather; white, brown, and coloured basils; brown, black, and split kip; sole-leather; white and green hides; colonial hogskin; beeswax, &c. Materials used by me, but not manufactured in New Zealand, comprise all kinds of saddlers' and harness-makers' general ironmongery and mountings, saddle-trees, patent and enamelled leather, English hogskins, felt, collar check, kersey, serge, Prince's check, linen and woollen webs, machine and other thread, hemp, yellow silk, twine, brass locks and fittings for portmanteaus and bags, woollen flock for stuffing, waterproof canvas for gaiters and bags, saffron, &c. There was a manufacturer of harness-mounts here, but he could not make it pay, so had to leave the colony. I paid him about £140 in a little more than two years. I consider that all the last-mentioned goods should be imported into this country free of duty, so that saddlers and harness-makers may in

some way be able to compete with English and American manufacturers. Also that, if a protective duty of 15 or 20 per cent. were imposed on all manufactured saddlery and harness imported—say for five years—local industries would be nursed, more money be circulated in employment, and, as a consequence, the public generally would reap the benefit. As far as I am personally concerned, I should be benefited at the present time by no protection, as imported goods are more profitable than those of local manufacture; but, for the future benefit of the trade of the colony, I consider that local industries should be fostered.

I have, &c.,

JAMES WISEMAN.

No. 120.

MR. THOMAS FREEMAN to W. Swanson, Esq., M.H.R. (forwarded to Commissioners at Auckland).
SIR,—

Auckland, 10th May, 1880.

I desire to bring under your notice the ill effects operating upon an industry in which I am engaged—namely, that of last-making. By an alteration in the tariff of last year the duty was taken off, and lasts, I understand, are now among the articles under exemption of duty. Such an alteration could not, I think, have been intended, being against the spirit of the other matters dealt with in the tariff. It has had the effect of seriously crippling my industrial occupation; and, although a considerable amount of capital has been expended in establishing a plant for the manufacture of lasts, yet, by the unexpected withdrawal of a small protection, which was afforded me by the imposition of a Customs duty, I am unable to compete with the imported article, and an industry on which much has been laid out has been rendered profitless. If you, Sir, in your place in the House of Representatives, can afford me any assistance, I shall be grateful; and I shall be glad also if you could represent the matter to the Commission now sitting on local industries.

I have, &c.,

THOMAS FREEMAN.

No. 121.

Evidence of Mr. CHARLES COOMBES, of Coombes and Sons, Tanners, Dunedin, before the Commissioners.

GENTLEMEN,—

Dunedin, 18th May, 1880.

I represent the firm of Coombes and Sons, and will state to you what the little grievance of our trade is. We have all our raw materials free—our barks and our oils. Our firm makes leather here and in Christchurch. In Victoria or Adelaide, when trade is slack there, the manufacturers send their surplus stock down to New Zealand, sell it at a lower price, and fairly swamp us. We cannot send our leathers over there, as there is a 30-per-cent. duty both in Victoria and Adelaide; so that, when we are slack here, we are obliged to send our hides over to them, and they make them into leather and send them down to us. We require to be placed on the same footing that they are on. Since they have got a 30-per-cent. duty on manufactured leathers, let us have the same. If we admit their leather duty-free, they should allow ours to go in duty-free. Let every man in our trade compete one with another on the same footing—that is what I contend for. I am not ashamed of our leather. Boots and shoes made from our leather gained prizes for material and workmanship at the Sydney Exhibition. Saddlery, also, made from leather made in our shop got a prize. We could get labour in Victoria for £2 a week, but I am obliged to pay the same men here £3 to £4 per week. A little while ago I had seventy men working for me; but trade became dull in Victoria, down came the leather from there wholesale, and I was obliged at once to discharge half my men. I have not thirty-five men now. I repeat that all we require is to be placed on the same footing as the Victorian tanners. I am not the least afraid of Victorians sending their leather down here if we were on the same footing as they are. We can produce a better article than they can; if that article was open to them, we could send them an article which would give us a good deal of their trade. But when trade is slack there, and they send us down their leather wholesale, we are obliged to send away our hides. That gives them a double advantage over us.

163. *Mr. Stevens.*] What price per pound would be sufficient to give you the protection you want?—Just what they charge us in Victoria and Adelaide.

164. *The Chairman.*] You want 30 per cent. *ad valorem*. What is the value on sole-leather?—Tenpence to 1s. 1d.

165. *Mr. Stevens.*] Do you know what is the total amount of manufactured leather that comes from Victoria and Adelaide?—No. There are only two tanneries in Dunedin to a population of over 20,000. I would rather have free-trade than protection.

166. *Mr. Bain.*] Do you import the barks you use?—Yes.

167. Have you tried native bark?—Yes.

168. Has it answered at all?—Yes, it is a very good tanning bark.

169. What is the restriction on your using it—its cost?—I cannot get it.

170. Have you advertised for it, or made it public in any way that you want it?—Oh, yes! Last year, I suppose I bought three hundred and sixty or four hundred pounds' worth. As soon as I got to work with it, and had made a start with it, I could not get a further supply.

171. Where is it got from?—There is plenty of bark around these hills.

172. Could not the unemployed make something by going and gathering bark?—I suppose so.

173. Is it generally known that you are a buyer of this bark?—Yes.

174. Is the price you pay for it remunerative?—Yes.

175. But what are the facilities for getting it?—Last year I went to an expense of £150 to get a bark-mill for the purpose of grinding the bark.

176. The difficulty, then, is in getting a sufficient quantity?—Yes. I want about 40 tons monthly.

176a. *The Chairman.*] Could you use that quantity a month regularly?—Yes, I do it. I had it from Southland last year. The saw-millers are throwing away thousands of pounds every year. It is no use bringing it up covered with mud, as they do from the saw-mills.

177. *Mr. Bain.*] At what price is it delivered to you at your tannery?—Five pounds per ton.

178. I suppose it would cost a great deal to carry it on the railway?—Yes.

179. They charge by measurement?—Yes, measurement of one and a half, and if it is in large bundles they will charge double.

180. But if the railway carried it cheaper?—If they bring it into the market I can use it. It would not, however, do to induce “new chums” to go into the bush to get bark. I have been at it for twenty years, and well know the difficulty of getting bark in the New Zealand bush, where a man has to carry the bark on his back. I have done it myself, and carried it for over half a mile.

181. Do you believe that, if the railway carried the bark at a cheaper rate, you might get it in larger quantities?—I do not know that; but I would buy it.

182. Is the price—£5 per ton—you pay, for it delivered at the railway-station?—That is my price for it delivered at my place. Then there is the grinding of it. I find that the Victorian bark—that is, what we get from Port Macdonnell and around Portland—is 10s. cheaper. It is cheaper to grind, and is finer.

183. But we want to encourage native industries.—Yes, that is all very well; so do I. In the forests on the West Coast there are thousands of tons of fine bark for the mere labour of getting it.

184. *The Chairman.*] Will the bark of any of our native trees answer your purpose?—The birch, the hinau, and the rimu will.

185. Very likely other trees would if inquiries were made?—Possibly.

186. *Mr. Bain.*] These are the only trees you have proved to be suitable?—Yes.

No. 122.

MR. ALLAN S. McLEOD (for the Secretary, National Industrial Association) to the Chairman of Local Industries Commission.

SIR,—

Dunedin, 24th May, 1880.

When you were in Dunedin it seems that by some chance the Dunedin Boot-manufacturers' Association was overlooked. This is an important industry, whether you regard the raw material worked up, the quantity of labour employed, or the absolute necessity to every one of the finished product. I am asked by their secretary to forward you the enclosed letter, setting forth some of their views. Being a holiday to-day, I have taken the liberty to act in this matter for the secretary of the National Industrial.

I have, &c.,

ALLAN S. McLEOD.

No. 123.

MR. A. H. SHELTON, Secretary to the Dunedin Boot-manufacturing Association, to the Royal Commission on Local Industries.

GENTLEMEN,—

Dunedin, 22nd May, 1880.

By the request of the Dunedin Boot-manufacturing Association, I have the honor to state their views upon the question of protection to local industries. They believe that the Government is morally bound to find employment for the various classes of labour imported under the immigration scheme, if by any reasonable means it can be done. The numbers of colonial youths just passed through their apprenticeship, and looking to the trade to find a livelihood, are also entitled to great consideration. They think that, unless additional duty is placed upon manufactured goods of all descriptions at present imported, the industry must fail to find steady work for any number of hands, and ultimately leave the market at the mercy of importers, who do not sell (as the past trade of Dunedin amply proves) at the fine-cut prices of the colonial producer. They are of opinion that, instead of colonial work becoming dearer to the public under a protective tariff, it will become cheaper when there is more work to do and more classes of goods to manufacture. The spirit of competition is always very great amongst shoemakers, and a monopoly to the disadvantage of the public almost an impossibility. Fourteen plants of shoe-machinery (including the most improved machinery used in the trade throughout the world) are now being used in Dunedin in the production of boots and shoes. Their value cannot now be stated, but amounts to a considerable sum. The number of hands engaged in the various branches of the trade is estimated at about four hundred (comprising labour suited to the manufacture of any class of work) in Dunedin and suburbs, and it is considered by the members that the influence upon trade in Dunedin and other centres, when taken in conjunction with those employed in other trades, of such a number of consumers, must be beneficial to every class in the community—more especially as the usual busy season of the operatives in the shoe and other trades is at the time when out-door employments are slack, and therefore the expenditure of these work-people's wages at a dull time would tend largely to equalize the receipts of those who supply the necessaries of life. In asking protection to their trade, it must not be supposed that the gain is all one-sided, as the class of work, the shape, and fitting are all better suited to the colonial wearer than imported goods. It is a fact that the manufacturers here give more weight of leather for price paid than the Home market, and it follows that colonial goods do not bear the imposition of so many profits as English goods. Upon this point they strongly contend that the advantages do not reach the general public, but go to add to the wealth of a class small in number. The principal opponents of the trade, outside Dunedin, are England and Victoria (the manufactures of Sydney not being suited to our climate, although their cheapness causes a certain quantity to be sold). Victoria often makes Dunedin and other towns in New Zealand a sacrifice-market for her surplus stocks; but it must not be imagined that the public reap any advantage from these forced sales: the retailer pockets the difference in price, we lose the order, and the public do not benefit. To balance accounts with Victoria, the imposition of her own protective tariff is necessary. In Dunedin the opposition of the importer is naturally fierce, and takes the clever form of over-assistance. They have enabled so many persons to start, and the competition has become so unprofitably keen, that capital stands aloof from

the trade. Boots manufactured here have been sent Home and *fac similes* made from them, with the object of causing greater competition, the samples being sent Home at the same time they were enabling persons to start manufacturing here. The most successful of the importers' schemes against local manufactures is the importation of boot-uppers from England. About eighteen months ago a firm here imported a very large quantity. They were of a kind for which we got our highest price, and our best hands were engaged producing them. The market was quickly flooded, and a good many clickers, fitters, and machinists lost employment, and the manufacturers were left up to the present time to manufacture inferior lines, which added to the difficulty of the struggle for existence. Again, the members call attention to the fact that the difference in price was not gained by the public; that went to the importers. Had we made them, the profit would have been ours and the public no sufferers. To make these uppers appear colonial-made, they get the soles put upon them here, and the public—who support us in every way they can, or we should not exist at all—are deceived into thinking they are supporting colonial industries. At least 20 per cent. duty is needed upon imported uppers; and when the harm they do the shoe trade is considered, 25 per cent. would not be too much. With regard to the importation of leather, grindery, &c., they leave discussion of what protection is needed upon material dressed here to those interested in that branch. They consider, however, that any material used in the trade that cannot be produced, should be admitted duty-free. In conclusion, they hope this letter will receive consideration, and that your labours may result in gaining protection for our industries. They know that free-trade came as a great boon to the paupers of England; but their idea is that a new country like New Zealand requires protection to prevent the pauperizing of her population. "Prevention is better than cure."

I have, &c.,

A. H. SHELTON,

Hon. Sec. Dunedin Boot-manufacturing Association.

No. 124.

Evidence of a DEPUTATION of BOOT- and SHOE-MAKERS of Wellington, taken before the Commissioners, at Government Buildings, Wellington, 1st June, 1880.

THE deputation handed in a copy of resolutions passed by them at their meetings, as follows:—

"That this meeting is of opinion that the time has arrived for New Zealand to protect her industries. The boot and shoe trade being one, it is the imperative duty of every member of the trade to endeavour to obtain such a tariff as will place them on a par with their foreign competitors."

"That this meeting is of opinion that 40 per cent. *ad valorem* duty should be placed upon all manufactured goods imported, and that a deputation, consisting of Messrs. Smith, Ashton, Edwards, &c., wait upon the Local Industries Commission."

Mr. Ashton states: I am an employer of labour in this trade. I find that German and Austrian boots are imported at prices far below what it is possible for us to make them. These goods are ladies' and gentlemen's best boots. The leather for these boots, except the sole-leather, cannot be manufactured in the colony. The boots we have been making hitherto have been men's and women's strong boots. These we can make to compete with the imported article; most of the leather for these boots is made in the colony. It requires more skill to make a fine boot than a strong one. In this country we have to pay at least 100 per cent. higher wages than in England. In order to enable the trade to successfully make these fine boots, it is necessary that the consumer should pay a very much higher price for the colonial-made article—that is, supposing the 40-per-cent. duty was imposed. We should like the items of boot and shoe vamps, now charged 15 per cent. duty, to be reduced to something like 1d. per pound. If I can keep the men steady at work they can make 55s. per week; but at present the men do not average more than four days per week—one week busy, the next nothing to do. The importers can bring in goods from Melbourne and Sydney at lower rates than we can make them; but when they are out of goods they send to us to make them, so that for the time we are busy. We have always been at the mercy of the importer: what they can get made in Melbourne or Sydney at 1s. 4d., we have to pay 2s. 4d. for here. The wages there are at least one-third lower than here. I keep twenty-five hands, and have the latest improved machinery. I employ a few apprentices; they serve some four or five years. We employ a few women, and use as much colonial-made leather as possible. The bootmakers in Melbourne earn about 30s. to 40s. per week on piece-work. The men here would not work for 50s. per week, even if guaranteed constant employment. We have the labour here for making a certain class of ladies' boots, but not for the finer class. Light boots will not pay to make, even with machinery and 60 per cent. duty. When my men are out of work, they take a job where they can get it, even at labouring work; this, of course, has a tendency to reduce the price of labourers' wages. The men, as a rule, are very steady, well-behaved men. We do not think it is right that Melbourne boots should be introduced to reduce the price of our boots.

My name is *William Smith*. I am a representative of the working boot-trade of the bespoke line, or boots made to order. I have been four years in this colony. I have had constant work. My wages average £2 per week at piece-work, averaging nine hours per day. I am able to make all kinds of boots and shoes; therefore I am in constant work. Many men who can only do certain branches may not be able to get constant employment. I am a journeyman shoemaker, and work for a man who keeps a retail shop and is also an importer. If the trade could obtain a tariff of 40 per cent., they would be willing to accept a reduction of 20 per cent. in wages; but this would have the effect of increasing the articles made in the colony 20 per cent. to the consumer. I am not fully acquainted with the details of factory-work. There are, of course, differences in men's earnings. A skilled man, or a more industrious man, will earn higher wages.

My name is *John William Leahy*. I was born in New Zealand. I am an importer and manufacturer of boots and shoes. I have an objection to the present low tariff, because the money leaves the country. We cannot compete in many articles in consequence of this low tariff. The cost of materials and labour in making up a pair of boots is about one-half for labour and one-half for materials in the

bespoke line, but in a factory the labour would be about one-third. Only the leather is made in the colony; all the other articles are imported. Therefore, in my case, two-thirds of the value of a pair of boots goes out of the colony, notwithstanding what the tariff may be. There are certain classes of ladies' boots that could not be made here, even supposing the tariff was raised to 100 per cent.; and all the materials for these boots, except perhaps the sole-leather, would have to be imported. I purchase all my sole-leather in the colony, also kip; but the calf made in the colony is inferior. I employ three hands; they average £2 per week, working eight hours; they might make £2 2s. per week, working eight hours, and six days. I pay them at the rate of 7s. and 8s. per pair for pegged work. The materials to make these boots cost 4s.—that is, all imported; the materials manufactured in the colony cost about 3s. 6d. I have turned out apprentices who should be efficient in about six years. Their average wage is 5s. per week, with board, lodging, and washing, at first; and increases, on an average, 5s. a year to the end of their apprenticeship. A return to an *ad valorem* duty would be the fairest duty for all branches of the trade, and is what we desire and recommend.

My name is *Matthew Boyd*. I have been five years in the colony. I am a heel- and toe-plate maker. When the tariff was passed in 1879, heel-tips were excepted from duty; and I desire that a duty of 25 per cent. on heel-tips be imposed. This would only make a difference of 2½d. per dozen pairs of boots, and it would enable me to make these articles, and to compete with the imported articles.

No. 125.

Evidence of Mr. J. E. EVANS before the Commissioners on Local Industries, Wellington, 2nd June, 1880.

My name is *J. E. Evans*. I am a saddler by trade. I was born in the colony, being a native of Wellington. I put in the following papers as evidence:—

Proposed—That an import duty of 15 per cent. *ad valorem* be charged on machine-beltting of all kinds: the duty at present on leather beltting being 1d. per pound, or about 2 to 4 per cent. on value, while leather to make it pays the same duty (1d. per pound). The effect of a duty of 15 per cent. would be that tanners would obtain special appliances to make suitable leather for belts, which, with the present small demand, they will not do.

That leather for hose-pipes, and also copper rivets used in manufacturing, be admitted free; or, that an import duty be charged on imported hose-pipe, at present admitted free.

That harness compositions of all kinds, now admitted free, be charged a duty of 15 per cent.; the material for making being nearly all obtainable in the colony, and the manufacture a simple process.

That machine-threads for manufacturing be admitted free.

That brown kangaroo-skins for whip-making be admitted free.

I intended, but forgot, to mention this morning that the working of the present tariff of 15 per cent. *ad valorem* has been very satisfactory; that more men have been employed making goods previously imported, and that the cost to the consumer has been, if anything, less than before—certainly not more, although the old stocks have scarcely worked out yet: when that is done, the advantage will be more felt than now.

I have, &c.,

J. E. EVANS.

No. 126.

Evidence of ALFRED TYER before the Commissioners on Local Industries, Wellington, 4th June, 1880.

My name is *Alfred Tyer*. I am a tanner, residing in Tinakori Road, Wellington. I use about 24 pounds of saffron in a year: this costs 37s. 6d. per pound in England, and sometimes it is as high as 45s. It would be a great relief to my business if the duty was removed from saffron. Saffron is used by every tanner, also by saddlers and shoemakers, in staining leather.

7
METAL TRADES.

No. 127.

Messrs. A. and G. PRICE to the Royal Commission on Local Industries, Thames.

GENTLEMEN,—

Grahamstown, 13th April, 1880.

At your invitation, we most respectfully beg to inform you that we are in a position, as regards tools and appliances, to manufacture nearly any articles required in New Zealand in general engineering, iron-founding, brass-founding, boiler-making, shipbuilding, &c. At present our staff numbers between forty and fifty, most of whom are skilled mechanics in the various branches of our trade. We, when full-handed, employ over seventy hands, so that at present we are far from being busy. We attribute our slackness to the general depression in trade all over New Zealand, and to the large number of establishments in and around Auckland competing for the few contracts offered. Large numbers of skilled workmen are idle in and around Auckland, and applications for employment in all branches of our trade are very numerous. As regards duties on material used by us, the bulk of it is free; but an import duty might be levied with advantage to us and the country at large on many imported articles, and also find employment for a large quantity of the surplus skilled labour. For instance, steam-engines (portable and stationary), saw-mill machinery of nearly all classes, boilers for steam uses, including marine engines and boilers, agricultural machinery, quartz-crushing machinery, and tailings-reducing plants. A large portion of the above is made in neighbouring colonies, which colonies (Victoria and New South Wales) are benefited. Water-pipes, bridge-castings, cylinders, &c.: in importing, the Government should study to import only articles that cannot be manufactured in the country. A very large quantity of the rolling-stock could be made here at a small advance on the

finished or fitted cost. We grant there are many parts of locomotives and other work that would have to be imported; but a judicious specification would force contractors to have their work done here, instead of ignoring existing industries and, for a small extra profit, resorting to importation, even to bolts and nuts. Were Government contracts to be let locally, or New-Zealand-manufactured, we should at once derive a benefit.

We have, &c.,

A. AND G. PRICE
(per Matson).

No. 128.

Messrs. KINCAID, McQUEEN, and Co. to the Chairman of the Commission on Local Industries
Timaru.

SIR,—

Dunedin, 14th April, 1880.

In answering your circular, in which you request information *re* local industries in Dunedin, we shall have to confine our remarks to our own particular branch of industry as engineers, iron-ship builders, boiler-makers, iron and brass founders, millwrights, and manufacturers of agricultural machinery. The principal class of work carried on by us for some time past comprises iron-ship building, land and marine engines and boilers of every description, quartz-crushing machinery, pumping and winding machinery for coal and gold mines, machinery for flour and oatmeal mills, saw-mills, paper-mills, wool-washing &c. We may mention that about 90 per cent. of the work done by our firm during the last eighteen years has been to the order of private individuals or public companies, and only about from 5 to 10 per cent. for the Government, both General and Provincial; and we believe that during the same time these Governments must have imported about 90 per cent. of the machinery and ironwork used by them. We are of opinion that, as private individuals and public companies have found it to their advantage to have their work done in the colony, the Government should at least give every encouragement to local industries, and try if their work cannot be supplied in the colony. We have often been surprised to hear the question asked, Can locomotive engines be made here? As a proof that they can, we have only to refer to the larger and more difficult mechanical undertakings which have been successfully executed by some of the firms in the chief towns of the colony. As we presume that others in similar lines of business to ourselves have been required to furnish you with what information they can in connection with their own experience, we will confine our remarks principally to works which have been successfully undertaken by our firm during the last few years. As an instance of the capacity of our local industries for the accomplishment of works of some magnitude, we may mention the 40-ton travelling crane at Oamaru, constructed by our firm to the order of the Oamaru Harbour Board. This crane is self-acting in all the motions of travelling, slewing, hoisting; and is all under the control of one man. The crane is constantly and successfully employed laying ponderous concrete blocks for the formation of the Oamaru breakwater. The success of this, one of our early achievements—it was made some few years ago—has induced the Board to favour us since with many large orders for cranes and other machinery, and manifest their appreciation of the quality and suitability of the work supplied. When the Otago Harbour works were commenced, the Board called for plans and tenders for a large dredge. Our offer was accepted, and the dredge "Vulcan," was built, and supplied with compound engines of 70-horse power nominal, at a cost which will favourably compare with Home prices. We have since supplied the Board with work of more or less magnitude, amounting to the value of some thousands of pounds sterling per annum. The patriotic example of these Boards has been followed by others, with advantage to themselves and great benefit to the country. The resources for and experience in iron-ship building are extensive. We have ourselves built steamers of various sizes up to 120 tons register, fitted with high-pressure or compound engines, up to 250-horse power, and for finish and for economy of fuel the engines and boilers of these steamers will compare favourably with those constructed anywhere. As to the facilities for making engines, boilers, mill-works, machinery in general, iron structures of any kind, bridges, &c., our resources are only limited by the country's requirements. All the machinery manufactured in the colony has the special recommendation of being strictly adapted for local and special requirements—advantages which the imported machinery cannot possess, being made in most instances by those who are quite ignorant of the country and its special requirements. Consequently, in many instances, alterations and modifications of various kinds have to be made before the imported article is suitable for its intended work: thus the ultimate cost is, in some cases, raised to more than the local manufacturers' price. We think that the experience of the late Government, particularly with their rolling-stock, will amply bear out the above statement. We wish to state as our candid opinion that the whole of the colony's requirements, with very few exceptions, in machinery, rolling-stock, &c., can be produced in the colony, and in most instances as cheaply as the imported article—that is, when all commissions, forwarding, freight and local charges are added to the invoice-cost. This, of course, applies more especially to large quantities, such as the Government are accustomed to import. It would also be necessary, in cases where suitable materials cannot be obtained in the colonies, to give the contractor sufficient time to import the same. We would suggest that, as a safe and satisfactory method of obtaining tenders, the Government should take one of the best makes of, say, locomotive engines, and say, This engine cost £———— sterling, delivered at a seaport town in the colony (said cost to include all commissions and Home-charges, as well as shipping expenses); also say, Cost of unpacking, erecting, inland carriage, re-erection, altering furnace to adapt for native coal, spark-catchers, &c., £————. Total cost, delivered where required, £————: then call for tenders to deliver ten or twenty locomotives, the first to be delivered in ——— months (allowing time to get the necessary material), and one or two every month after. If it is then stated that the Government will go on with the contract if the cost does not exceed — per cent. over the cost of the imported engine, we are confident that a number of firms would be found willing to tender. The same thing applies to railway-carriages, wagons, signal-posts, cranes, and also bolts and spikes for railway purposes—in fact, this rule would apply generally to all the requirements of the Government. We may mention that when the public works scheme was first introduced, and a large number of skilled

workmen were brought out by the Government, our firm and many others concluded that the Government intended to have their work done in the colony; and, as the men were of little use without machinery, we were induced to make and erect additional machines of many kinds, suitable for the class of work likely to be done. We, like the workmen, have been much disappointed at the action of the Government. Our machinery is and has been standing idle, and the tradesmen walking about the streets, or taking to pick and shovel or other work they may get to do. The machinery we have at present erected is capable of employing from 600 to 700 hands, while we have not been able to get work for more than 120 to 150, and lately not more than half that number. We need not point out to the Commissioners that, if we could keep all our machinery going, we would be in a position to turn out our work much cheaper; and, of course, the same fact applies to other manufacturing firms. We had almost forgot to mention a fact which further bears out our opinion that work can be done as cheaply in the colony as elsewhere. Some five years ago the Government called for tenders for points and crossings, and the contract was taken up at very little over the imported cost. Afterwards tenders were called for a larger quantity, which were taken up at a much lower price, and, we believe, less than the cost of the imported ones; and all contracts since have been taken at or below that price. We enclose with this a certificate obtained from the District Engineer, which refers to the dredge built by us for the Greymouth Harbour. The successful working and satisfactory results of this dredge are worthy of mention. The Government have shown their appreciation of it by calling for tenders for a dredge double its capacity and power. Our firm have again secured the contract; this dredge also being for Greymouth; and we have confidence that the results will be satisfactory to all concerned. We mention this to prove that, where the Government has given local industries a fair trial, the results have been satisfactory. We therefore sincerely trust that the present and future Government will avoid the errors of the past, and do all possible to foster these institutions in our midst.

We have, &c.,

KINCAID, McQUEEN, AND Co.

MEMORANDUM FOR ENGINEER IN CHARGE OF MIDDLE ISLAND, *re* Dredge at Greymouth.

District Engineer's Office, Greymouth, 8th January, 1879.

I HAVE the honor to report that the dredge, as provided for in the contract with Messrs. Kincaid, McQueen, and Co., has been completed in a thoroughly workmanlike manner, to my entire satisfaction; and that it works well in all its parts, and does the duty for which it was ordered in a most satisfactory manner. This is all the more creditable to Messrs. Kincaid, McQueen, and Co., both as engineers and contractors, for the reason that the contract and specification were such as to leave it to their professional standing and reputation, rather than to make it legally obligatory, that they should furnish a really creditable machine; and I hope that their having so honorably fulfilled the spirit of their contract in this instance will redound as it should do to their future profit, by similar trusts being reposed in them hereafter. I should also wish to state that Mr. Alexander Low, the contractors' foreman who has erected the dredge here, has been most obliging and careful to meet our requirements in every possible way, so that, besides a thorough knowledge of his business as a practical engineer, which he so evidently possesses, he has united the most untiring energy and anxiety to make the work a success, and to facilitate our carrying it on hereafter in his absence.

C. J. O'CONNOR,
District Engineer.

MEMORANDUM FOR W. N. BLAIR, Esq., Dunedin, *re* Greymouth Dredge.

Public Works Office, Hokitika, 7th July, 1879.

I THINK it but fair to Messrs. Kincaid, McQueen, and Co. to report for your information that the dredge at Greymouth has been even more than fulfilling the terms of specification under which she was built—namely, to dredge 50 tons per hour; the quantity dredged during June having been 13,286 tons, giving an average of 511 tons per day of nine hours, equivalent to nearly 57 tons an hour on the average all through, notwithstanding the fact that there were two days during which very little work was done, in consequence of floods, &c.

C. J. O'CONNOR,
District Engineer.

We may mention that these memoranda were handed to us for perusal by the Resident Engineer at Dunedin.

K., McQ., AND Co.

No. 129.

Mr. CHARLES HAWKESWOOD to the Chairman of the Commission on Local Industries, at Timaru.
SIR,—

Staffordshire Ironworks, Auckland, 16th April, 1880.

In answer to circular *re* Royal Commission on Local Industries, I beg to forward you a list of articles in my business which I consider can be manufactured with advantage in New Zealand, provided a protective duty as below be put upon the imported articles. In addition, I beg to recommend a small bonus to coal-field proprietors in New Zealand, to produce an article fit for coking and working iron in general, similar to the Grey River coal, which possesses these properties, and is, in my opinion, superior to Newcastle; and a bonus offered for its production would have the effect of keeping its price within bounds, and enable it to be carried to all parts of the colony for manufacturing purposes. This, I think, would have the effect of inducing coal-field proprietors to sink deeper, in order to obtain a better quality of coal, which I consider the most essential article in all iron and steel manufactures. At the Miranda and other places, I am given to understand that there are large beds of iron ore, limestone, fireclay, and coal, sufficient to last New Zealand for a considerable number of years. These, I think, are the mainsprings of all industries, and, to insure their success, should be at once attended to;

and for this purpose a bonus should likewise be given by the Government, for the making in New Zealand of, say, 500 tons of pig-iron and 100 tons of steel per annum, to last for five years, or longer, according to quantity made. All imported coals should remain as they are at present, free, until New Zealand coal of a superior quality to that now produced can be obtained in sufficient quantity to supply the manufacturers. Then a small protective duty might be put on all imported coal. In connection with local industries being fostered, I beg to bring to your notice the difficulties and disadvantages under which I labour. I forward, attached, particulars of the protective duties that, in my estimation, would be sufficient to stimulate native industries, and make us a productive community. I also desire to state that America is allowed to send her manufactures in here free, and glut our markets, while, on the contrary, America charges a high protective duty on our goods. Another point is the fact that machinery of all classes is imported here free of duty, notwithstanding that the materials used here, such as coal, coke, iron, &c., along with our tradesmen's wages, are from three to five times greater than the same in America and England. We have likewise to contend against an *ad valorem* duty of 11 per cent., including packages, on the very articles we require and use here in the manufacturing of engines and machinery, and enumerated in our tariff under the head of "brass manufactures," such as cocks, gauges, valves, valve-boxes; "ironmongery," such as bolts, nuts, screws, hammers, and files; whilst at the same time engines complete in every respect are allowed to enter free with all these attachments. I am of opinion that a small protective duty on machinery would be of no service, and, in order that I should be placed on a fair footing, the import duty should be equal to that of competing countries, such as England and America. In England about one-third less wages are paid than in New Zealand; and, by list attached, I recommend a duty of not less than 35 per cent. on machinery of all sorts. These rates are considerably less than those now ruling in America, whose manufacturers—with free ports here—are flooding our markets with all classes of machinery. From England, also, heavy stocks of machinery are consigned to this port, and admitted free, and are now crowding the already overstocked markets, to the detriment of our workshops and tradesmen, who are nearly wholly without employment, and a great number in a destitute condition, whilst thousands of pounds, which could be kept in the colony, thus affording employment to its population, are being sent away to enrich other countries. All descriptions of raw material must be allowed to come into the colony duty-free until they can be produced in the colony.

I have, &c.,

C. HAWKESWOOD.

List A.

List of machinery, &c., which I can manufacture provided a protective duty of 35 per cent. be put on the same goods imported.—Marine engines and boilers; horizontal engines and boilers; portable steam and gas engines; steam hoisting engines and boilers; ship steam-winch; all kinds of land engines; brick, pipe, and tile making machines; biscuit-making machines; flour-mill machinery; chaff-cutting machinery; turbine and water wheels; saw-mill machinery; iron castings of all kinds; iron ornamental castings; iron grave fences; iron ornamental or plain columns; iron sewer-castings of all kinds; iron street-lamps and posts; iron waterworks plant; iron gasworks plant; iron girders of all sizes; iron oven doors and frames; iron-bending machinery; iron kitchen ranges; iron ships' stoves; iron register grates; iron register sham fronts; iron blocks; boring machinery; sawing machinery; brewing and distillery plant; carriage bolts and nuts, tie-bolts; iron hawse-pipes and shackle-holders; cheese-presses; copper boilers; earth-closets; forge backs and bellows; portable forges; hydraulic rams; hurdles; plates for lime-kilns; sheaves for blocks; shoes for piles; iron spouting (cast); urinals for public use; candle-making machinery.

List B.

List of machinery, &c., which I can manufacture provided a protective duty of 35 per cent. be put on same goods imported, unless otherwise mentioned.—Crab-winch, cranes, capstans and windlasses of all kinds, iron bridges and all material which may be specially imported for the construction of bridges, wharves, jetties, or patent slips, should be 30 per cent.; planing, punching, screwing, and shearing machines, 35 per cent.; turning machinery, quartz-crushing mills and batteries, 30 per cent.; iron wool and hay pressing machinery, 35 per cent.; pumps and other appliances for raising water, 40 per cent.; railway plant and all other material which may be specially imported for the construction of railways and tramways, 25 per cent.; axle arms and boxes, 35 per cent.; artificers' tools, 40 per cent.; buckets and tubs of iron, 30 per cent.; carriages, carts, and wagons, 25 per cent.; carriage-wheels, 35 per cent.

List C.

List of machinery, 35 per cent. duty, unless otherwise mentioned.—Coffee-roasting; confectionery; constructing concrete houses; curving corrugated iron; cutting gas and water tubes; cutting and shaping coffee-tins; lead-pipe making; manufacturing boots and shoes; road-scraping; street-sweeping; paper-cutting; mangles; naves for wheels; sausage-making machines; tinsmiths' machinery; tin-stamping presses; tube-rollers; street direction-plates; sashweights; water-barrows; washing-machines and mangles by steam-power; wood-working for doors and sashes; iron wood-clamps; gas-stoves (this is specially required), 40 per cent.; iron steam-ships, 300 tons upwards, 25 per cent.; iron steam-ships, 50 to 300 tons, 30 per cent.; iron steam-yachts, 5 to 50 tons, 35 per cent.; iron ship-castings, tanks and boilers of all sizes, 35 per cent.; agricultural machinery and implements, 35 per cent.; edge-tools of all kinds, 35 per cent.; spades, shovels, picks, 35 per cent.; rough ironmongery, from 25 per cent. to 45 per cent. All descriptions of raw material to be admitted duty-free until it can be produced in the colony.

List D.

Ironwork and ships' chandlery can be produced if import duty as under be imposed.—Galvanized wrought-iron hooks and thimbles, 40 per cent.; black wrought-iron hooks and thimbles, 25 per cent.; clip-hooks and thimbles, galvanized and black, 30 per cent.; anchor and chain shackles, 35 per cent.;

screw-shackles, black and galvanized, 30 per cent. ; chain-hooks, 30 per cent. ; belaying-pins, 30 per cent. ; riggers' screws, 30 per cent. ; galvanized-iron clews and ring-bolts, 30 per cent. ; boats' small rudder-irons, black and galvanized, 30 per cent. ; boats' hooks and rowlocks, 30 per cent. ; iron pulley-blocks, marlinespikes, 30 per cent. ; caulkers' tools, punches and chisels, 30 per cent. ; maul-rings and wedges, bullock bows and chains, 30 per cent. ; shingle and porting knives and hammers, 30 per cent. ; S hooks and split links, 30 per cent. ; anchors and chains, under 3 cwt., 25 per cent. ; all brass mountings, including sidelights, 40 per cent. ; all brass hinges, quadrants, belaying-pins and cleats, 40 per cent. ; steering-wheel, 40 per cent. ; binnacles, 40 per cent. ; ships' windlasses and winches, 30 per cent. ; rudder-bands, 30 per cent.

List E.

List of brass fittings which I can manufacture provided a protective duty of 35 per cent. be put on same goods.—Barrel unions ; pendant bodies ; ceiling-plates ; sunlight bodies ; rose-pieces ; cork slide pendants ; harp lights ; gas-brackets ; brackets' backs ; pendant swing tops ; pillar-lights ; high-pressure bob- and stop-cocks ; tapping cocks ; basin and bath valves ; toilet cocks ; shower-bath valves ; closet-valves ; treble plugs and washers ; copper hose-pipe, with unions and jets ; trap-screws ; hose unions and joints ; fire-hydrants ; ships' waterclosets ; basin-plugs, with washers and unions ; beer-pumps ; lift-and-force pumps ; steam stop-cocks ; pet valves ; retention valves ; check valve-boxes ; tallow-cups ; steam-whistles ; church and school bells ; cattle-bells ; dump spikes ; sheathing-nails ; ships' sidelights ; ships' rudder-bands ; ships' belaying-pins ; ships' wheel-caps and bands ; ships' rowlocks ; ships' ornamental steps and rail-guards ; gas-cocks ; stove-cocks.

No. 130.

Mr. CHARLES WOOLGAR to the Mayor of Auckland (forwarded to the Commissioners on Local Industries).

SIR,—

Auckland, 16th April, 1880.

In reference to the colonial manufactures, I beg to say that there is an article which has been largely imported from Sydney and Melbourne which we are manufacturing—namely, colonial ovens. In order to assist colonial manufacture, we think the duty should be more than at present on those articles. As they pay less for their iron than we do here, they may consequently be a slight thing cheaper than ours.

I have, &c.,

CHARLES WOOLGAR.

No. 131.

Mr. GEORGE DANIEL BURKE to the Mayor of Auckland (forwarded to the Commissioners on Local Industries, at Wellington).

SIR,—

Auckland, 16th April, 1880.

I respectfully request that you will be pleased to transmit the following statement *re* local industries to the Royal Commissioners at Wellington.

I have, &c.,

GEORGE DANIEL BURKE.

I beg to state, for the information of the Commissioners, that I have been manufacturing every description of bellows in Auckland during the past ten years, and that during the whole of that time I have had no protection from the Government to encourage my industry, although I repeatedly applied for protection. At present the foreign article is allowed to be brought into the colony free of all duty, and a heavy duty has been put on all ironmongery, tacks, nails, &c., used in the manufacture of bellows. The ironmongery, tacks, nails, &c., used for manufacturing purposes cannot be obtained here at present. There is a great demand for bellows in the colony, and it is a pity to see large sums of money going yearly into a foreign market for bellows when the same article can be manufactured in the colony at as cheap a rate and as good as any imported article. I would suggest that a duty of 25 per cent. be put on every description of bellows imported into the colony: this would enable me to compete with any foreign market, and also to employ more labour. I would further suggest that all ironmongery, tacks, nails, portable forges, hearths, pipes, &c., be allowed to come into the colony free of duty when required for manufacturing purposes.

No. 132.

Messrs. SCOTT Bros. to the Christchurch City Council (forwarded to the Commissioners on Local Industries).

SIR,—

Christchurch, 19th April, 1880.

We beg to acknowledge receipt of your communication of 13th April, having reference to the inquiry of the Government for particulars concerning local industries, to which we have the honor now to reply. We think that our particular industry should be encouraged by the imposition of protective duties. Having assisted in drafting the report of the Society for Promoting Local Industries to the parliamentary Select Committee, the recommendations made in that report represent our views as to the manner in which those duties should be imposed. We subjoin a copy of the report above mentioned, expressing a hope that your Council will see its way to indorsing the recommendations it contains. We may give as an illustration of the fallacy of the argument that a protective tariff always increases the cost of goods to the consumer, the fact that kitchen-ranges are now sold in Christchurch at just about one-half the price they were sold at four years ago, and that, instead of the extra 5 per cent. duty imposed having had the effect of raising the prices, the opposite has been the case. We may add that this branch of our business has kept about ten men employed during the whole of the past season of depression. This, of course, refers only to our own works. Taking the whole city in we should say about thirty men have been employed in this trade alone. We may add that any

particular branch of our business taken in hand in the same way would give the same results. It takes some time to break down prejudices and create a demand such as will enable the cost of manufacture to be reduced to a minimum. This can only be done by a judicious protective tariff, which will give the local manufacturer the command, to some extent, of the trade.

We have, &c.,
SCOTT BROS.

REPORT of Association for promoting Local Industries.
Report No. 6.—Iron and other Metal Manufacturing Trades.

Article.	Rate of Duty under existing Tariff.	Rate of Duty Recommended.
Iron buckets and tubs	10 per cent.	20 per cent.
Iron staples, standards, straining-posts, and apparatus	1s. per cwt.	1s. 6d. per cwt.
Galvanized sheet-iron (plain)	" "	Free of duty
Galvanized sheet-iron (corrugated)	" "	1s. per cwt.
Galvanized tiles, ridging, guttering, and spouting	" "	10 per cent.
Iron safes, strong-room doors	10 per cent.	20 per cent.
Tinware (plain)	" "	15 per cent.
Tinware (japanned)	" "	20 per cent.
Tinware (stamped)	" "	" "
Weighing-machines	" "	" "
Zinc (sheet)	" "	Free of duty
Zinc (manufactured)	1s. per cwt., or 10 per cent.	15 per cent.
Axles, axle arms and boxes	Free of duty	Free of duty
Weighbridges for carts	"	20 per cent.
Manufactured iron for bridges, wharves, jetties, patent slips	"	15 per cent.
Lamp-posts	"	20 per cent.
Lamps and lanterns	10 per cent.	" "
Rivets for boilers	1s. per cwt.	Free of duty
Machinery for agricultural purposes, for boring, planing, punching, sawing, shearing, turning, crushing, for mills and looms, wool and hay presses	Free of duty	10 per cent.
Pumps and other apparatus for raising water	"	" "
Boilers	"	20 per cent.
Steam-engines (except portable threshing)	"	15 per cent.
Crab-winchcs, cranes, capstans, windlasses	"	20 per cent.

No. 133.

Evidence of Mr. HENRY WAITE, Tinsmith, before Messrs. Commissioners Tinne and Burns, at Auckland, 30th April, 1880.

MY name is *Henry Waite*. I am a tinsmith. I have been in New Zealand sixteen years. I was not aware, until receipt of letter from the Commissioners, that tinsmiths' fittings were free, as up to the present time I have been charged the duty on any goods purchased from the importer. I think if a heavier duty on tinware than 15 per cent. were imposed it would not increase the cost of the article to the consumer, but would have the effect of stopping the importation and sending the trade to purchase from the manufacturers of tinware. I have introduced machinery into the manufacture of tinware. When I commenced business I paid the men 5s. per day wages; now I pay 10s. per day, and have reduced the price of tinware about 200 per cent. The object of asking for an increase of duty is to stop importation, as the importer gets a higher profit by importing, while the consumer does not get any benefit by purchasing the imported article—in fact, the consumer gets a better article manufactured in the colony at the same price as the imported article; and, were the importation stopped, there is sufficient competition in the trade to prevent the consumer being overcharged.

HENRY WAITE,
Manufacturing Tinsmith.

No. 134.

Evidence of Mr. GEORGE McCAUL, Tinsmith, before Mr. Commissioner A. J. Burns, at Grahamstown, 13th May, 1880.

MY name is *George McCaul*. I have been nineteen years in New Zealand. My trade is that of a plumber and tinsmith, at which I am at present employed in Grahamstown. I can compete with the ordinary tinware—in fact, have stopped the importation of the ordinary tinware; therefore I hope the tariff on this will not be disturbed. But at present I am unable to compete with the importation of stamped tinware, because the freight and charges upon these goods is very small, owing to the small bulk into which they pack. If another 10 per cent. duty was imposed upon these goods, now that I have got machinery for making them, I could stop the importation, and eventually the consumer could procure or purchase these articles at a cheaper rate than now. These remarks apply to galvanized-iron buckets, tubs, and baths. I am procuring the machinery for making these goods.

GEORGE McCAUL.

No. 135.

Mr. G. THORNICROFT to the Chairman of the Royal Commission on Local Industries.

SIR,—

Dunedin, 17th May, 1880.

I am a stove and range maker. I came to this country about eight years ago, and, finding no one in my line of business, I had to get work as best I could, until I hurt myself and got discharged. Two years after my arrival I set to work doing any little job I could get, repairing and buying broken pots and fenders, locks and any cheap hardware. I took a little shop to work in, and sold my mended wares. I engaged a man to cast some range-metal and grates from my pattern, which he did, using my pattern and my knowledge for his own purposes. Of course I could not compete with him, as he had a foundry, so I set my mind on a foundry for the purpose of making up work under my own supervision. I will not trouble you with the amount of labour, anxiety, and care it has cost me—and I say it with all humility, that nothing but a striving and determined spirit, and the blessing of God on my efforts, has enabled me to get on so far in my work—but my impression is that neither free-trade nor protection will ever make work for the men at present unemployed, and I am quite sure that no man can make any articles in the iron trade and pay the present rate of wages, and give the retailer a profit for selling. I have at present four men and four lads; I have to manage my own business, keep my books, and sell my goods, and then do a good share of labour very often when the men are resting. These are not great inducements for men to start in business; and I have thought if the Government was to lend us little men a hand, they would be doing us a good turn. Only the thought of this being a Commission seems to give me encouragement. Perhaps the Railway Managers could give us an order for the grates for the stations, or any little job. I am not able to take large jobs, and never shall be unless I get some help. I have thought of another way in which the Government can help us and do themselves a great good: to give each manufacturer (say men with good characters) a piece of land by the side of a railway-line for ten years, with the option of purchase at a nominal price. If I was to start a place on, say, twenty to fifty acres, all the men could live on the place; I should get better men and save the rent; and the railway-fare for materials and wares would more than pay the interest on the land, to say nothing of the novel way to open up the country. There is no doubt that this is a splendid country, and of all people and nations we ought to have thankful hearts. There is one thing we need as a people—that is, iron. I know we are very poor, but if a small bonus could be spared to prospect for this useful metal, I think it would not be wasted or thrown away. In conclusion I may say, if you can spare a few minutes in Cumberland Street, I shall be most happy to see you and answer any questions you think proper to ask. Wishing you every success and blessing,

I have, &c.,

GEORGE THORNICROFT.

No. 136.

Evidence of a DEPUTATION from the DUNEDIN NATIONAL INDUSTRIAL ASSOCIATION before the Commission, at Dunedin, 18th May, 1880.

Present: Mr. E. Wakefield (in the chair), Mr. E. C. J. Stevens, and Mr. J. W. Bain.

Mr. A. Burt said: Mr. Wakefield, as Vice-President of the National Industries Association, I may mention that we are here to-day to lay before you a statement with regard to the working of the tariff and the various matters connected with it; and the different delegates now present will be able to explain to you how the tariff affects their own various trades. Before sitting down, I would first like to explain to you a little grievance connected with our own trade. I may say, first of all, that the alteration made in the tariff last year met with the approval of our trade in Dunedin, with the exception of the exemptions. We find that the largest consumers of our class of manufactures are exempted. As I said before, we are perfectly satisfied with the tariff as it stands, if the exemptions are wiped away, and corporate bodies are placed on the same footing as private individuals. I do not see why that should not be so. Another matter is this: A lot of these exemptions are classified in such a way that, as you are no doubt aware, many complications have occurred throughout the colony. In our experience we have found that certain articles have been passed in free in some places, while in other places they have been treated as dutiable. For instance, service-cocks, which, I have just mentioned, are brought in under that class of goods specially imported as manufactured and as intended for the erection of gas and water-works; and, being brought in under that head, they were admitted free. In Wellington, I know for a fact that private importers were getting them in free like this, whilst down here we were paying duty on them, until our representative, who travels over the colony, found out what was being done; and after that we immediately followed suit. As to these exemptions, I may say, for myself and other colleagues in the trade, that we desire that a lot of them should be wiped off. We think, by doing so matters would be simplified a great deal. For instance, if a bell is imported for a place of public worship it comes in free, while if a bell is wanted for fire or other public purposes duty has to be paid on it. We think they should all be dutiable alike. Then there are "brass service-cocks for gas or water." It is only within the last twelve months that these appear distinctly amongst the exemptions. They were previously passed in under the cloak of "things required for the construction and erection of gas and water-works." Then there are copper boilers for cloth factories; but anybody else using copper boilers—for instance, a brewer, or even a washing copper in a private house—has to pay duty. Then there are gaseliers for places of public worship, which are admitted free. We in the trade, and we as private individuals, do not see why we should have to pay 15 per cent. for gaseliers, whilst anybody else gets them in free. We think that this exemption should be wiped off. As a rule, most gaseliers required for places of public worship are made to suit the design of the building—I do not think one in a hundred is imported; therefore, I think if you knocked off this exemption it would be better. Then there are pumps, which we now make very largely, and other apparatus for raising water, which are also exempt. We have been able for some considerable time to compete with the importers of pumps. We can sell our manufactured pumps as cheap as the importer can sell his. Our firm has thirty lathes at work making this class of brass goods, which means employment to thirty

finishers and three moulders. Even with the old tariff of 10 per cent. we were able to put our finished work into our warehouse as cheap as it could be imported; but since the tariff has been raised to 15 per cent. we find that our trade has increased in this line. The extra 5 per cent. now enables us to supply some of the importers; and as a result we are now able to make a gross of articles where we formerly only made a dozen, thus reducing our cost, and also the cost to the consumer. But when these exemptions came in they undid for us what the Legislature had previously done. For instance, if pumps were not exempted the increased demand for the local make would enable us to manufacture a larger quantity, and thus reduce our cost. Then there are patent water-closets for houses. That is an industry we have been occupied in for the last five years. We only make what we sell ourselves; we could make to sell to the trade, but they still import. We only make about 10 per cent. of what is imported. If this exemption was struck off, the trade in this article would become local, and keep a large sum of money in the country. These are the only grievances our trade has got to complain of. We are quite satisfied with the protection we have; none of us desire to see it increased. If these exemptions in favour of large consumers were thrown off, and every one put on an equal footing, we believe that the present tariff would have the effect of increasing our industry tenfold. I have not the slightest hesitation in saying that, with these exemptions wiped away, instead of a little over forty brass-founders being employed in Dunedin as at present, over a hundred would be employed. I have every confidence, too, that the consumer would not have to pay any more; in fact, I think that just the reverse would take place, because local competition would spring up in our midst, which would, of course, reduce our profits, and the consumer would be correspondingly benefited. At present the manufacturer gets importer's profits. We do not sell at any loss. Most of you are well aware what importer's profits mean—the importer does not sell at a very small percentage. But when you have a keen competition amongst local manufacturers, the chances are that the consumer would get the benefit. I have only to repeat that our desire is that the exemptions which I have mentioned should be swept away—in fact, the whole community should be put on one footing. We think it wrong that any corporate body should get in goods cheaper than private individuals. Before I call upon the other delegates to address you, I might ask Mr. Anderson, who is in the same trade as myself, to give you some information on the subject I have dealt with.

187. *Mr. Stevens.*] Have you got in your hand a list of the exemptions you object to?—Yes, but it is only a rough memorandum; I will supply you with a proper list afterwards.

188. There is just this question I would like to ask: Will Mr. Burt tell us whether, in his opinion, the 15 per cent. is a duty of a distinctly protective character? From what he has said I gather that that is his view?—Yes, I stated that distinctly. We have no desire for any more. The 15 per cent. only gives an impetus to the manufacturers to supply the present importers.

189. I wish to get this out of you a little more clearly: Is it your opinion that the 15-per-cent. duty is distinctly protective?—Yes.

190. *Mr. Bain.*] I do not quite clearly understand you in reference to the making of closets. You state that you can make them for your own trade, but it would not pay to extend your manufacture?—I cannot sell to the present importer at a price that would allow him to retail; I sell to importers' customers, as there is no margin to work upon.

191. In other words, there is not sufficient margin to allow the importer a profit?—We cannot, with these exemptions, allow the importer a profit on our goods. It may be explained in this way: If a closet were wanted, either Mr. Morrison or myself could sell it as cheap as it could be imported; but at the same time we could not sell it to the importer at a price that would leave him a profit if he wanted to sell it to you. That is the meaning of it.

192. *Mr. Bain.*] You cannot supply the whole trade?—I can supply the retail trade. If the exemptions were thrown off we feel sure that we could supply the whole trade.

192A. *The Chairman.*] I wish to ask you just one question: Supposing the duty of 15 per cent. were lowered or abolished altogether, could you still compete with the importer in brasswork?—Yes, if the whole of the exemptions were thrown out. We, after a time, could compete, with a 10-per-cent. duty. Of course we prefer 15 per cent. I should prefer the old 10-per-cent. duty with no exemptions, because these exemptions are in favour of the largest consumers. These people want a gross, and get them in free; whilst another party, who only wants half a dozen, has to pay duty.

193. I think you stated that the exemption in favour of brass fittings for gas and water-works was largely taken advantage of for purposes of ordinary trade?—Yes.

194. And that it led to a great deal of dishonest trading?—Yes. Of course some people do not call it dishonest, because there is no strict rule about it; still, it leads to that result. I repeat that we were far better satisfied with the old 10-per-cent. duty without these exemptions than we are with the present 15-per-cent. duty and the exemptions. For a long time I was paying duty on water-closets imported, because I did not consider them to be patent closets; but other people imported them as patent closets, and so got them in free.

Messrs. A. and T. BURT to the Commissioners on Local Industries.

GENTLEMEN,—

Dunedin, 18th May, 1880.

We herewith beg to hand you list of exemptions in present tariff which we consider should be subject to duty—viz., (1) Bells for places of public worship; (2) brass steam-fittings, at present admitted free under the head of "Steam-engines, and parts of do.;" (3) brass service-cocks, ferrules, &c., for gas and water, at present admitted free under the head of "Materials which may be specially imported for the construction of gas and water-works;" (4) gaseliers for places of public worship; (5) copper boilers for cloth-factories; (6) pumps, lift and force; (7) water-closets, and parts of water-closets; (8) copper pipes for steam-engine purposes; (9) lead pipe and composition pipe, specially imported for the construction of gas- and water-works.

We have, &c.,

A. AND T. BURT.

Messrs. A. and T. BURT to the Commissioners on Local Industries.

GENTLEMEN,—

Dunedin, 19th May, 1880.

No. 9 exemption on the enclosed list does not appear on the Government tariff; but we believe that at some of the ports the same is admitted free under "Materials especially imported for the construction of gas and water-works." We would therefore suggest the advisability of defining these exemptions. We may mention that our Collector in Dunedin, Mr. Huckworth, does not allow lead pipe to come in free under the above clause; but we are of opinion that, according to the way it is framed, such might be insisted upon. Your kind attention to this will oblige.

We have, &c.,

A. AND T. BURT.

No. 137.

Evidence of Messrs. REID and GRAY, Ironfounders, before the Commissioners on Local Industries, at Dunedin, 18th May, 1880.

MR. REID: We have very little to complain of at present. Formerly we paid duty on nearly everything we imported; but now nearly everything is free, with the exception of timber, the duty on which is costing us about £100 a year just now, while finished implements come in free. We think that, while a duty is put on articles that we use in our manufactures, there should be a corresponding duty on the articles that now come in free. We do not consider it free-trade at all that we should be handicapped against the importers.

195. *Mr. Stevens.*] Will you kindly mention the classes of timber that you use?—Hardwood, for instance. We cannot find it in this colony; indeed, it is impossible to get it here. We use blue gum chiefly, and also ironbark.

196. And Australian hickory?—That is now free.

197. Are you of opinion that the reimposition of timber duties has been a hindrance to your industry?—Certainly. It is a matter of £100 a year to us at the present time.

198. Does that represent any considerable percentage?—On some articles it is as much as 20 per cent. For instance, swingletrees for ploughs. If they came from Home they would be admitted free.

199. *Mr. Bain.*] Have you succeeded in making reaping-and-binding machines?—No. No doubt we shall when we take the thing in hand.

200. You are making all kinds of agricultural machinery with the exception of reaping-and-binding machines?—Yes: we make nearly all kinds of agricultural implements. We make reaping-machines, ploughs, harrows, and seed-sowers.

201. You are quite satisfied with things as they are, with the exception of the timber duty?—Yes.

202. If you had a rebate of that for manufacturing purposes, it would meet your requirements?—Yes.

203. *The Chairman.*] Can you not get plenty of blue gum in the colony for manufacturing purposes?—No; not grown in the colony.

204. Is there none in New Zealand?—There is not sufficient. There are some hardwoods in the colony, but you cannot get them. We have advertised for it.

205. Then it is not in the timber-market of the colony?—It is in the bush, but not for sale in the colony. Ironbark would answer for a good many purposes; but it is impossible to get it.

206. I suppose this little duty on timber puts you to a certain amount of expense: there is a certain amount of clerical work to be done, &c.?—We pay £100 a year now, which is a rather large sum.

Mr. Gray: On one present invoice of timber we are paying £20 for duty.

207. *The Chairman.*] Would it be better to take it away altogether, or to allow a rebate?—The better way would be to do away altogether with it.

208. Your business is extending?—Yes, very steadily.

209. And you make all kinds of agricultural implements?—Yes; we employ from 130 to 150 hands regularly.

No. 138.

Messrs. FRASER and TINNE to the Chairman of the Royal Commission on Native Industries, Wellington.

SIR,—

Auckland, 27th May, 1880.

We wish to bring under the notice of the Commission an especial hindrance to private industry, from which we have suffered ever since the initiation of the public works policy. We have been carrying on the business of engineers and ironfounders in Auckland since 1864, and up to 1872 had a well-established and prosperous industry. When the railway-workshops were commenced we wrote to and met Sir Julius Vogel, and expostulated with him as to the Government entering into competition with us in the manufacture of machinery and other things for which we had specially laid out our plant. We represented to Mr. Vogel that the workshops being worked by the Government would require a large number of skilled workmen, and, not only would our artisans be drawn away from us, but we should also be deprived of work which we had good grounds for supposing would have been open to public competition. He requested us to furnish him with a specification of the kind and number of tradesmen that would be likely to be required in the Government workshops in Auckland, so that such hands could be obtained from abroad, and thus our hands would not be drawn away from us. We did this, and received a letter from him stating "that just such an assortment of hands had been ordered by the Agent-General to be sent from England." The outcome of the whole matter is that, while our trade has from various causes continually fallen off, it has at the same time become more and more unprofitable to us, from the enormous rates which we have been compelled to pay for labour directly in consequence of the competition of the Public Works Department for the skilled labour that has been available. We have trained apprentices, and as soon as they have been "out of their time" they have

gone to the railway-workshops; and journeymen have been offered higher wages at the railway-shops than the then current rates of wages, and have left us to take the higher pay. The consequence is that we cannot now undertake contracts such as we could formerly carry out with advantage to ourselves and to the public, and our works are literally almost completely at a standstill. Whether or not the present system pays the Government may be surmised from the fact that the casting of iron and brass had to be given up by the Government, and the work is now done by private firms under tender. We submit this grievance to your consideration, believing that we are well supported by the maxim that "the State should not engage in any work that can be efficiently done by private enterprise."

We have, &c.,

FRASER AND TINNE.

P.S.—We wish also to represent that, whereas we had gone to great expense to establish a forge, with steam-hammer, for working large shafts, &c., from scrap-iron, we find that now our competitors in the trade, our customers, and others can get their forgings done by Government at Port Chalmers, at a price that is minimized by the fact that the Government have not to allow for a margin to cover interest of money and sinking fund on depreciation of plant, which charges naturally fall to the taxpayer to defray.—F. AND T.

WOOLLEN MANUFACTURES.

No. 139.

Mr. W. STEELE to Mr. Commissioner Tinne.

SIR,—

Hamilton, April, 1880.

I enclose a suggestion from Mr. Potter, for the encouragement of local industries in respect of flannels. He has had a very large experience with hand-loom in England; in the part I came from it was a very common thing to have one or more hand-loom in the cottages of the working-class. I am not in a position to say if the hand-loom would compete with the larger mills; but this I can say: "one yard of flannel made by hand is worth two made by power." The latter, after two or three washings, on account of the shrinkage is nearly valueless. One thing in favour of the hand-loom business is: it could be tried at little expense. If it would give employment, even at a low rate of wages, to some of the surplus labour in some of the various towns of the colony it would be of great service. I hope you will give it your consideration and assistance if you think there is anything in it. Mr. Potter will gladly give you any further information you may require.

I have, &c.,

W. STEELE.

No. 140.

Mr. ALBERT POTTER to the Royal Commission on Local Industries.

Hamilton, 18th March, 1880.

SIR,—

Manufacture for the Employment of the Increase of our Population.

When the colony accepted the policy enunciated by Sir Julius Vogel—public works and immigration—it was foreseen that at the end of the borrowing power stagnation to a certain extent would follow. Before the last of the money is absolutely absorbed we find a want of employment for able-bodied men, a cry for labour is already going through the land, the last legitimate resource is already made, an appeal to Government for work; if this was all, it might be tided over, but we have a much greater demand to meet—to find employment for the increase of our population, the recent emigrant and the families of the colonists. It is impossible to make them all hewers of wood and drawers of water, impossible they can all become servants; and, although it has been plainly put with a force only equalled by truth, as regards the principle "the land for the people and the people for the land," it is also impossible that they will all be able to follow agricultural and pastoral pursuits. The experience of America, and more recently Victoria, has demonstrated the absolute necessity of manufacture, the employment of our population, the utilizing of our raw material, the retaining within the colony the money that would as a matter of course be withdrawn to pay for the imported article. Neither is it the manufacture alone of the article actually produced, but that also of which it becomes the creating power, of finding employment to make and produce the machinery wherewith to manufacture. We have waited several months in the hope of seeing, either by private enterprise or public companies, an attempt made to produce tweeds and woollen goods. I need scarcely inform you that no such enterprise seems likely to be undertaken, its non-existence or the probability of its future existence on a large scale being explained, by all who appear to be conversant with the demands of the article required and its manufacture, that the great cost of plant, premises, managers, and engineer, salaries, &c., consequent upon such an undertaking is the great barrier in both instances, in addition to which few persons only would be employed, and those within the vicinity of the mill. I therefore, Sir, lay before you my plan with little hesitation. The simplicity of its detail, its easy management, its peculiar small cost, its adaptability to a large or small community in town or country, its ready employment of both sexes and all ages, at their own time and according to their circumstances, will, I am assured, recommend itself to your favourable consideration, more especially when I inform you that it is a practice long in use in some parts of England and Wales, has been for years, and still holds its own in the presence of and in opposition to the immense capital and machinery employed.

Hand-Loom Weaving.

The comparison of hand-loom wove flannels, blankets, baises, serges, &c., with those made by machine are obviously in favour of the former, the wear being more than treble. The loom occupies but a small space in the house, is accessible at all times and seasons, is a boon in a family, the work in itself being very light in its nature—"the piece," of whatever description, except blankets, wove by male or female of all ages, and in a family the number of looms in proportion; such would be

eagerly taken advantage of by persons who are above the lower class of colonists, and who, through adverse circumstances, cannot descend to humbler pursuits. The loom is made of wood, and is easy of construction. I would import two. The cost would be about £9 each with geers, slays, &c., all complete. Make the looms in the colony from the samples imported. Slays, geers, shuttles, reels, spools, &c., would form a small item to furnish many looms. The next and principal thing is to supply the weaver with the material suitable for the production of the article to be worn—chain and shute, or warp and rift, which is all the goods are composed of, except a little size. A spinning-frame, managed by two hands, would produce a large quantity of yarns, a room 15 feet square would be sufficient for the frames—a single horse turning the gear outside, the same as a threshing machine, bark-mill, or other similar process. The same would apply to the making material for tweeds; according to the local demand for yarns so the number of spinning-frames could be increased. The weaver, if not otherwise provided, makes his own warp, according to the class of goods he intends producing, narrow or wide, fine or coarse, in fact, quality. The competition between spinners and weavers would insure a fair price and a good article, the same as rules the rope-making now in the provinces. Spinning and weaving upon this sure and simple plan, once introduced, would only be an introduction to carpet-weaving. The worsted for hearth and fender rugs is produced from the same spinning-frames, with the addition of a doubling-machine for the threads, and looms equally simple are in the houses of the workmen. With the introduction of the loom and spinning-frames, the weavers and spinners could be brought out as emigrants. For the country to wait for a large and costly plant, with the manifold demands upon it, and that located at a certain place, to become of any practical value, is, as I have before stated, very uncertain. By the introduction of the two-frame spinning-jenny and cottage hand-loom weaving it would spread through the colony at once, is open to persons of any grade and very limited means, and would be eagerly taken advantage of by nearly all families in country districts, and also by those in towns, as there is always a ready market for such manufacture. The hand-loom at a moment's notice relieving the demands upon the individual or family—and, as a consequence, the market kept well supplied with home-made produce, "of itself it would insure protection," and would not fail to become at once what it must be the object of the Government to encourage and foster, "the growth of colonial manufacture from colonial produce." Having been a Brussels carpet-manufacturer, and practically acquainted with the hand-loom and materials required for the manufacture of the articles referred to (including the dyeing of all worsted yarn), I can with confidence assert that it would attain the object sought. As regards Brussels carpets, the machines referred to would spin the worsted, a loom for which complete would not cost more than £25. The refuse of our wools here in quality, except for light colouring, would make a superior article to any imported, as all carpets are made of coarse wools, the quality would be finer, the colours softer. The cost of hand-loom-made best fine-frame Brussels carpet in England is about 3s. 6d. per yard wholesale, sold in the colonies at about 7s. to 8s. per yard, Brussels carpet reduced in quality, as the manufacturers are compelled to reduce to meet the market, is shown in the qualities and prices sold at. The plant for the manufacture of the goods referred to above would not cost more than £500 to £600.

I have, &c.,
ALBERT POTTER.

No. 141.

Evidence of Mr. ISAAC WILSON, Chairman of the Kaiapoi Woollen Factory Company, before Mr. Commissioner A. J. Burns.

Kaiapoi, 20th April, 1880.

My name is *Isaac Wilson*. I reside in Kaiapoi. I am at present Chairman of the Kaiapoi Woollen Factory Company (Limited). This Company has been in existence about one year and nine months; we employ about eighty hands; the paid-up capital is £15,000. The mill is being run long hours, the wages paid are not extravagant, being not so high per day as those being paid to agricultural labourers. Great care has been taken in stock-taking and striking balances, these being now taken quarterly; and, although every economy has been exercised in the management, a very small profit remains to shareholders. I think the cause of this is that we are not able, with the fine wools we are obliged to use, to compete with the British article, which, in many cases, is not made out of pure wool. The goods turned out are principally flannels, blankets, and yarns, although a few tweeds are being made. I am quite convinced that these goods cannot be turned out with profit to the shareholders unless more duty is put upon the imported article. There cannot be a doubt but that the public get better value for their money by purchasing the colonial-made article. The difficulty is to induce the public to give the higher price.

ISAAC WILSON,
Chairman, Kaiapoi Woollen Company.

No. 142.

Joint Letter from the MANAGERS of the MOSGIEL, ROSLYN, and KAIKORAI WOOLLEN FACTORIES to the Commissioners on Local Industries.

SIRS,—

Dunedin, 16th April, 1880.

In reply to your communication under date, Wellington, 17th ultimo, addressed to us, and requesting information regarding local industries or manufactures, together with any suggestions that may occur to us in connection with the same, we, as representing the woollen factories in the Otago District, beg respectfully to submit for your consideration as follows:—

1st. We do not advocate any addition to the existing rate of Customs duty—viz., 15 per cent. *ad valorem*—upon woollen goods, as we consider this a fair enough set-off against—(1) The high rate of colonial interest; (2) the high rate of colonial wages; (3) the cost of bringing out to the colony the necessary machinery, dye stuffs, and other articles necessary in carrying on the business of a woollen factory.

2nd. We are of opinion that the direction in which your Commission might most materially assist us as woollen manufacturers is by recommending to the Legislature the relaxation of the Employment of Females Act, known also as Bradshaw's Act; and we would urge this on your favourable consideration on the following grounds:—

(1.) It does seem hard to us that, after going to the great expense of importing and fitting up the machinery necessary to manufacture woollen fabrics, the Legislature should step in and compel us to let the machinery remain idle for sixteen hours in the twenty-four so as to comply with the requirements of Bradshaw's Act.

(2.) As all the work done in our manufactories is paid by the piece, it seems to us an unnecessary interference on the part of the State to step in and say to the women employed, "You shall not work more than eight hours out of the twenty-four." There is not a week passes that we are not urged by the women employed by us to set the law at defiance by permitting them to continue their work for an hour or two beyond the legalized time. Further, the employment in itself is of the most healthy description, as can be seen by the members of the Commission paying a personal visit of inspection to any of the factories represented by us—in fact, we would most strongly urge the Commission to make such a personal inspection, and we shall be delighted to arrange to enable you to visit any or all of them.

(3.) The relaxation of Bradshaw's Act that we would suggest is the adoption of the system that prevails in England and Scotland, as follows: From 6 a.m. to 6 p.m., allowing two hours for meals, from Monday to Friday inclusive, and on Saturday, from 6 a.m. to 2 p.m., allowing one hour for breakfast; or, altogether, fifty-seven hours per week. Of course it is understood that, in asking for this relaxation, we are willing that the working of any such alteration should be made subject to special inspection on the part of the Government, and further, that it should only extend to the six summer months of the year, say from 1st October to 31st March.

(4.) Should it be deemed inexpedient to relax by legislation Bradshaw's Act in the direction indicated above, we would suggest that, in the case of our woollen factories, a law be introduced whereby we may have the privilege by special license, and subject to special inspection, to work two hours per day longer than the time recognized by Bradshaw's Act.

In submitting the above for your consideration, we may, in conclusion, state that, in the event of your desiring to see any of us personally during your visit to Dunedin, we shall be happy to attend, on your giving us the necessary notice of time and place.

We have, &c.,

JOHN H. MORRISON, Manager,
Mosgiel Woollen Factory Company (Limited).
ROSS AND GLENDINING,
Roslyn Woollen Mills.
McLANDRESS, HEBBURN, AND Co.,
Kaikorai Woollen Factory.

No. 143.

NOTES of a Visit by the Commission to the Mosgiel, Roslyn, and Kaikorai Woollen Factories.

ON the 17th of May the Commission visited the Mosgiel Factory, situated on the Taieri Plain, about twelve miles from Dunedin, accompanied by Mr. Morrison, manager for the Company. They found the mills in full working, and inspected the various processes in the manufacture from the raw material of woollen tweeds, rugs, shawls, blankets, flannels, hosiery, and yarns. The number of persons employed was forty, earning wages from £1 to £1 10s. per week, and working eight hours a day, in accordance with the provisions of the Regulation of Factories Act. The premises were roomy, well ventilated, warmed, and thoroughly wholesome and comfortable in every respect. The labour was of a very light kind, and especially suited to women and young persons. A large capital—amounting to £60,000—was invested in the works, and the average profit since the commencement amounted to 7 per cent. per annum, making an ample allowance for wear and tear. The Commissioners noted with satisfaction that only native coal was used at the factory—the proximity of a colliery enabling steam-coal of excellent quality to be delivered at 10s. a ton. The manager of the works represented to the Commission that the industry was in a flourishing state, and needed no artificial assistance, being able to compete successfully with the imported article so far as the trade has been at present developed. He stated that the present duty of 15 per cent. *ad valorem* was distinctly protective, and added that his industry would be independent of such protection, and would be in a more favourable position without protection, provided that the requirements of the Regulation of Factories Act were relaxed with respect to the length of working hours. He informed the Commission that weavers and other piece-workers employed in the factory would willingly work nine hours or nine hours and a half a day if they were permitted to do so, and that the extra work would not affect their health or be any hardship to them, while the extra wages would be a great consideration. The advantage of this system to the Company would be that they could keep all their machinery employed when business was brisk, instead of keeping looms idle though they had orders in hand—the spinning process not being able to keep pace with the weaving under the eight-hours system. Mr. Morrison represented this to be a very important matter—sufficiently important to make the difference between working the factory at a certain profit independently of protection, and working it precariously even with a duty of 15 per cent. He stated that if the legal hours were lengthened, he did not think the rate of wages would be lowered, but that the Company would be willing to pay the present liberal rate of wages to piece-workers for longer hours for the sake of keeping all the machinery at work. The Commission also examined the working manager at some length on this subject, but his evidence coincided very closely with that of Mr. Morrison. They elicited from him, however, an admission that if the legal hours of labour were lengthened the wages of day-workers would not be increased, as they had not been reduced when the working-day was shortened from nine hours to eight. He stated that no hardship

would be inflicted upon the workpeople by the lengthening of the legal hours, and it was not easy to prevent the law being broken or evaded by the workpeople themselves. The Commissioners selected several of the workpeople, and examined them separately as to the operation of the Factories Act and their own feeling regarding the length of hours. They one and all spoke in terms of the highest satisfaction of their circumstances in the factory, and they stated that they would have no objection to work for an hour or an hour and a half longer in the day, during a press of business, at the present rate of piece-work wages, with a corresponding increase in the case of day-workers. They did not seem to feel at all strongly on the matter one way or the other, but they were distinctly in favour of a change in the law that would admit of their earning as much as they could. Their condition appeared to be to the Commissioners an exceedingly favourable one. They found girls of sixteen earning on an average £1 7s. a week at light and wholesome work, close to their homes, and under the care of their parents, also employed in the factory. The whole establishment is highly creditable to its proprietors, and must be a source of gratification to all who are interested in local industries.

The Commission next visited the Roslyn Mill, recently erected by Messrs. Ross and Glendining, at an outlay of about £40,000, for the manufacture of blankets and flannels. These works appeared to be perfect in all their arrangements, and the comfort and well-being of the workpeople are as liberally provided for as at Mosgiel. The Commissioners found the prescribed notices under the Factories Act posted conspicuously, and all the requirements of the Act most strictly carried out, except in so far as the law may be held to be evaded by giving the workpeople a half-holiday on Saturday, and distributing the time thus lost after hours on the other days of the week. The manager of this factory made precisely similar representations to the Commission as had been made to them at Mosgiel, stating in addition that the provisions of the Act allowing boys to work only half-time interfered greatly with the business. He also dwelt, as Mr. Morrison had, on the absurdity of compelling manufacturers to close the works on certain specified days of the year, such as Boxing Day, Good Friday, &c., although these days were quite unknown to the workpeople as holidays. He pointed out that a holiday occurring on Friday practically closed the mills for two whole days, because it was not worth while to light the fires for the half-day on Saturday. The Commissioners examined several of the workpeople on the question of legal hours; but here they found them unanimous in the feeling that they already worked quite long enough, and that the law, by forbidding them to work more than eight hours a day, whether they wished it or not, afforded them a valuable protection. They spoke in the highest terms of their employers and their condition in the factory, and stated that they desired no change, even for the sake of gaining more money. One of them, an intelligent middle-aged married woman, dwelt strongly on the advantage of the eight-hours system in enabling persons in her situation to attend to the care of their homes, and at the same time to earn fair wages by factory-work. A girl of seventeen spoke in the same strain of the value to her of her leisure, and stated that, although she would work longer hours if her companions in the factory did so, yet she would greatly prefer that the hours should remain as they are.

The Commissioners then visited the Kaikorai Mill, in which some £20,000 has been invested. This mill was established about six years ago on a limited scale, and the arrangements are not nearly so perfect as at Roslyn and Mosgiel. The rooms were hot and close, and the Commissioners recognized from what they saw there that, even with the best intentions on the part of employers, the lot of persons in woollen factories might easily become a hard one. The manager of this mill repeated the representations which had been previously made to the Commissioners with respect to the length of legal hours and holidays, and added an expression of opinion that additional duties should be imposed on inferior qualities of woollen goods, in order to prevent the market being flooded, as at present, with cheap and worthless materials manufactured expressly for the colonies. The Commissioners selected an elderly woman of long experience as a factory-weaver, both in England and in New Zealand, and examined her as to the question of hours. She unhesitatingly declared in favour of the law as it stands, and expressed in emphatic terms her conviction that if the hours were lengthened the rate of wages would be lowered. She also urged that eight hours a day was enough work for anybody; and that, although she and others of her class might be tempted to work longer for the sake of earning more, it would be much better for them to be prevented by law from doing so. She stated that she felt sure that this was the feeling of the workpeople generally, and that any alteration of the law could not but act injuriously to them.

The Commissioners have to acknowledge the courtesy shown them by the mill-owners, and the facilities that were afforded them for making a perfectly fair inquiry into the operation of the Factories Act.

No. 144.

Messrs. ROSS and GLENDINING, Roslyn Woollen Mills, to Hon. Thomas Dick, M.H.R., Wellington (forwarded to Local Industries Commission).

SIB,—

Dunedin, 2nd June, 1880.

On the occasion of the recent visit of the Commission on Local Industries, we thought of suggesting to it the advisability of admitting certain yarns for weaving purposes free of Customs duty; but, as the local protectionists were at the time pressing their views on the Commission, we feared our motives would be misunderstood, and have therefore decided instead to bring the matter before you for your kind consideration. Besides the woollen fabrics at present manufactured in the colony, a much larger variety could be made, and the whole industry greatly extended, provided we had finer yarns of a special make, to use along with those spun here. The manufacture of these yarns at Home is an industry of itself, large mills being solely employed in producing them for sale to the cloth-manufacturers. The machinery required for making them is very expensive, requiring an immense demand to render the business remunerative; and it will be many years before the consumption in New Zealand is sufficient to support a single mill of the kind. The Customs duty on yarns at present is 15 per cent. *ad valorem*; and, although "weaving-yarns" are not specially mentioned, and were not contemplated when the Customs Act was framed, we have no doubt they would be subject to the same

duty if we ventured to import them; and, if so, this would amount almost to prohibition. We notice among the decisions made by the Commissioner of Customs that "coloured yarns" for heading blankets are subject to duty. The reason for this is, no doubt, that these yarns might be used for making hosiery; and we think it quite right that such yarns should be dutiable. The yarns we refer to, however, are not open to this objection. They can be used for no other purpose than weaving; and we think we can also assert that, unless admitted free, they cannot be imported into the colony at all: so that by their exemption the revenue would not suffer. We enclose a sample, and trust you will see that there is no danger of the exemption of these being made a loophole for other yarns, properly dutiable, to escape free. If you approve of our suggestion, we shall feel obliged by your seeing the Commissioner of Customs on the matter, and, if he has the power under the present tariff, getting him to place "all yarns for weaving purposes only" on the list of exemptions. If he has not the power, would you kindly bring the matter before the other members of the Government in due form and time, and, if possible, obtain the concession during this session? Apologizing for thus troubling you when your hands must be very full of important business,

We have, &c.,
ROSS AND GLENDINING.

Memorandum from the Hon. THOMAS DICK to the Chairman, Local Industries Commission. THIS seems to be a matter connected with your Commission, and I therefore take the liberty of forwarding the letter for your consideration.

THOMAS DICK.

No. 145.

Mr. W. SEED to the Hon. Thomas Dick, M.H.R. (forwarded to Local Industries Commission).

5th June, 1880.

THE accompanying sample of weaving-yarn comes under the denomination "Woollen manufactures," and is therefore liable to duty 15 per cent. *ad valorem* under the present tariff. If it be thought desirable to amend the tariff so as to admit these fine yarns duty-free, the degree of fineness should be particularly and definitely specified; otherwise it might be found that the woollen factories would import all their yarns from Home, and simply weave them up here, and even give up making the coarser yarns from which they now make tweeds and blankets, &c. Probably there is some trade name by which fine yarns are known. Messrs. Ross and Glendining could, perhaps, supply this information. Of course the admission of yarns duty-free would have the effect of reducing the receipts of duties on the imported woollens made at Home of these yarns.

W. SEED.

No. 146.

Mr. JOHN H. MORRISON, Manager of the Mosgiel Woollen Factory, to the Chairman of the Local Industries Commission.

SIR,—

Dunedin, 9th June, 1880.

I have the honor to acknowledge the receipt of your letter dated Wellington, 7th June, in which was enclosed Messrs. Ross and Glendining's letter on the subject of "weaving-yarns." As requested by you, I have brought the matter before the directors of this Company, and am instructed to reply as follows:—

1. The Company oppose the application of Messrs. Ross and Glendining, inasmuch as the exemption asked for is on an article (as per sample) which can only be used in very small quantities in the manufacture of tweeds, and the Company considers that the 15-per-cent. duty at present payable upon what would be required represents merely an infinitesimal charge on the value of the manufactured tweeds.

2. The Company are more, or quite as much, interested in the matter as Messrs. Ross and Glendining, and they see no hardship in having to pay 15 per cent. duty upon any yarns they may import. They contemplate importing these fine worsted yarns, and will make no objection to the payment of the duty.

3. The exemption of "all yarns for weaving purposes only" will make an opening for the introduction of almost any class of yarns. The Company considers that if this is granted it will mean ruination to the native woollen industry, instead of acting as a stimulus, as the making of tweeds could then be carried on by the establishment of weaving and finishing mills only, thus handicapping the present factories, who are producing entirely from the raw material.

I have, &c.,

JOHN H. MORRISON,
Manager.

No. 147.

Telegram from Mr. ISAAC WILSON, Chairman, Kaiapoi Woollen Company, to Mr. Commissioner A. J. Burns, at Wellington.

Kaiapoi, 11th June, 1880.

FINE yarn for weaving could be used to advantage if duty-free, and also cotton warps for cheap blankets; but we would not ask for either. We think a small additional duty would enable manufacturers to make all kinds of woollen goods by labour employed in New Zealand and of New Zealand wool. If weaving-yarn were free, hosiery-manufacturers would want their yarn free: this would be a great loss to us.

ISAAC WILSON,
Chairman, Kaiapoi Woollen Company.

No. 148.

Evidence of Mr. T. G. PASCOE, Clothing-manufacturer, before the Commissioners on Local Industries, at Dunedin.

Dunedin, 18th May, 1880.

I WISH, gentlemen, to point out to you that every item—all trimming goods—required for the manufacture of clothing bears a duty of 15 per cent. The remission of the duty on some of the articles we require—on some of the leading lines—would be a considerable relief to us. A few of the leading lines on which it is necessary for carrying on the manufacture of clothing that the present duty of 15 per cent. should be taken off altogether, or that it should be reduced to 5 per cent., are—(1) Italian cloths; (2) printed Silesias; (3) plain do.; (4) machine silks, thread, cotton; (5) buttons. I think I made the remark “that there is not a line used in the manufacture of clothing that is not taxed,” to-day. The above goods are easily defined; and such an alteration as I suggest would be of great assistance to the manufacturers. I have also to remark that, if taking off the duty from the above goods will interfere with the amount calculated on, or is found to touch too largely on what is required for revenue purposes, a further 5 per cent. should be added to the 15 per cent. now charged on manufactured men’s, boys’, and youths’ clothing. These views, I may add, express the views of the trade.

No. 149.

Evidence of Mr. ABSOLON SMITH, Tailor, before the Commissioners on Local Industries.

Dunedin, 18th May, 1880.

MR. ABSOLON SMITH, tailor, informed the Commission that Volunteer companies were allowed a rebate on uniform, and that they imported, instead of using the local manufacture. This prevents local tailors from tendering for Volunteer uniforms. The Volunteers would prefer ordering here if they had to pay the duty. As regards the tweed, the Government have decided that it should be scarlet for all corps. Suggests Government should call for tenders for the tweed, and supply it to the companies. Large firms could contract for the work and sub-let it, as is done in railway uniforms, shutting out all competition.

No. 150.

Evidence of Messrs. BROWN, EWING, and Co. before Mr. Commissioner A. J. Burns.

Dunedin, 26th May, 1880.

MESSRS. BROWN, EWING, AND Co. state that they are drapers in Princes Street. They employ a number of females in their warerooms, and feel aggrieved at some of the provisions of the Employment of Females Act, and are of opinion that some of its provisions press unduly upon their business.

1. That they should be allowed to employ females on Saturday afternoons, for an hour or two, in cases of extreme pressure; that the Act be amended to give power to the Inspectors to grant this permission on application. They see no objection to the payment for overtime, and that two hours be the maximum time that may be granted.

2. That the Act be amended to repeal those clauses wherein the employer is compelled to pay wages for holidays, as it appears to them to be unjust and wrong in principle.

3. That we are large buyers of colonial and importers of foreign manufactured goods; and we are of opinion that the present tariff enables the colonial manufacturer to compete successfully with the imported article; and are further of opinion that no addition should be made to the amount of the present tariff-rates on soft goods.

BROWN, EWING, AND Co.

TECHNICAL EDUCATION.

No. 151.

CANTERBURY COLLEGE SCHOOL OF AGRICULTURE.—Director, W. E. Ivey, M.R.A.C., F.C.S., F.I.C. The School of Agriculture has been established to afford students the opportunity of acquiring a thorough knowledge of the practice and science of agriculture.

The institution is situated near Lincoln, about twelve miles from the City of Christchurch. The school-buildings comprise lecture-theatre, library and museum, chemical laboratory, dining-hall, separate bedrooms for twenty resident students, lavatories, bathrooms, &c., together with quarters for the director of the school.

Students between the ages of fifteen and nineteen conforming to the regulations will be admitted to residence. The charge for each resident student is £50 per annum for board and lodging, and £9 9s. for tuition. Non-resident students can attend the lectures and receive instruction in practical farm-work by conforming to the regulations and paying the fee of £3 3s. per term or £9 9s. per annum.

Scholarships.—There are six scholarships which entitle students to free board and residence and free tuition.

The farm contains 500 acres of land of various qualities, from rich swamp pasture land to light comparatively thin soil overlying shingle. The farm buildings comprise stables, granary, cowhouses, dairy, piggeries, implement sheds, &c. The machinery and farm implements have been carefully selected with the view of saving labour, and the dairy utensils include the improvements introduced in the most recent systems of butter and cheese-making. A portion of the farm is devoted to experimental purposes to test the value of different methods of cultivation, the effect of manures on various crops, the qualities of indigenous and exotic grasses, the suitability and comparative worth of new varieties of cereals, roots, fodder and other plants.

Practical Work.—The farm* will be conducted on economic principles. The students will be required to take part in the regular daily work of the farm, to acquire a practical knowledge of ploughing and every other kind of farm work, the use of implements and machinery, the management of stock, and the making of cheese and butter. Students will also receive practical instruction in agricultural chemistry in the laboratory.

Field Work.—Land surveying and levelling will be undertaken at suitable times for practice in the use of instruments, and in measuring land, harvest, and other piece-work, and for taking levels for drainage purposes.

Lectures and instruction will be given on the following subjects:—

Agriculture.

Principles of construction and use of implements; origin and physical properties of soils; general cultivation of soils; effects and cost of cultivation by the various implements; effects of air and rain on fallowed soils; use of manures; draining.

Cultivation of and harvesting the various cereal and other crops; habits and peculiarities of the cereals; rotation of crops; cost of cultivation and value of root and fodder crops generally; laying down to grass; grasses in general; cultivation of crops occupying small areas, as dye-plants, fibre-plants, &c.; fences and fence-plants; diseases of crops.

Labour; task-work; the management of stock; farmhouses, sheep, cattle, pigs; wool; bacon-curing; dairy management.

Chemistry.

Agricultural chemistry; the constituents of the soil; their condition; the plant and its constituents; the food of plants, whence derived, in what condition it must exist for absorption and assimilation by the plant; fertile and infertile soils; chemistry of vegetable products; composition of cereal grain, of hay, roots, and other farm produce; composition of flesh, of fat; chemistry of the growth and fattening of animals; manufacture of starch, of sugar, of vinegar, &c.; the chemistry of milk, butter, and cheese; of food; of manures, &c.

Biology.

Physiological Botany.—Food of plants; absorption; diffusion of fluids in plants; elaboration of the food; reproduction of plants; influence of external agents on plants; distribution of plants; diseases of plants.

Entomology.—Principal divisions of the animal kingdom; structure of insects; character of the orders and more important families of insects; life histories of injurious and beneficial insects; proposed remedies against the injurious effects of insects.

Geology and Physical Geography.—*Veterinary Medicine and Surgery.*—*Mathematics, Surveying, and Book-keeping*

Entrance Examination.

Candidates for admission as resident students to the School of Agriculture are required to pass a preliminary examination in the Fifth Standard of Education (see Regulation under Education Act, 1877), or to produce a certificate from the Board of Education that they have already passed such standard. Candidates must be between the ages of fifteen and nineteen years.

The examination will be held on Tuesday, the 1st June next, at Auckland, Napier, Wellington, Nelson, Christchurch, and Dunedin. As there is accommodation for only fourteen resident students (in addition to those who may obtain scholarships), the fourteen candidates who pass a successful examination will be received according to their places on the examination list.

Tuition fees, £9 9s. per annum. Board and lodging, £50 per annum.

Candidates must forward their names to the Registrar, Canterbury College, on or before Saturday, the 8th May next.

School of Agriculture Scholarships.

An examination of candidates desirous of competing for the above scholarships will be held on Tuesday, the 1st June next, at Auckland, Napier, Wellington, Nelson, Christchurch, and Dunedin.

The scholarships now offered for competition are five in number—one tenable for three years, two for two years, and two for one year—are open to candidates from all parts of New Zealand, and entitle the holders to board, lodging, and instruction at the School of Agriculture, Lincoln. Candidates must be between the ages of fifteen and nineteen.*

Candidates for the scholarships shall be examined in the subjects of the Sixth Standard of Education (see Regulations under Education Act, 1877).

Conditional on the papers being satisfactory to the examiners, the three years' scholarships will be awarded to the candidate who stands first on the result list, those standing second and third securing the two years' scholarships, the one-year scholarships falling to the candidates occupying the fourth and fifth places.

All scholarships will be tenable only during good behaviour and strict observance of such regulations as may from time to time be made, and on the successful passing of such periodical examinations at the school as may be determined upon by the Board of Governors.

Candidates must forward their names to the Registrar, Canterbury College, on or before Saturday, the 8th May next.

Any further information required may be obtained on application to the Registrar, Canterbury College.

F. G. STEDMAN,
Registrar.

* A scholarship for three years was awarded at the examination held in February. Five scholarships were awarded at the examination held in June.

MISCELLANEOUS.

GLOVE MANUFACTURE.

No. 152.

Mr. W. DANIEL to the Chairman of the Commission on Local Industry.

SIR,—

Dipton, 5th April, 1880.

I am in receipt of your circular requesting me to send any suggestions I may possess regarding the adaptability of this district to manufacturing or other industries. I have much pleasure in complying with your request, inasmuch as it gives me an opportunity of venting an idea that I have long entertained regarding the establishment of an industry hitherto neglected, as far as I am aware, in all the Australasian Colonies. I refer to the glove-manufacture. This is an industry which I followed for many years in the Old Country, and that in one of the principal seats of the trade, I mean in the West of England. From a lengthened and varied experience in these colonies, I am bound to say that I have nowhere observed so many natural advantages and special facilities for the development of this industry as exist in the Dipton District. In the first place, there is the Spanish merino sheep, for the rearing of which the colony as a whole is peculiarly adapted. The skins of this animal are largely exported from Bilboa and the Spanish ports to the West of England glove factories, where an article is turned out that is gradually superseding the best French kid. One important feature of the pre-eminence of the West of England in glove-making is found in the lime of a peculiar quality which exists there, and is largely used in dressing the skins. A necessary operation is the construction of limestone vats, wherein the curing process is performed on the skins. In this respect we are equally fortunate in this district. Large beds of limestone, as is well known, exist at Castle Rock, in this neighbourhood, and from the observation of competent persons it has been decided to be of a quality identical with the famous Howhill stone of Somerset, referred to above. The Howhill stone of Somerset, besides being used in leather-dressing, is also the favourite building material throughout the West and South of England. In this connection I need hardly call the attention of your Commissioners to the fact that the Castle Rock freestone of this district gained the first prize for building-stone at the Sydney International Exhibition. It is also unnecessary to remind you that a good building-stone, easily quarried, and involving but little cost in transportation, is at present a great desideratum in Invercargill and other Otago towns. It is also almost certain that it would form an immediate commodity for export to Victoria, where there is also a scarcity of building material possessing the above qualities. These wants are all but met in the Castle Rock stone, the only drawback being the want of a road to the quarry. The situation of the latter has been repeatedly brought under the notice of the public; and, in conclusion, I beg to say that I will be most happy to supply your Commission with any additional information you may desire.

I have, &c.,

WILLIAM DANIEL.

CHROME ORE.

No. 153.

Mr. T. W. HACKET to Mr. Commissioner Burns.

SIR,—

Nelson, 6th April, 1880.

I had the honor of verbally pointing out to you the importance of the production of chrome ore as a native industry, which in the present advanced state of manufactures might become of very great importance. In respect to this I beg to give you the following particulars:—

Some twenty-three years ago large deposits of this ore were discovered on the property of the Dun Mountain Company, and under my direction some 130 tons of this ore were packed down and shipped to England. This ore realized £10 10s. per ton. So elated were the shareholders with the sale, that a tramway sixteen miles in length was constructed, by which some 5,000 tons of this mineral were brought down to the Port. At the same time some other mines were started which also produced several hundred tons. This unusually large quantity of chrome ore, in addition to the ordinary supply, greatly reduced the market value, especially as a change in the fashions as regards colours occurred about the same time, so that at last the proceeds of the ore would scarcely pay freight. The mines were therefore all abandoned.

At the present time the market is in a very different state; several new manufactories of the bichromate have been established, which have broken up the monopoly enjoyed by Messrs. J. and G. White, and at the same time fresh demands for it have arisen, so that its manufacture has assumed enormous dimensions. The price also of the bichromate (as shown in the price-currents) has risen during the last six months from 5d. to 7d. per pound, which of course represents a still greater rise in the value of our raw material. To the present no advantage has been taken of this advance, although we have in this vicinity immense deposits of the chrome ore.

The reason of its not being worked is the expense of transport, the reefs being all situate in a broken country away from ordinary roads. The average distance of the chrome reefs from the existing roads is five miles. These would be rather expensive, but, independently of the expense of the road to the enterprising miner, the road made by him would open up other reefs owned by other parties, who would make use of the road to his obvious loss, and otherwise compete with him without contributing to the expense.

As regards the price at which the ore could be shipped, this would entirely depend on the goodness of the road. The distance from the reef to the railway varies from ten to fifteen miles, and were good roads made, the ore, from its quantity and quality, could easily compete with that from any other country, even at the lowest state of the market.

When the chrome reefs are being worked it is highly probable that a further industry will be started in the conversion of the chrome ore into the bichromate of potash, chromate of lime, and other products of chrome used in the arts and manufactures, for which we have all the necessary raw material in the district.

I shall be happy to give you further information if required.

I have, &c.,
T. W. HACKET.

CORK.

No. 154.

Mr. E. DUTTON to the Chamber of Commerce, Auckland.

GENTLEMEN,—

Upper Queen Street, Auckland, 7th April, 1880.

In reply to the invitation *re* local industries, I have much pleasure, on behalf of the cork-cutting trade, in suggesting that the tariff be rearranged so as to read 25 per cent. on all corks and articles manufactured out of the corkwood or bark, the latter to come, as at present, free. If this was carried out, I believe it would facilitate the trade and do a great deal of good to the colony.

I have, &c.,
E. DUTTON.

No. 155.

Mr. E. DUTTON to Mr. Thomas Peacock, Mayor of Auckland.

SIR,—

Queen Street, Auckland, 17th April, 1880.

In reply to invitation *re* local manufactures, I would suggest, on behalf of the cork-cutting trade, for the further development of it, that the tariff should be rearranged so as to read 25 per cent. on corks and all articles manufactured out of the raw material imported into the colony, the raw material to come in, as at present, free. If this was carried into effect, I believe it would be the means of spreading one of the most important industries in the colony. Secondly, that the Government should plant on some of the suitable waste lands of the colony cork trees, as I believe they thrive here very well. At a future time it would bring a large revenue to the colony. I shall be happy to give any further information required.

I have, &c.,
E. DUTTON.

SAUCE-MAKING.

No. 156.

Mr. H. L. KOEFOED to the Chairman of the Local Industries Commission.

SIR,—

Grahamstown, 13th April, 1880.

I consume a considerable quantity of the following items in sauce-manufacturing—namely, sugar, vinegar, and various kinds of spices, and by reducing the duty a trifle on the above-mentioned articles my industry would pay me handsomely, whereas now it is scarcely doing so. I may also mention that I have this year imported glass-bottles from England to the value of £300, and I shall most likely double that amount next year, providing there is no duty put on the same.

I have, &c.,
H. L. KOEFOED.

No. 157.

Evidence of Mr. H. L. KOEFOED before Mr. Commissioner A. J. Burns, at Grahamstown, 13th May, 1880.

MY name is *Harrold Lucien Koefoed*. I am a sauce-manufacturer, and have been twenty-six years in this colony. I desire that no duty be imposed on glass-bottles, as such duty would materially injure my business, which is at present very successfully established. I also desire that the duty on imported sauces be not remitted.

H. L. KOEFOED.

No. 158.

Evidence of Mr. ALBERT BEETHAM before Messrs. Commissioners Tinne and Burns, at Auckland, 3rd May, 1880.

MY name is *Albert Beetham*, trading under the name of Beetham and Co., tomato sauce-manufacturers. I intend opening up the pickle-manufacture if facilities can be granted. I have induced a man to come here, who understands the getting up of the pickles, as manager of my factory. I have secured sixty-five acres of land in order to try this industry, but its success or otherwise depends entirely upon the manner the Government manage the tariff. For the purpose of the tomato-sauce industry I have been importing £400 worth of bottles annually. When the pickle industry is added I shall be importing at least three times that quantity. Bottles are at present such a heavy item in this industry that if a tax was imposed on them it would destroy the tomato-sauce industry, and prevent the starting of the pickle industry. For the last four years the price of bottles has varied from 19s. to 13s. per gross in England. Bottles made on the same sample were tendered for two years ago by a manufacturer in Melbourne at 25s. for half-pints and 30s. for pints, and this year their agents asserted they could not reduce this price. Mr. Chambers, of Messrs. Porter and Co., was guaranteed by me a market for £300 worth of bottles if he could produce them at a cheaper rate than I could have imported them; but after carefully considering the matter he declined on the ground that it would not pay. The reason asserted for this was that the experts in glass-manufacture in England are receiving such large salaries and wages that they will not emigrate. For these reasons I beg to recommend to the Commissioners that no duty be placed upon bottles. The Government would materially assist the tomato-sauce and pickle industries if they imposed a little more duty on pickles, as 9d. per dozen pints is really no duty at all. I should say that 1s. 3d. per dozen would be a fair duty on these goods, and

would not be prohibitory, but would tend to send the trade to the manufacturer instead of the importer. If the same duty—namely, 1s. 3d.—were placed upon preserved fruits it would induce me to start the preserved-fruit industry. In my opinion this small addition of duty would not increase the price of the article to the consumer, as were the whole trade coming to the manufacturer instead of to the importer, labour-saving machinery would be introduced into the works, thus keeping down the price and giving equal profit to the manufacturer.

ALBERT BEETHAM.

PAINTS AND VARNISH.

No. 159.

Mr. E. R. EDWARDS to the Joint Committee of the Thames County and Borough Councils, forwarded to the Chairman of the Commission on "Local Industries.

GENTLEMEN,—

Thames, 13th April, 1880.

I have the honor to state that I have, for the past six months, been developing a new industry—the manufacture of pigments; and I find from experience that this province, but more especially the Thames District, is able to produce the most useful paints of commerce, with unlimited quantities of the crude requisites—namely, manganese, copper, hematite, ochres, silicates, &c.; and would be able to supply the necessary demands of the colony. But to foster the industry, so as to be able to compete with the English and American manufactures, requires a protective tariff—more particularly suggested as the American manufacturers are swamping the market with very inferior and trashy paints, to the detriment of the Home and colonial producer. The suggestion *re* varnish is to strengthen the hands of the varnish manufacturers in the colony, as the probability is that, with the abundance of kauri gum in the district, a higher protective duty might induce parties to embark in this branch here. *Re* whiting and chalk, quantities of this of superior quality are found in different parts of the province. With the increase of tariff valuable industries would be fostered, and new ones developed.

Suggested Tariff.—Paints, description wet or dry, 20 per cent.; polishing paste and powders, 25 per cent.; whiting and chalk (present, 1s. per hundredweight), 5s. per hundredweight; varnishes (present, 1s. per gallon), 2s. per gallon.

I have, &c.,

E. R. EDWARDS.

No. 160.

Evidence of Mr. EDWARD ROBERT EDWARDS before Mr. Commissioner Burns, at Grahamstown, 13th May, 1880.

MY name is *Edward Robert Edwards*. I have been nineteen years in the colony. I am a manufacturer of pigments. I hand you a list of pigments, with samples, that I am now in a position to supply the market of this colony with. These pigments are manufactured from earths and ores procured in the Provincial District of Auckland. I can supply a very large number of these pigments at prices below the prices of the imported article; but when these pigments require to be put into tins containing from 1 lb. to 2 lb., then I cannot compete with the imported article. If a duty of 15 per cent. was imposed upon dry pigments, the consumer would not pay any more for the paints; it would simply shift the importer's profit to the manufacturer. The number of earths and ores suitable for pigments that can be procured in this country is astonishing: a very little fostering of this industry would soon make it a large business. These remarks equally apply to paste and polishing-powders. These can be procured in this country, but I am in some difficulty as regards the tinning of them.

EDWARD ROBERT EDWARDS.

Particulars of Samples shown by E. R. Edwards, Thames Hematite Paint-works.

No. of Sample, and Locality where Discovered.	Remarks.
1. Twenty miles north of Thames ...	Dark-brown hematite.*
2. Thames ...	Dark-red, fine.*
3. Thames ...	Red oxide, as supplied to the trade.*
4. Thames ...	Brown " " " *
5. Thames ...	Oak " " " *
6. Rotorua ...	Beautiful colour, equal to the costly Indian red.
7. Manukau ...	A useful mixing colour.
8. Thames ...	" " " (bole).
9. Thames ...	Mixture.
10. Thames ...	" (useful for painting ships).
11. Thames ...	Stone, good body silica.
12. Rotorua ...	Beautiful colour for printing, or otherwise.
13. Rotorua ...	" " " (bole).
14. Thames ...	" " " (bole).
15. Rotorua ...	Slate, beautiful colour for printing, or otherwise.
16. Thames ...	Stone, good body silica.
17. Thames ...	White, almost pure silica.
18. Thames ...	Colour for printing, or otherwise (and timber).
19. Thames ...	" " " (bole).
20. Thames ...	Good dark red (iron).

* All made from iron.

No. 161.

Messrs. ATKINSON and Co. to the Mayor of Auckland, forwarded to Commissioners on Local Industries.

SIR,—

Newmarket, 17th April, 1880.

We see by advertisement that you request all those interested in local industries to send any information as to the best means of fostering such industries. We beg to state that we have, after much time and money spent, succeeded in utilizing the waste kauri-gum dust, of which there are thousands of tons, and making a very superior paint-oil from it, and also all kinds of varnishes, which are admitted by the public to be equal to the imported varnishes, and cheaper than the English, but not cheaper than the American, which are sent into this market and sold in the auction-rooms in large quantities. It would benefit us and the province at large if there was a heavier duty imposed on imported varnishes; because there is a very large trade done both in varnish and paint-oil, and there is very little reason in sending the raw material away to another country to be sent back to us in its manufactured state, when we are in such pressing need of employment for the growing youth of the colony. If the business men of the colony, and especially the Government, would assist these growing industries, by giving them the preference, when found to be of equal merit, instead of being so anxious to run in the old groove and deal with the importers, many industries that are now languishing would be bright and prosperous, and a new day would be dawning for young New Zealand. Trusting you will excuse the length of this epistle,

We have, &c.,

ATKINSON AND Co.

CONFECTIONERY.

No. 162.

Mr. JOSEPH STACEY to the Royal Commission on Local Industries.

GENTLEMEN,—

Auckland, 19th April, 1880.

I beg to draw your attention to the large amount of confectionery imported—namely, several tons per month—which could be manufactured locally. If the manufacturers were protected by an additional 1d. per pound duty, making 3d. per pound instead of 2d., it would be an inducement to local manufacturers to compete with English goods.

The Government would not lose any revenue, as local manufacturers would use more sugar, for which duty is paid. The extra 1d. per pound on confectionery (making it 3d. per pound duty) would be equivalent to the bulk of confectionery at 2d.

I have, &c.,

JOSEPH STACEY.

No. 163.

Mr. E. WATERS to the Chairman of the Royal Commission on Local Industries.

SIR,—

Auckland, 13th April, 1880.

I take the liberty of addressing you in order to lay before you a few facts in connection with the confectionery industry in this part of the colony, and to point out a few of the drawbacks which operate to retard its development. Regarding my own business, I produce for home consumption nearly five thousand pounds' worth of sweetmeats, such as lozenges, comfits, &c., every year; and my goods are acknowledged by competent analysts and connoisseurs to be superior to the English makes which flood the New Zealand markets. Notwithstanding the pronounced superiority of my goods, and the fact that I produce them at a cost which almost equals that at which the English makes can be sold for here, merchants use every effort—whether through a senseless prejudice against local home industries or not I do not know—to shut out my confections from the small traders. I employ seven hands in my factory at good wages, and would probably be in a position to employ another ten if reasonable assistance were given by the tariff to my industry. I believe that an addition of 2d. per pound to the duty on lozenges, comfits, jujubes, &c., would not inflict any hardships upon any section of the colonists, while it would stimulate an industry which would employ a large number of workmen, the wages of whom are now sent out of the colony, to its consequent impoverishment. I believe if some relief could be given in the way of admitting a portion of the raw material used in my business, such as gum arabic and almonds, duty free, I am convinced that the loss to the revenue would be comparatively trifling. I hope that you will have the goodness to bring the matter under the notice of the Commission, and that the latter will graciously consider in a favourable spirit the suggestions I have put forward.

I have, &c.,

E. WATERS.

No. 164.

Evidence of EDWARD WATERS, Confectioner, taken before Messrs. Commissioners Tinne and Burns.

Auckland, 30th April, 1880.

MY name is *Edward Waters*. I am a confectioner in Queen Street, Auckland, and have resided in Auckland about eighteen years. Referring to my request contained in my letter for an increase of duty, I am of opinion that the consumer would not pay any higher price for the goods, as there are sufficient manufacturers to prevent monopoly. It would simply transfer the trade from the importer to the colonial manufacturer; the consumer would eventually purchase the goods at a cheaper rate. It would materially assist the development of this industry if a drawback on sugar was allowed to the manufacturer. I produce samples of goods manufactured by Keiler, of Dundee, Paul Bros., of Melbourne, and my own, for comparison. If gum-arabic was admitted free for manufacturing purposes it would materially assist this industry. I pay from 40s. to 70s. per week for my labour.

EDWARD WATERS.

Referring to Mr. Waters's samples, we unhesitatingly state that his goods are infinitely superior in purity and workmanship and appearance to either the British or Australian goods produced.

A. J. BURNS,

THEODORE F. S. TINNE,

Commissioners.

No. 165.

Mr. E. WATERS to Mr. Commissioner Burns.

SIR,—

Auckland, 17th May, 1880.

To further exemplify the disadvantages under which I labour in competing with the English confections imported here, I may mention the practice of allowing to merchants a drawback of 2d. per pound on English lozenges, &c., exported to the Islands from New Zealand. A glaring instance has just occurred wherein an Auckland merchant obtained the above drawback on a large consignment. I really hope that you will see from these facts how heavily weighted the confectionery industry is, and that next session its interests will not be entirely forgotten in the recommendations of the Royal Commission.

I have, &c.,

E. WATERS.

MARBLE.

No. 166.

Mr. JOSEPH BENNETT to the Chairman of the Local Industries Commission.

SIR,—

Auckland, 19th April, 1880.

Referring to a circular which I have had the honor of receiving from you regarding the local industries in the District of Kamo, Whangarei, and requesting suggestions that may occur to me for establishing new industries, I have much pleasure in informing you that there is at Kamo a very extensive quarry of merchantable marble, the proprietors of which are prepared to erect the necessary machinery for cutting and manufacturing it into slabs, &c., and to connect the quarry with the railway now in course of construction, if the Government will grant the proprietors a subsidy of £1,000. Samples and reports will be forwarded to you if you are likely to entertain the foregoing proposal.

I have, &c.,

JOS. BENNETT.

TWINE FOR NETS AND TARPAULINS.

No. 167.

Mr. A. B. DONALD to Mr. Commissioner Tinne.

SIR,—

Auckland, 22nd April, 1880.

I have the honor to call your attention to two points in the existing tariff of a very anomalous nature: The first is the fact that fishing-nets manufactured are admitted free, while the netting twine used in their manufacture is subject to *ad valorem* duty of 15 per cent. Fishermen, when the weather is too rough to admit of that occupation, endeavour to fill up the time by making fishing-nets (their families also usually occupy themselves in this way), and, as their occupation is a very precarious one, I think it would be an act of justice to them to remove the duty from the twine and put it on the nets. I may further say that the present arrangements allow Sydney to get the advantage, as I noticed in the manifest of one of the steamers latest from thence two or three bales of fishing-nets. The other point is exactly similar—namely, that tarpaulins are admitted free, while the twine used in the manufacture is subject to *ad valorem* duty of 15 per cent. I am sure that if the twine used by sailmakers—namely, seaming and roping twine—were admitted free, and the duty imposed on the tarpaulins, a large business could be done in this class of goods. All articles like this are peculiarly suitable for manufacture in the colonies. As no skilled labour is required, boys can be used for this sort of work. I may further say that if the course I have pointed out were followed, not a tarpaulin would be used but what was made in New Zealand, and the price would not be raised one iota. The articles I have recommended above to be admitted free of duty—namely, netting, seaming and roping twine—cannot at present be manufactured in the colonies, and are not likely to be for many years to come.

I have, &c.,

A. B. DONALD.

No. 168.

Evidence of Mr. A. B. DONALD before Messrs. Commissioners Tinne and Burns, at Auckland, 1st May, 1880.

My name is *Alexander Bell Donald*. I am a ship-chandler in Queen Street, Auckland. I have no hesitation in saying that if the twine was admitted free, all the fishing-nets used in Auckland would be manufactured by fishermen at times when they cannot catch fish. At present the twine is charged duty on and the fishing-nets free, rendering it impossible for these men to compete with the imported article. It would be a further stimulant to the manufacture of nets if imported nets were charged duty on, and the price would not be raised to the consumer. Regarding tarpaulins, a firm in Auckland had a consignment of tarpaulins from Arbroath; I was asked to purchase these tarpaulins. After stating the price required I called their attention to my price, marked in plain figures, for the same class of goods, when it was found by comparison that my prices were lower than the price of the imported article. After finding this out, it became necessary to sacrifice the imported tarpaulins at prices very much lower, which it was stated would not pay the consignor; yet this firm still continues to receive consignments of these goods notwithstanding the losses incurred on former consignments. I offered to supply tarpaulins to one of our largest importers at prices below what could be realized from the imported article, yet my offer was refused. I am quite prepared to do this work now on equally good terms. If a duty was placed upon the imported article, in my opinion it would have the tendency to shift the trade from the importer to the manufacturer, without the consumer paying any more for the article in question. I will send a letter to the Commission regarding the Island trade, to be attached to this evidence.

A. B. DONALD.

HARVEST-BINDING TWINE.

No. 169.

Evidence of Messrs. MASON and STRUTHERS before the Commissioners on Local Industries, at Christchurch, 23rd April, 1880.

WE should like to see the duty imposed if the local men could do the work; but it is an impossibility for them to supply any large quantity by next season. We expect to import seventy-five tons of twine, and it will be a great hardship to the farmers to have to pay $16\frac{1}{2}$ per cent. duty. If the local manufacturers could supply the twine we would give them an order immediately for all that we want, but we know that they cannot possibly do so. We have seen all the makers in Canterbury, and there is only one, Mr. Seed, of Rangiora, whose product is suited for our purposes. We have sent flax to America to have it worked up by machinery there, with the intention of importing the machinery and supplying it to Mr. Seed; but that cannot be done this year, and it is about this year that we wish particularly to speak. If the machinery succeeds in making the twine without any duty, it will compete successfully with the imported twine. The machinery cannot be in working here until next January, and, in the meantime, any duty that is levied on the twine will fall entirely on the farmers. It would handicap the string-binder against the wire-binder, because the wire is admitted free. The great advantage of the string-binder is that it will utilize the native flax.

Mr. Stevens inquired whether there was any information as to the manufacture of reaping-and-binding machines in the colony.

Mr. Mason said he knew but little, except what he had heard. He believed that efforts to make these machines had been very unsuccessful. A Deering string-binder is worth £75 here, and other kinds are sold for what they will fetch, according to the estimation in which they are held for their suitability.

Mr. Bain: Is there no immediate prospect of these reapers-and-binders being made in the colony?

Mr. Struthers: No, I think not. After Messrs. Reid and Gray's unsuccessful efforts, it is not likely that any one else will attempt it for some time to come. That firm could make nothing of it, and I think they lost money over it. Their machine would not work satisfactorily. The binder went principally wrong.

Mr. Mason: We estimate that we should not be able to sell the imported American twine at less than 1s. 2d. to 1s. 3d. per pound, 800 feet to the pound; the colonial twine runs about 600 feet to the pound. The maker said he lost money selling it at 1s. per pound, but he estimates that if he had the machinery he could supply it at 7d.; but that is problematical. He is patenting a process for cleaning the flax. He does not make paper-pulp. The sisal-hemp twine used on the Johnson binder runs 400 feet to the pound. The twine that we use is half the weight of wire, so that 1 lb. of twine will go as far as 2 lb. of wire. The gauge of the various twines is very much the same.

KAURI GUM.

No. 170.

Evidence of Mr. JAMES HARDY MARSHALL before Messrs. Commissioners Tinne and Burns, at Kawakawa, 5th May, 1880.

MY name is *James Hardy Marshall*. I have resided eleven years at Kawakawa. I have been engaged in the kauri-gum trade six years here. I send about eight to ten tons per month through my hands. There are from 120 to 140 hands employed at this industry—these are all white men; but occasionally there are, I should say, about a hundred Natives employed gathering gum. The gum field in this district is about ten miles long by three miles wide. Very little of this land is fitted for agriculture; but I believe it will some day pay well to plant trees of various kinds on this country. The men are paid by results. I do not think they average per day 5s. wages, although I have known instances of good men earning from £4 to £5 per week. There are so many different kinds of gum in this field that I am paying from 24s. to 50s. per hundredweight to the workmen employed in the field. This is the amount paid on the field. It costs 6s. per hundredweight to bring the gum to Kawakawa on pack-horses, then freight and charge besides, to land it in Auckland. I pay no royalty to Government for the use of this field. If an excise-tax was imposed on gum, the tax would have to be paid by the producer. It seems to me right that Government should receive some revenue from these fields; but I am not at present prepared to say in what shape or from what source a revenue should be derived.

JAS. H. MARSHALL.

BLOCKS, ETC.

No. 171.

Evidence of Mr. BENJAMIN BLAKEY before Messrs. Commissioners Tinne and Burns, at Auckland 8th May, 1880.

MY name is *Benjamin Blakey*. I am a block, mast, and pump-maker, in Albert Street, Auckland. I have been twenty-four years in Auckland. I wish to complain about importing blocks from England and America, which are allowed to come into the colony free from Customs duties, whilst galvanized sheaves are charged 15 per cent. under the head of ironmongery, whilst the same galvanized sheaves pay no duty when fixed in the blocks. I think, in justice to my industry, the blocks ought to be charged duty on and the sheaves admitted free. The shipowners derive no benefit from the free importation of blocks, as the importer gets the profit; and I can supply as good blocks to the shipowner at a cheaper rate than can be imported. There are block-makers owning steam machinery in

Auckland, who have plant enough to supply blocks for all the requirements of the whole colony. We have timber grown in the colony called "mangian," which we use for shells of blocks; it is equal in strength and durability, and very much lighter than elm; but we have to use iron and lignum-vitæ for sheaves, as we have as yet found no timber suitable for sheaves in the colony. B. BLAKEY.

SULPHUR WORKS.

No. 172.

Evidence of Mr. J. A. WILSON before the Commissioners on Local Industries, at Auckland, 10th May, 1880.

My name is *J. A. Wilson*. I am the owner of White Island. I have been manufacturing sulphur for about two years. I have a large amount of plant, some of which has answered very well, some has not. The sulphur that we are manufacturing at present is for the purpose of sheep-dip. We have now a large stock on hand for sale; but we find that the industry has to struggle against the prejudice that exists against any colonial-made article, although the quality is equal to the imported article. In this struggle we are assisted by the small duty of 1s. per hundredweight, and we beg that this duty may not be removed. We do not request that the duty be increased, as we think we can struggle through without any increase of duty. This request applies to all kinds of sulphur that may be in the market, including sulphur for sulphuric-acid manufacture. An attempt is about to be made to get the duty removed from sulphur imported for sulphuric-acid manufacture—*i.e.*, sicilicain sulphur. Now, I object to this, because sicilicain sulphur is a manufactured sulphur, being sublimed from low ores brought up to a high standard—and this is the very thing that we have to accomplish to compete with them; hence I think that the duty ought not to be removed. This industry has so far grown up under the protection of a duty imposed on the imported article; and when this industry is fairly established I have no objection to the removal of the duty. Regarding sulphuric-acid manufacture, I would recommend to the Commission that a duty should be imposed upon the imported article, to stand for not less than three years—I should say 15 per cent. duty, as is imposed upon certain other chemicals. The effect of such a duty would be that sulphuric acid would in a very short time be manufactured in the colony. We have already been applied to to supply sulphur to such a manufacturing company, and negotiations are in progress to that end. We can supply the sulphur, and the consumer will not pay any more on account of the duty being imposed; but we simply use the duty as a lever to foster our industry. We need not expatiate upon the advantages the colony would obtain from this industry: it must be evident to the Commission. We therefore hope every effort will be used to foster it. The reason I appear is because my son who manages the work is not in Auckland at present. J. A. WILSON.

FLAX MANUFACTURE.

No. 173.

Evidence of Mr. ALFRED OLDHAM before Mr. Commissioner Tinne.

Orakei Road, Remuera, 12th May, 1880.

My name is *Alfred Oldham*. I have been in New Zealand for twenty-two years; of that time I have been about six years engaged in the various industries connected with the manufacture of *Phormium tenax*—flax-dressing, scutching, baling, spinning, carding and weaving, twine-making and rope-making. For the last two years I have been engaged in weaving floor-matting from *Phormium-tenax* fibre, and can make an article which has been amply proved to be more durable than cocoa-matting, and which I can supply to the retail sellers at a price below what they can obtain it from the importers. But if I have to supply the importers, allowing them the same profits as they now get from the imported article, I can hardly pay wages. If a duty were imposed to such an extent as would cause the present wholesale dealer (importer) to transfer the trade to me, the article I would make would not cost any more to the consumer; and the retail dealer or shopkeeper would derive as much or more profit from it than he is now allowed by the importer. I have seen five-quarter matting in a passage in the Supreme Court in Auckland, which cost the Government, through the importer's hands, 3s. 9d. a yard. I supply *phormium* matting, made in Auckland, the same width and of much better quality, for 2s. 11d. a yard: thus there is a clear loss to the Government of 10d. a yard, which they pay to the importers; while my industry is starved almost out of existence. On the average of the various widths of matting—that is, taking broad and narrow together—the difference in cost is about 6d. a yard against the consumer if he buys matting imported from abroad. Matting made of *phormium* has been thoroughly tested by the Railway Department, and has been pronounced superior to the imported coir. I have applied to the railway authorities to allow me to contract for the supply of all they require, whereby the Government would be saved about 6d. a yard on all the matting used; but I am told that all the store contracts are let to one man for a particular class of goods (in which matting is included), and he is an importer. Although my factory is now small, it is large enough to supply far more than is used in Auckland; and if my trade were increased by the trade now going to the importers coming to me instead, it would enable me not only to make the article at a cheaper rate in the long run (by the adoption of more machinery and the division of labour), but in time I should be able to make an export of it. The fibre prepared for my special use is of a different finish to that required for rope-making; and the effect of a thorough establishment of my trade would be to steady the flax-dressing industry, and enable the flaxdresser to get better profit by being able to sort his fibre.

ALFRED OLDHAM,
Onehunga.

LEAD ORE.

No. 174.

Evidence of Mr. JOSEPH C. WILLIAMS before Mr. Commissioner Burns, at Grahamstown,
13th May, 1880.

My name is *Joseph C. Williams*. I have been about seventeen years in New Zealand. I have discovered a vein of lead ore in the Auckland Provincial District. Sixty-eight bags of this ore were sent to London. I hand in a copy of the analysis. What I should like is that the Government Analyst should give an idea of the cost of separating these various ores per ton. We would forward to Wellington, as samples, any quantity of ore that might be required. Before a company could be formed to work this ore it would be necessary to procure a lease for a long term of years, other than a gold-mining lease. I hope the Commission will bring this under the notice of the Government, as there are many minerals other than gold that could be profitably worked if the law was altered. The ground referred to is within the limits of a proclaimed gold field.

JOSEPH CORNWALL WILLIAMS.

Certificate of Analysis.

Messrs. John B. Watt and Co.

London, 4th June, 1879.

WE have carefully analyzed the sample mineral, marked as under, and find the following to be the proportion in every 100 parts (mark of sample, "68 bags, ex 'Garonne'.")—Lead, 17·96 per cent.; zinc, 15·70; iron, 4·18; copper, 1·60; sulphur, 14·20; silica, 42·22; alumina, 2·68; magnesia, traces; manganese, traces; gold, silver, oxygen, and loss, 0·86; moisture, 0·60: total, 100. Gold, 1·150 oz.; silver, 15·15 oz. per ton of 2,240 lb.

JOHNSON, MATTHEY AND Co.,
Assayers and Molters to the Bank of England,
Her Majesty's Mint, &c.

No. 175.

BOTTLE MANUFACTURE.

Mr. J. B. BRADSHAW to the Members of the Royal Commission on Local Industries.

GENTLEMEN,—

Temple Chambers, 99, Princes Street, Dunedin, 18th May, 1880.

As you have invited all to approach you that have anything to say in reference to local industries, I venture to present to you the views of a constituent of mine who takes much interest in these matters. I am also very much concerned in these matters, for my future prospects depend very much upon the success of the profitable development of our natural products.

My constituent is very anxious to start a new and profitable industry, provided a fair amount of encouragement is given to it by the State: the industry is the manufacture of bottles of every description on a large scale. The material for the making of bottles is very abundant, and easily obtainable: it is in many respects of no utility, it lies waste. Now the manufacture of bottles will cause the sands which now lie as waste material to become of utility and of considerable value to the community by employing a number of persons who are now out of work, and keeping in the colony large sums of money that are sent away for the payment of imported bottles. What I wish for my constituent is to secure the market for him.

For your favourable consideration of this venture I must show you the disadvantage a producer has to contend with. For example, bottles can be imported at 1s. per dozen; my constituent cannot manufacture bottles of the like quality for less than 1s. 6d. per dozen. It is therefore evident that this important industry would have a short life under such unfavourable conditions. Now, what my constituent suggests for favourable consideration is—

1. That the State levy a duty of 7d. per dozen on the imported article, in order that the projected new industry may grow and prosper. If no duty be levied the sands must remain of comparative little value, and many willing hands must remain out of work. If this mode of encouraging a valuable industry is objectionable, the State might—

2. Levy a tax, say, an amount equal to 7d. from the public for every dozen of bottles manufactured, and give the tax as a bonus to my constituent.

I must confess my predilection for the second mode of encouragement. "It appears to me more just, more economical, and more honourable: more just, because if society desires to give largesses to some of its numbers all should contribute; more economical, because it would save much expense in collecting, and get us rid of many restrictions; more honourable, because the public would then see clearly the nature of the operation and act accordingly."

I have, &c.,

J. B. BRADSHAW.

P.S.—If I have not been explicit enough I would be most happy and willing to call on you and more fully give you my constituent's views.—J. B. B.

ROPE-MAKING.

No. 176.

Evidence of Mr. DE BEER before the Commissioners on Local Industries, at Dunedin,
18th May, 1880.

I AM the agent of the South Dunedin Ropeworks, of which Mr. Donaghy is the proprietor. It is a branch of an establishment at Geelong. It was established about two years since. There is a capital invested in it—in lands, buildings, and machinery—of about £7,000. The great drawback of the business is the competition with imports from the sister colonies, even with the works of the same pro-

prietor at Geelong. In consequence of this, his machinery is not at all times employed. Wages, too, are higher than in the neighbouring colonies. His hemp, which he imports from Manilla to Melbourne in full cargoes, is charged on the railway or lighters from Port Chalmers to Dunedin by measurement, thus increasing the cost very much. If the Government were to raise the duty on rope 50 per cent., the manufacturer would undertake that his price should remain the same as it is now; and he would be able to carry on his works successfully.

211. *By Mr. Stevens.*] There is no duty on hemp. It costs about £30 per ton laid down here. If the railway charges were changed from measurement to weight it would save 3s. 4d. per ton. The rope meets with a ready sale at £48 per ton, leaving a profit of £4 per ton—the cost of production being £44. He has not produced more than 4 tons per week on an average during the last two years. He employs only six hands at present. The works are capable of turning out 15 tons a week by the employment of three or four hands. The price of the Geelong rope is £45 per ton, less 5 per cent. discount. People buy the Dunedin rope at £48 because they want small quantities, and because they do not know that they can get the rope from Geelong cheaper. The Dunedin works do not make much flax rope; they are undersold by small makers, and the public do not sufficiently understand the difference in value between hand-laid and steam-laid rope.

212. *By Mr. Bain.*] The works produce rope, clothes-lines, any kind of small rope, except twine, and plough-lines. There is not the machinery for making twine for binding-machines. We use very little New Zealand flax. Most of our material is imported from Manilla to Melbourne. We sell Dunedin-made rope all over New Zealand. The stoppages of machinery have occurred from accumulation of stock. If the duty were raised by £2 10s. per ton the price of the imported article would be about £48, or the same price as the local manufacture. The rate of wages here is fully 25 per cent. higher than in Geelong.

BUILDING-STONE.

No. 177.

Mr. B. S. CORLETT to Mr. Commissioner T. F. S. Tinne.

SIR,—

Tauranga, 20th May, 1880.

I hope that drawing your attention to what I believe would be a great boon to this locality, and particularly to the Lake District, will be worthy of the consideration of the Royal Commission on Native Industries. Others have, I understand, given you the information that bricks are the most expensive article to the consumers, and the least remunerative to the dealers, in the building trade of Tauranga. As we shall soon have good roads between Tauranga, Lake Rotorua, and Wairoa (the tourists' last station to Rotomahana), I wish to draw the attention of the Commission to the fact that at Wairoa good building-stone is procurable at a very small cost, and most easily worked. Large blocks are dislodged from the face of the hill, and roll to the flat below (50 feet from the main road), where they are easily cut to any required size or shape with a 6-foot or 8-foot cross-cut saw, and axe or adze, as the workmen think best. I will leave you to judge of the formation of the stone, samples of which Thomas Wrigley, Esq., has kindly offered to forward by next boat south. As above stated, the stone is easily procured and worked when dry, and more so when first quarried; it contains much water, but on exposure to the weather becomes very light—so much so that a cubic foot would not weigh 30 lb.; the grain is hard and sharp, but crumbles away a little on the surface if unduly used. If the quarry could be worked, the stone would become better in quality, and would answer the purpose of building walls and chimneys, as it stands heat remarkably well. The chimneys of the Native-school buildings, Ohinemutu, erected last year (the erection of which I had the honor of superintending), are built of this stone; and I can assure you that I could not wish to see a more suitable and cheap stone used for the purpose. A double-flued chimney of this stone, 25 feet high, costs £26 at Ohinemutu; and a similar chimney, built of bricks, costs £75, or nearly three times as much; the freight of the bricks and lime alone being £55 from Tauranga to Ohinemutu. As the Lake District is likely to become of great importance, something might be done by Government to acquire possession of the said quarry, and also timber-reserves between that and Lake Taupo, so that builders and consumers need not be under and suffer through being subject to the capricious will of the Natives.

B. S. CORLETT,
Architect.

No. 178.

Evidence of Mr. B. S. CORLETT before Mr. Commissioner T. F. S. Tinne, at Tauranga, 25th May, 1880.

My name is *Benjamin Stott Corlett*. I have been seventeen years in New Zealand. During the whole of that time I have been engaged in the building trade, and in supplying designs for buildings. I have been settled for three years at Tauranga. I superintended the erection of the Native-school buildings at Ohinemutu. While there, the building-stone to which I refer in my letter was brought specially under my notice; but I had seen the stone before that time. I used it in the chimneys of those buildings in preference to brick, for its quality, its ease in working, as well as for its lower cost. The cost of bricks in Auckland at that time was 30s. per thousand; landed at Tauranga, they cost £4 per thousand; and it cost 1d. per pound to carry them from Tauranga to Ohinemutu. Each brick being taken at an average of 8 lb., a thousand bricks would cost £37 6s. 8d., delivered at Ohinemutu. Timber, and everything else, is charged at the same rate for carriage. The distance is forty-five miles. The cost of the stone, delivered at the same place, amounted to £30 for a quantity equal to 4,000 bricks—that is, £7 10s. for a quantity equal to 1,000 bricks. This stone is on Native land, and I consider it most desirable that the Government should obtain the freehold of it, as not only will it be useful for building in the Rotorua District, but it is so light that it can be easily transported; and when communication with Tauranga and other places is improved, it will be available for many uses in the building trade, building-stone being as yet unprocurable from any other known cheap source in Tauranga. As the

stone is worked to a greater depth, no doubt a better quality will be procured. I should like to bring before the Commission the urgent necessity that exists for improved means of communication between Tauranga and the Lake District, both as regards cheapness and speed. There are several very weighty reasons for desiring improvement in this direction. Not only does the passage of tourists through Tauranga greatly conduce to the prosperity of the district, but if better communication were available, such as a single line of railway—say by the route already indicated by the Government Engineer—the resources of the interior of the North Island would derive a very beneficial impetus. Approaching and on the western side of Lake Taupo, there exist large forests of well-grown totara timber: it would be a great advantage if this timber could be obtained for use in the surrounding district. There are large areas of land in the hands of Natives between Tauranga and Lake Taupo, and surrounding the lake, with which I understand the Natives are more willing to deal than they have been hitherto. These lands are very suitable for sheep-runs, as they grow good native grasses. There is one run in that district (Grace's) from which the fleece of upwards of 4,000 sheep has been sent during this last season through Tauranga for shipment to England; and, in spite of the enormous charges incurred for carriage, this route was preferred to any other for the cheapness with which the wool could be delivered on board ship at Auckland. I was informed by one of the shareholders in this run that next year they will have the fleece of 16,000 sheep to forward through Tauranga. There can be no doubt that, if the improved means of transit which I am advocating were in existence, many would be induced to take up runs in the Taupo District, which would conduce not only to a great increase in the exportable produce of the colony, but also tend greatly to a satisfactory solution of the Native difficulty. This would very much accord with the ideas of the late Rev. T. S. Grace, the missionary of the interior, as it would enable the Natives to receive the benefits of civilization, and afford them a revenue from their land to support them in their decline as a race, thus relieving the Native Office of the burdens it now bears in pensions and unnecessary employments

B. S. CORLETT,
Architect.

LIGHT-DUES AND PORT-CHARGES.

No. 179.

Mr. W. R. WILLIAMS to the Commissioners on Local Industries.

GENTLEMEN,—

Wellington, 25th March, 1880.

The remarks I would like to call your attention to are, light-dues and port-charges that the coasting steamers and sailing vessels are subject to in this colony—namely, paying the same in every port they enter, which tends to cripple rather than foster our local trade. I would therefore suggest that we should be put on the same basis as in Victoria and New South Wales—namely, paying both the above every six months. More especially I would call the attention of the Commissioners to the very heavy port-charges and light-dues that all vessels are subject to at present trading from this port to Westport and Greymouth; and, unless steps are taken to reduce the same, the trade that we now have will soon be driven away.

I have, &c.,
W. R. WILLIAMS.

No. 180.

Mr. J. REES GEORGE to Mr. Commissioner A. J. Burns.

SIR,—

Wellington, 31st March, 1880.

I have the honor to acknowledge the receipt of your circular on the subject of local industries. I presume information on the subject of gas-manufacture will not much assist the Commission; but should you desire particulars I shall be happy to supply any that may be required.

Shipbuilding.—About two years ago the Wellington Patent Slip Company built a schooner of 80 tons register now sailing under the name of the "Poneke." She is in all respects a first-class vessel; but the result of the experiment was a serious loss to the Company, and while the present depression exists there is no inducement to proceed further with this industry.

Ship-repairs.—The Wellington Patent Slip Company can carry out repairs of all kinds to wooden vessels, but as yet the work available is not sufficient to induce the Company to erect a foundry and fitting-shop for the repairs of steamers and iron vessels, and only blacksmiths' work is undertaken.

I have, &c.,
J. REES GEORGE.

No. 181.

The CHAIRMAN, Mongonui County Council, to the Chairman of the Local Industries Commission.

SIR,—

Mongonui, 2nd April, 1880.

I have the honor to acknowledge the receipt of your circular of 17th ultimo in reference to local industries. I cannot speak particularly about the local industries in the whole District of Auckland, as we are so far removed from that centre of civilization that this district is almost a *terra incognita*; nor yet am I able to give much information about the local industries of the county, for, so far as I know, there are none. If the Government would spend some money in opening up this district, it would add considerably more to the benefit of this district in particular, and to the colony as a whole, than by spending money here on local industries. As long as this fine district remains as it is, perfectly inaccessible, it would be worse than useless for the Government to spend money here on local industries. It may add to the benefit of the district by having Government money spent in it; but, as far as this district is concerned, I should protest against what I should consider a wasteful expenditure as long as the district remains in such a wretched and miserable state through want of roads. I have not the least doubt that several industries would be started if it was at all possible to

have communication with the interior; but, as it is now, it is a mockery to hold out any inducement to our settlers of this extreme North to attempt anything of the sort. My chief and, I may say, my only suggestion to the Commission is, Give us roads; we have the land. With roads come population, and consequently personal, local, and colonial prosperity; without roads or means of access to ports and markets, any support the Government might give to local industries would be squandered. There have been indications of coal seen in several parts of the county—at Mongonui, Awanui, and lately at Whangowa. If the Government could be persuaded to grant a sum of £500 or so to test these particular places, it would not require any further assistance to carry this industry on in case coal was found in quantities.

I have, &c.,

ROBERT M. HOUSTON,
Chairman, C. C.

No. 182.

The CHAIRMAN, Clyde County Council, to the Chairman of the Local Industries Commission.
SIR,— County Council Office, Clyde, Wairoa, 6th April, 1880.

I have the honor to supply in the margin* hereof a short list of existing industries in this county. With regard to fostering and encouraging new industries, I have to submit the following:—

1st. *Tanning*.—That a premium should be offered for the production of trees affording a bark suitable for tanning purposes.

2nd. *Flour*.—That a bonus should be offered for the first ton of dressed flour produced in the district.

3rd. *Paper*.—That a bonus should be offered for the production of paper.

I have, &c.,

W. F. SMART,
County Chairman.

No. 183.

The SECRETARY, Canterbury Chamber of Commerce, to the Chairman of the Local Industries Commission.

SIR,—

Christchurch, 9th April, 1880.

I have the honor, by direction, to acknowledge receipt of your circular letter of 17th March *re* local industries; and I am instructed, in reply thereto, to hand you copy of resolution passed at a special general meeting of members, held on the 7th November last, for the consideration of same question:—

“This Chamber is of opinion that relief may be afforded to local industries by the remission of Customs duties on articles imported and used for manufacturing purposes.”

I have, &c.,

JAMES A. BIRD,
Secretary.

No. 184.

The MASTERTON BOROUGH COUNCIL OFFICE to the Chairman of the Local Industries Commission, Timaru.

SIR,—

Town Clerk's Office, Council Chambers, Masterton, 10th April, 1880.

I have the honor, by the direction of the Borough Council, to enclose a copy of the suggestions and information relating to this district, as prepared by the Borough Council in accordance with your invitation.

I have, &c.,

R. BROWN,
Town Clerk.

The following is a list of the local industries at present existing in the Masterton District, Wellington:—1 water-power flour-mill, 1 steam-power flour-mill, 2 steam sash and door factories, 2 steam saw-mills, 2 breweries, 1 soda-water and cordial factory, 2 nurseries.

Chief productions: Timber, grain, wool, hides, tallow.

The Council respectfully offers the following suggestions with reference to the establishment of new industries in this district:—

1st. A woollen factory.—There are large water-powers in all directions in the district, capable of being utilized for mills or factories at but little trouble and expense, there being a manageable river, with sufficient incline to serve a mill at about every ten chains. Easy communication by rail with Wellington, as an emporium, the distance being only sixty-five miles. The district is a great wool-growing one: the quantity leaving the district annually is estimated at 4,000 bales, equal to about 600 tons, chiefly long-wool. Not a particle of this can be manufactured here yet, for want of capital. Masterton being the centre of the population of the district, and rapidly increasing in inhabitants, an industry of this kind is very desirable, to settle people in the place.

2nd. Oatmeal factory.—This district being also a considerable growing one, particularly of oats, there is an opening for the establishment of a manufactory of oatmeal, groats, &c. There is a steady and increasing consumption of oatmeal here, and at present the article is imported in large quantities. The oats produced in the district could be converted into meal, and placed in the market locally at a much less cost than the imported article. There are plenty of energetic people here who would embark in such an enterprise, but they are deterred by want of capital.

3rd. Pottery.—There is a large quantity of fine clay in the district, suitable for the manufacture of all kinds of potters' ware.

*Brickmaking (2), fellmongery (1), ropemaking (2), hop-drying (1), whaling (12 boats).

4th. Tannery.—The export of hides from the district is considerable; and the establishment of a tannery would be of great benefit to the district, and to Wellington City. For the purpose of encouraging this kind of industry generally, the Council would respectfully recommend the policy of offering inducements for the planting of the Australian wattle.

5th. Cement.—It is considered that there are many facilities for the production of this article in the district, and, were such an industry established, a good export trade could be carried on in addition to the local consumption.

No. 185.

The MAYOR, Hokitika, to the Chairman and Members of the Local Industries Commission.

GENTLEMEN,—

Town Hall, Hokitika, 10th April, 1880.

I have the honor to state that, on receipt of your circular, steps were taken to prepare the information you desire with regard to the development of local industries in Westland; and I have now the honor of forwarding the report on the subject, prepared by a committee appointed for that purpose, and approved by a meeting of residents interested in local industries, called together to consider the same.

The circumstances connected with a new gold field, and the comparatively young state of this district, have prevented, up to the present time, the development of anything like local manufactures; and this committee have therefore dealt principally with the main industries of the Coast, believing that attention to the fostering of these in the first instance is of principal importance, and that, as these industries progress, the others will follow. We should have been glad of a visit from your Commission.

I have, &c.,

McLEAN W. JACK,
Mayor.

REPORT on the Development of Local Industries, Westland.

Town Hall, Hokitika, 8th April, 1880.

GOLD-PRODUCTION is the main industry of the people, and is therefore the first subject to engage attention. From March, 1865, to January, 1880, inclusive, 2,076,851 ounces, of the value of £8,307,40½, were produced, according to the Customs returns, from Westland alone, exclusive of the Grey Valley; and the yield is being not only steadily maintained, but has gradually improved yearly during the past three years. Gold-workings on the beaches along the whole coast-line, from the Teremakau River to Jackson's Bay—a distance of 180 miles—prove that the interior of the country (the greater part of which is even now unexplored) is highly auriferous, as the gold has of course been deposited by the various rivers in the beach-sands. The industry should be encouraged by giving the most liberal possible aid, by way of subsidy to prospecting parties, under the system and regulations now in force, which answer fairly enough if administered and interpreted in a liberal spirit. A leading feature in fostering the gold-mining industry is that of aid to water-race construction. No expenditure, however, should be incurred in connection with water-races without the fullest inquiry as to the facilities for bringing the water on the ground, the reproductive nature of the ground to be worked by the race, and the available means for the removal of tailings. In connection with water-races, sludge-channels and drainage-tunnels will be entitled to mention as works deserving of every possible assistance from State funds. Another valuable means of encouraging the industry, in densely-bushed country such as this, is the construction of tracks to open up the interior, thereby enabling prospecting to be carried on at a moderate cost. Several notable instances might be cited, in which the construction of a road or a bush-track has led to the most important gold-discoveries. The Kumara gold field, the richest alluvial field now being worked in New Zealand, owes its existence to the fact that a road was constructed through the locality; and without that road, the Kumara gold field would probably be unheard-of to this day. Large rewards should be provided for the discoveries of new gold fields. The importance of giving facilities to mining districts, by the introduction of the newest and most suitable machinery and appliances for saving gold, and making such inventions available to the ordinary miner, should not be lost sight of; and boring-rods and drills should be at the disposal of local bodies in mining centres, so that new ground could be speedily and properly tested. A considerable proportion of gold is lost owing to the want of information regarding gold-saving methods and apparatus; and were boring-rods and drills at work in various places, much unnecessary labour and expense would be saved, and the result would be a vast benefit to Westland and to the colony generally.

Silver.—Large sums of money have been expended in the search for silver-lodes, and the indications of a considerable extent of country are such as lead to the belief that considerable and valuable deposits of this metal exist. The recommendations made with regard to prospecting for gold will, of course, apply in the case of parties expending private funds in the search for silver.

Timber.—The timber-lands cover an area of 2,000,000 acres, and comprise the most valuable forests of the various hardwoods, so useful for building and other purposes. The great drawback to the carrying-on of the timber trade hitherto has been the variable condition of the Hokitika bar, and the consequent expense of getting vessels in and out of port. The obvious way of remedying this is by the completion of the harbour works now in progress (and which have already greatly improved the harbour), and the adoption of some means by which the towage of vessels can be reduced to a minimum cost. Large orders for timber-supply are repeatedly declined in consequence of the difficulty of getting the timber exported. The supply is practically unlimited, and the demand is always large; but, owing to the impediments above referred to, the trade is in a languishing condition, instead of being a great source of commercial wealth and giving employment to hundreds of persons. The manufacture of doors and sashes is altogether retarded by the high rate of labour on the Coast.

Coal.—Several coal-seams are known to exist up the Hokitika, the Totara, the Paringa, and Haast Rivers. On the Paringa River a very valuable discovery of coal has just been made. The seam is 8 feet thick, and of very superior quality.

Copper.—Copper ore has recently been found in quantity on the Haast River. A sample of this ore is now in the hands of Dr. Hector for assay. As regards coal and copper we recommend that liberal assistance, in the shape of subsidizing local efforts, should be given.

Marble.—The marble-quarries at Caswell Sound are of great extent, and the quality of the stone is equal to any in the world, not excepting Carrara marble—as is proved by the fact that the Caswell marble, competing against Italy and other famed marble-producing countries, took the first prize at the Sydney Exhibition. In order to enable these quarries to be worked and opened out, and made available for commercial purposes, a large preliminary outlay is necessarily required; and we would strongly recommend that assistance should be given, either by way of pound for pound expended, or by a liberal bonus on the successful production of, say, the first 500 tons of stone from the quarries. We may remark that competent experts in London and other parts of the world have examined and tested this stone, and pronounced it to be of the highest possible class; and this fact warrants us in urging that large assistance be given in making the product available, and so adding a large source of wealth to New Zealand. In Italy, similar quarries have been worked for the last 2,000 years. At Carrara alone 1,200 men are constantly employed, besides many thousands more at Genoa, Corsica, and Sicily. The annual rental of the Carrara marble-quarries is £38,000, and the yearly exportation of the raw material exceeds £500,000 sterling. The larger blocks of this marble are worth from £2 to £3 per cubic foot, and the material can be shipped with the greatest facility from Caswell Sound.

Lithographic Stone.—The recommendations and remarks just made with regard to opening up the marble-quarries apply with equal force in the case of the lithographic-stone quarries at Abbey Rocks, excepting that in this case the bonus should be on the production of, say, the first 20 tons of stone. The fact of special importance to this colony in connection with these industries is this: that the working of the quarries would give constant and permanent employment to many hundreds of persons. The supplies of lithographic stone for the whole world are now drawn from Bavaria, and the industry there gives homes and living to thousands. The establishment of such works as these creates industries for all time, and leads to the permanent settlement of population in districts where no population exists. The lithographic-stone supply at Abbey Rocks is illimitable. Besides its use for lithographic purposes, it serves also for various other uses, such as tiles, lintels, door-steps, &c. A considerable sum of money (£5,000 on the lithographic-stone quarries alone) has been spent in ascertaining the value and extent of the stone at the quarries; but the large expenditure required for the first opening-out of the rocks has prevented their development, and a very great source of wealth to the colony is thereby completely lost.

Leather.—The manufacture of leather is successfully carried on in Hokitika, and an article is produced which has a high reputation in the trade. The establishment of boot and shoe factories would give work to a large number of young people now seeking employment. We recommend the granting of liberal bonuses, either on the hands employed, or on the production of stated quantities of boots and shoes.

Concluding Remarks.—The absence of railway-communication is the great drawback to the establishment of all and every industry on this Coast. Were the East and West Coast line constructed, an immense impetus would be given to trade and manufacture on both sides of the Island. On this side we have exhaustless water power and supply, coal, timber, and the best possible sites for factories; and, were railway transit practicable, we should be able to get the raw material, such as wool and hides, &c., delivered at a small cost. In the absence of the railway, almost insuperable obstacles to the establishment of industries of any kind present themselves; and we conclude by saying that the Government who will unite the East and West Coasts by rail will do more for the real welfare of the colony and for the young persons now growing up around us, by rendering the establishment of various industries practicable and valuable, than any Government has yet done for the welfare of these Islands.

MCLEAN W. JACK,

Mayor.

H. D. RAE,

Hon. Sec. to the Committee.

BLASTING-POWDER.

No. 186.

Mr. J. RENSHAW to Mr. Commissioner A. J. Burns.

SIR,—

Thames, 13th April, 1880.

Artisans' tools in many businesses are admitted duty-free. Our main industry is mining. Some time ago I applied for a remission of duty on miners' shovels (at present 16½ per cent.), considering that shovels ought fairly to come under this head; but the remission was not granted. I think this relief should be accorded.

Blasting-powder admitted free has heavy charges levied in connection with it, as magazine-rent and license to sell; but what I complain of is the charge for removal license. Every time powder is removed from the magazine to our premises a shilling license has to be obtained, and this authorizes the removal of 50 lb. only, or two kegs; so that for every two kegs, even though we remove twenty at once, there has to be a separate license taken out and 1s. paid. Payment of 1s. only for each removal would cover cost of keeping the record, and should be sufficient.

I have, &c.,

JAMES RENSHAW.

No. 187.

Evidence of Messrs. JAMES RENSHAW and JOHN H. SMITH before Mr. Commissioner A. J. Burns, at Grahamstown, 13th May, 1880.

We wish to have the restrictions removed on the issue of blasting-powder. We wish to have issued to us as many pounds of blasting-powder on one license as we may require in any one day. At

present we require a separate license for every 50 lb. we require, and for every license 1s. is charged. We also think the duty ought to be remitted on miners' shovels, as they are their tools used in their business, and brought under the head "tools." This might be done in the shape of a drawback or under the Commissioners' decisions.

JAMES RENSHAW, Ironmonger.

J. H. SMITH (for Shortland Saw-mill Company, Limited).

No. 188.

The CHAMBER OF COMMERCE, Invercargill, to the Chairman of the Local Industries Commission, Timaru.

SIR,—

Invercargill, 14th April, 1880.

I have the honor to acknowledge the receipt of your circular letter *re* local industries, and herewith enclose resolution agreed upon by this Chamber at yesterday's sitting.

I have, &c.,

JOHN TURNBULL.

Resolution referred to above.

"That this Chamber acknowledges receipt of the circular from the Chairman of the Royal Commission *re* local industries, and, having duly considered the same, would recommend a system of liberal bonuses for the production of manufactured goods, in order to equalize in some degree the higher rate of wages ruling in this colony with the rates prevailing in older countries."

No. 189.

The AUCKLAND WORKING-MEN'S POLITICAL ASSOCIATION to Mr. Commissioner Tinne.

SIR,—

Franklyn Road, Auckland, 16th April, 1880.

I am instructed by the committee of this Association to ask if you would kindly present to the Royal Commission *re* Native Industries the enclosed suggestions as to alterations we consider necessary in the tariff. In respect to the particular nature of the suggestions asked for by the Commission we were in total ignorance until too late for consideration; not from any apathy or neglect on our part, having written to the Chairman on the 18th March, and telegraphed on the 30th of the same month, asking him to kindly furnish to us the nature of information sought, but without eliciting reply. A circular did reach the secretary, through the kindness of the Hon. H. Chamberlin, on the evening of the 15th instant, in which it stated that replies thereto were to be sent in by the 16th. We venture to say, sir, the Chairman of the Commission has treated us neither fairly nor courteously; we view it as an attempt to slight this and kindred associations, and naturally feel sore. Moreover, it would certainly appear as though he even were not over-anxious to obtain all possible information. Had a circular been sent us in answer to my letter we should have had an opportunity of considering the matter in respect to particular information sought: as it was, after waiting day after day for reply, our committee were compelled to meet, and the only course they could adopt was to forward the enclosed, being what they supplied to the late select committee.

I have, &c.,

J. FAWCUS,

Hon. Sec.

SUGGESTED ALTERATIONS in TARIFF, from the Auckland Working-men's Political Association.

Steam-engines, and parts of steam-engines for land purposes, 30 per cent.; machinery for steam-vessels under 250 h.p. nominal, 30; machinery for quartz-crushing, 25; planing, punching, screwing, shearing, and turning machinery, 25; pumps and other apparatus for raising water, 25; agricultural machinery, 25; crab-winch and capstans, 25; railway plant and other material, 25; iron bridges, and all material which may be imported for construction of wharves, jetties, or patent slips, 45; weighbridges for carts, 50; wool and hay presses, 25; iron forges, 25; lamp-posts, 35; ploughs and harrows, 25; embossing-presses, 25; copying-presses, 25; springs, 25; screwjacks, 25; boring-tools, 25; stoves, grates, and ovens, 25; iron bedsteads, palisading, and balusters, 25; fire-bells and church-bells, 25; horseshoes, 20; bolts, nuts, screws, rivets, and castings for ships' use, 25; cast-iron lasts, 40; steel springs, 25; iron tanks, otherwise than malt tanks, 15; buckets and tubs of iron, 25; manufactured brass, 25; church furniture, 25; builders' furnishing, 20; carriages, carts, drays, and wagons, 30; washing-machines and mangles, 30; buckets of wood and tubs of wood, 50; churns, 30; perambulators, 25; toys, wooden, plain or painted, 30; earthenware drainage-pipes, tiles, and fire-bricks, 25; all imported furniture, to be subject to 50; bellows, 25; Venetian blinds, 20; fireworks, 20; all baskets and wickerwork manufactured, 25; manufactured cork articles, 20; mats and matting, 20; twine nets, 20; all tinware be subject to duty, 25; sheet-zinc, instead of paying 10 per cent., be admitted free; ridging, guttering, and pipes for drainage purposes be charged 20; lead and composition pipes, 5s. per cwt.; empty bottles, 25 per cent.; commercial printing, 20; on all silk articles made up, 30; leather bags and leather cut into shape, 20 per cent. That duty on all manufactured boots and shoes be the same as imposed by the Victorian tariff. All candles, 2d. per lb. (except wax, 6d. per lb.; tallow, 1d. per lb.); on all imported coal, 2s. 6d. per ton; on all apparel and ready-made clothing, 30 per cent. This Association requests the attention of the Commission to the fact of American bottoms on this coast trading in competition with colonial vessels. Requested that the attention of the Commission be called to the matter of sugar duty, to encourage sugar-refiners in this country; and that the attention of the Commission be directed to the necessity of encouraging paper-manufactories in this colony.

Signed on behalf of the Auckland Working-men's Political Association,

JOHN FAWCUS,

Hon. Sec.

No. 190.

Mr. W. SERVICE to the Mayor of Auckland (forwarded to the Commissioners on Local Industries).
SIR,—

Karangahape Road, Auckland, 17th April, 1880.

In reference to the advertisement for suggestions to promote local industries, I would say that eight or nine years ago I was in the State of Kansas, United States of America, for a year or two, and, although an Englishman, was a member of the Board of Trade for the City of Wyandotte. This being a new city, not fourteen years old, it was deemed desirable to establish manufactories, and to induce men of capital to come from the East and settle out West. The City Council made offers, such as a gift of one to two or three acres of land for a woollen mill, or a remission of taxes of 10 or 20 per cent. for the establishment of a furniture-factory or saw-mill. During the time I was there an iron-bridge building firm at Cincinnati, Ohio, were about pushing West. We wished them to settle at Wyandotte, but eventually they went to another city—I think Topeka—because they offered a more valuable subsidy than we did. As we have not one-third the manufactories here, although three times as old, as I have seen in American cities, I think, if we wish to foster industrial occupations, some such plan might be adopted with advantage; and certainly the colony has arrived at the stage when manufacturing would be for the benefit of all classes.

I have, &c.,

W. SERVICE.

No. 191.

Mr. JAMES HANAN to the Chairman of the Local Industries Commission, Timaru.

SIR,—

Invercargill, 17th April, 1880.

I have been under the impression that it was the 21st April, until I referred to your circular. Trusting that I shall be better late than never, I hereby name a few of the articles which the colony would be benefited by producing instead of depending on importation:—

1. A monumental stone, easily carved, that would be durable.—The Oamaru stone washes away and the lettering is soon obliterated. Greatly objected to. They are largely importing from Carrara in Italy. Some method should be devised to open up a quarry of suitable stone, so that monuments from 10 to 15 feet high could be got from £10 to £30. I believe a great number of orders could be obtained.

2. The manufacture of linseed-oil.—This is one of the most profitable crops which a farmer could have. The flax is used for ropes, cloth, mats, beds, &c. The seeds are pressed, producing oil to paint houses with, and as medicine for horses, and the core or renderings to feed cattle on.

3. White paint.—Inquire of Dr. Hector if a stone similar to barytes is known, of sufficient colouring matter to make white paint of. Barytes is used to adulterate white lead with. Best white lead is most valuable for artists, but for painting wooden houses does not last more than two years; the acidity of the lead corrodes and perishes the oil. I have given the last coat over it with fat linseed-oil and putty or whiting. This will last for ten to fifteen years.

4. Different colours.—A light-red paint similar to red lead; green and blue, by turning or changing the white into those colours; and the manufacture of putty for window-glass.

5. The manufacture of window-glass by encouraging competent men from Europe to manufacture it here.—The breakage in this article is something extraordinary. A great quantity of broken glass could be collected from the painters' shops.

6. Bar-iron.—A large quantity of scrap-iron can be got from the smiths' shops; and offer a reward for the discovery of iron ore in payable quantities, for wherever deep seams of coal exist, iron ore is sure to be found; and the manufacture of corrugated galvanized-iron plates.

7. The manufacture of Portland cement.—A vast quantity of this is used and imported. It is made in England of blue clay and chalk, mixed and dried on plates of iron, and then burnt. It should be of the best quality, as no other is suitable.

8. Machines of the best quality for making pressed bricks, and of simple construction.

9. Pickles to supply the shops with: it shows the indolence of the people not to make their own.

10. Proper machinery for the manufacture of white paper for newspapers.

I have, &c.,

JAMES HANAN,
Invercargill.

No. 192.

Mr. J. L. SINCLAIR to the Chairman of the Local Industries Commission.

SIR,—

Somerset Place, Auckland, 25th March, 1880.

During last session of Parliament I corresponded with the Hon. Mr. Chamberlin on the subject of native industries, and from some statistics he was good enough to send me I drew up a sort of tabular statement of the "Industrial Progress of the Colony." This was printed in the *New Zealand Herald* of the 3rd January, 1880, and, though now only approximate, may still be useful for reference. I sent copies to Sir Julius Vogel and some leading journalists at Home, with the view of showing what industries had been already established out here, and the probability of some being successful which, through over-competition and depression of trade, might not be able to maintain themselves in such numbers in Britain.

If you send any printed questions round, please cause copies to be forwarded to me, as I take the deepest interest in this question.

May I ask you to remember me to Mr. Tinne, and tell him I expect great things from this Commission.

I have, &c.,

The Hon. the Chairman, Local Industries Commission.

J. L. SINCLAIR.

No. 193.

Mr. J. L. SINCLAIR to the Chairman of the Local Industries Commission.

SIR,—

Somerset Place, Auckland, 19th April, 1880.

I enclose a copy of a letter I sent to the Hon. Donald Reid in 1877, and also one of his in reply to me.

I am convinced, if gentlemen can be got to give their services gratuitously on Education Boards, they can be found willing to examine and recommend new industries for the favourable consideration of the Government. There might be a Central Board of Trade, Manufactures, and Commerce at Wellington, in constant communication with the District Boards, or a Minister of Agriculture and Commerce might be appointed, who would attend to the agricultural and pastoral interests, as well as to the trade, manufactures, and commerce of the colony. The Agricultural Department might have the management of the Crown lands, conservation of native forests, the introduction of useful hardwood-trees (which our mechanics much want), along with the improvement of the cultivation of the soil, stock, dairy, produce, the application of machinery to agriculture, &c.

I have, &c.,

JAMES L. SINCLAIR.

Mr. JAMES L. SINCLAIR to the Hon. Donald Reid, M.H.R.

SIR,—

Wellington, 27th August, 1877.

I have heard you allude to the subject of manufactures in one of your speeches, and I now take the liberty of writing to you to see if the Government can do anything to foster the introduction of new industries into the colony. In 1866 I wrote to the Hon. the Attorney-General, suggesting the organization of a Board of Trade, Manufactures, and Commerce, for this purpose, in that province; but he was of opinion that such an association should originate with private individuals rather than with the Government, but that, should it be formed, the Provincial Government would give it all the countenance in its power. And when Mr. Gillies was Superintendent, I wrote to him with the same object; but his reply from Wellington was to the effect that it would interfere with free-trade. Now, if we turn to Britain, what do we find? Whitelock says, in his "Memorials," that Oliver Cromwell and his Council appointed a Council of Trade to consider how to improve, order, and regulate the trade and navigation of the Commonwealth; and Carlyle says it was an assemblage of dignitaries, chief merchants, and political economists, and he adds that this affair "was a business of much importance to the Commonwealth, and the Protector was eagerly set upon it." This Council of Trade was undoubtedly the germ of the present committee of the Privy Council commonly known as the Board of Trade; but for this colony an establishment such as I have suggested might promote, by pecuniary and honorary rewards, any means by which the natural productions of the country may be made more available, useful industries; that enterprising persons may start undertakings of a kind that are likely to extend the sphere and operations of colonial commerce.

I have, &c.,

JAMES L. SINCLAIR.

The Hon. Donald Reid.

The Hon. DONALD REID to Mr. J. L. Sinclair.

SIR,—

Wellington, 18th September, 1877.

I have the honor to acknowledge the receipt of your memorandum of the 27th ultimo, on trade, manufactures, and commerce, which I have read with much interest; and I desire to inform you that I shall always be prepared to give careful consideration to any practical suggestions for promoting the establishment of manufactures and the development of native industries within the colony.

I have, &c.,

DONALD REID.

J. L. Sinclair, Esq.

No. 194.

The WHANGAREI COUNTY COUNCIL to the Chairman of the Local Industries Commission, Timaru.

SIR,—

County Council Office, Whangarei, 21st April, 1880.

In reply to your circular letter of the 17th March, requesting information regarding the local industries or manufactures in the Whangarei County, &c., I have the honor to inform you that the local industries now being carried on in this county are—grazing, coal-mining, felling and sawing timber, fruit-growing, gum-digging, lime-burning, and tanning. The means I would suggest for establishing new or promoting existing industries would be the formation of railways and good roads to facilitate the carriage of produce from the inland settlements to the rivers and harbours.

I have, &c.,

FERGUSSON SMITH,

Chairman.

No. 195.

NOTE by Mr. Commissioner BAIN, 23rd April, 1880.

J. J. MACDONALD, lime-burner, near Winton, Southland, suggests that lime should be carried on the railways at the same rate as native coal—that is, 20 per cent. reduction on mineral rates. He says that on much of the cold, wet land in Southland lime is a necessity, and if the farmers could get it cheap enough they might be induced to use it largely in improving their farms. Mr. Macdonald further suggests that if yearly tickets were issued by the Railway Department at, say, £50, traders would be enabled to extend their business more readily, and traffic would thereby be created for the railways. The difficulty about transference of these yearly tickets could be got over by having the photograph of the holder on the ticket.

FIRE-ESCAPE.

No. 196.

NOTE by Mr. Commissioner BAIN, 23rd April, 1880.

MR. RICHARD MORRIS, of Waikiwi, near Invercargill, sends to the Royal Commission on Local Industries a rough sketch of a fire-escape which he has invented; and is anxious to know if anything can be done in the way of giving him assistance to develop it, he being himself without means. A certificate from Mr. Dartnall, District Engineer, accompanies the sketch.

J. WALKER BAIN.

Mr. W. W. DARTNALL to Mr. Commissioner J. W. Bain, M.H.R.

SIR,— Public Works Office, Invercargill, 19th April, 1880.

Having been asked by Mr. Morris, of Waikiwi, to inspect the new fire-escape invented by him, I would take the opportunity of stating that I have done so, and consider the machine deserves a fair and impartial trial and due consideration (from all who wish to foster local industries, and save life and property) on the grounds of its cheapness, lightness, and compactness. The machine should be put in the market at a cost of £5 to £5 10s. complete, and would not weigh more than from 40 lb. to 50 lb. The size when closed up in a box would be about 2 feet 6 inches long, 2 feet wide, and 15 inches deep; and when the machine is perfected it could be made much less. I consider it also quite safe for the purpose. It is not perfect, but, being so simple in its construction, can be improved easily.

I have, &c.,

W. W. DARTNALL,
District Engineer.

No. 197.

The CARTERTON COUNTY COUNCIL to the Chairman of the Local Industries Commission, Wellington.

SIR,— Council Chambers, Carterton, 18th May, 1880.

I am directed by the County Council of Wairarapa West to acknowledge the receipt of your circular dated 17th March last, and to inform you that the Council is of opinion that "the best aid the Government of the colony can render local industries is by fostering quick means of communication with foreign markets—viz., England, Queensland, New Caledonia, and Fiji—thereby enabling the colony to dispose of its farm and grain productions, and the produce of its coal mines." The Council is of opinion that local industries are bound to establish themselves where the supply of food and fuel is large and cheap. I am further requested to inform you that the Council is not inclined to express any opinion upon direct aid to any particular industry.

I have, &c.,

COLEMAN PHILLIPS,
Acting-Chairman.

THE EXHIBITION OF LOCAL INDUSTRIES AT CHRISTCHURCH.

No. 198.

The Hon. the PREMIER to the Chairman of the Commission on Local Industries.

SIR,— Government Offices, Wellington, 27th July, 1880.

I have the honor to forward to you the report of a Committee appointed by the Government to inspect the recent Exhibition of Colonial Industries at Christchurch. The details given in this document will, I am sure, be interesting to the members of the Royal Commission on Local Industries; and I do not doubt it will be useful to them in reporting upon the very important subject referred for their consideration.

I have, &c.,

The Chairman, Local Industries Commission;

JOHN HALL.

No. 199.

REPORT OF THE COMMITTEE.

SIR,— Christchurch, 24th July, 1880.

The Committee appointed to examine the exhibits at the Exhibition of Colonial Industries at Christchurch have the honor to report that they visited the Exhibition on Tuesday and Wednesday, the 20th and 21st July, and were afforded every facility by the Chairman and members of the Exhibition Committee for prosecuting their inquiry. They found a large number of exhibits which were a gratifying evidence by themselves of the success which has so far attended the enterprise of local manufacturers, and a proof that many industries of great importance are already established here on the only secure basis—that, namely, of commercial profit as governed by the laws of demand and supply. They found also many exceedingly interesting exhibits, the results of experiments in industries which are yet in their infancy, but which seem likely before long to gain a footing in the country, and ultimately to take their place among the staple occupations of the people. The Exhibition was, further, adorned and rendered entertaining to visitors by a great variety of exhibits which were rather works of art or curiosities than industrial products, and upon which, therefore, the Committee presume the Government do not require them to report. They desire, before entering upon details, to express their high sense of the value of the Exhibition as a means of commending local industries prominently to the notice of the public, encouraging those who are engaged in them

to persevere with renewed energy in their various pursuits, and demonstrating to others the advantages to be derived from the application of labour, ingenuity, and capital to developing those resources which nature has so abundantly provided in New Zealand. They desire also to inform the Government that the manner in which the Exhibition was managed by a Committee of the Exhibitors was admirable, and to express their opinion that, in thus furthering in a most practical way the prospects of local industries, those gentlemen have rendered no inconsiderable service to the colony. The Committee place among the most important industries represented at the Exhibition, manufactures from clay—namely, pottery, earthenware, patent bricks and tiles, drain-pipes, firebricks, &c. They found this industry firmly established, though still in the early stages of its development. There are employed in the works of those exhibiting in this class about 150 persons, the rate of wages ranging from 7s. to 12s. per day. In the commoner class of goods the manufacturers state that they can already compete successfully with the importers, but that in drain-pipes, and those classes of goods which require skilled labour, they can barely do so at present, though they are sanguine of complete success in the future. The materials used in this industry—clay of various kinds, fireclay, and coal—are found in inexhaustible quantities in Canterbury, and fresh discoveries are being made from time to time. The products of this industry exhibited were of remarkably good quality, and much artistic talent of a high order was displayed in the manufacture of some of them. The Committee saw also specimens of marble of very handsome appearance, worked up into mantelpieces, &c.; but they are not able to state to what extent this industry is developed. Specimens were shown of a pure white chalk from Oxford, an invaluable ingredient in the manufacture of Portland cement. The Committee learnt with much satisfaction that this chalk is found in vast quantities in an accessible position, and that clay of a suitable kind for combining with it in the manufacture of cement is also believed to exist in the neighbourhood. The great cost of cement-works appears to be the chief drawback to the prosecution of the enterprise by a private individual. A sample of excellent whiting made from this chalk was exhibited.

The metal trades, including the manufacture of brasswork, iron goods, lead and brass castings, gas- and water-pipes, cooking-ranges, ploughs, tinware, such as baths, cans, and so forth, were largely represented, the exhibits being of a particularly gratifying character. These trades appear to be firmly established, and capable of competing successfully with importers, though labouring under some disadvantages incidental to a new country. The number of persons said to be employed in this trade is about 600, and the rate of wages was stated to be from 9s. to 14s. per day.

The woollen trade was represented by a magnificent exhibit of cloths of the finest quality, blankets, flannels, hosiery, and yarns. There are over a hundred hands employed in the factory where these goods are produced, wages varying from 10s. to 40s. a week. The goods find a ready sale, and the demand is constantly increasing. The manufacture of clothing, in which large quantities of locally-made cloth is consumed, is also a large industry; one firm alone, represented at the Exhibition, employing 500 hands, and producing goods of a superior quality at a lower price than those imported.

The boot-manufacturers exhibited a great number of excellent specimens of their handiwork. This trade is firmly established. It employs about 700 hands in Christchurch, and produces articles equal in quality to any imported, and at a lower price. The wages range from 10s. to £3 10s. a week. In other branches of the leather trade the Committee saw some splendid specimens of saddlery. In this industry, as in many others, the colonial manufacturer can defy the world in the highest class of work, but cannot compete in cheap goods with the English manufacturer. The saddlers employ about a hundred men, at wages varying from £2 10s. to £3 a week. The want of local tanneries is a great drawback to this trade.

The manufacture of hats was represented by a remarkably good exhibit. The quality of the locally-made hats is far superior to that of those ordinarily imported, and, quality for quality, the colonial manufacturer can easily compete with the importer, though the manufacture of low-class goods cannot be successfully undertaken here at present. There are about forty men employed in this trade here at present, and wages range from 7s. to 10s. a day.

Soap and candles.—This industry was very well represented, the exhibits comparing very favourably in point of quality with imported articles. They easily compete also in point of price, and are practically driving the imported articles out of the market. It was represented that this industry would be much facilitated by a development of the trade with the Pacific Islands, whence one of the principal ingredients for the finer qualities—namely, coconut oil—is obtained.

Bacon and hams, butter, and other dairy produce was exhibited in great profusion, and of splendid quality. This industry is assuming very large proportions, and has practically put an end to the import of these articles.

Manufactures from wood were represented by exhibits of very fine quality of wholesale woodware, turned and bent goods, spokes, &c., spokes made from the native kowhai attracting the particular attention of the Committee. These are said to be superior to either hickory or hardwood spokes. This trade easily holds its own against the importers, both in price and quality. A great number of persons are employed in this trade, one Christchurch firm employing, when in full work, fifty hands in one department of the business; whilst a Dunedin firm employs 1,100 in all the branches. Wages range from 7s. to 10s. a day. There was a fine display of furniture, the quality of the exhibits being really excellent. This trade is firmly established, and almost excludes the English manufacture. It employs about 300 hands in Christchurch, at wages from 7s. to 12s. a day.

Printing and bookbinding were represented by a variety of handsome and interesting exhibits. In bookbinding the local manufacturer can compete in the cheaper class of work, but not in the higher classes, for want of skilled labour and the particular kinds of leather that are required. There are between 600 and 700 men employed in these trades in Canterbury, at wages ranging from £2 to £4 10s. a week.

A notable exhibit of manufactures from flax (*linum*) attracted much attention. These included fibre, ropes, plough-lines, and twines of all sizes and qualities, some of them being altogether too good for ordinary use. The Committee learn that this industry is still somewhat experimental as a commercial venture. Rope from New Zealand *phormium* was also exhibited. This competes successfully with imported rope of similar quality.

Another interesting exhibit was that of linseed, linseed-meal, buckwheat, pease, pea-flour, and rye, all representing crops to which farmers might turn their attention with great advantage.

The manufacture of horse-nails of the finest quality was exhibited, and shown to be an industry capable of being easily and profitably carried on—at all events, for retail purposes. A string-binder attachment to a reaping-and-binding machine was exhibited, working with twine made from New Zealand *phormium*, and apparently answering the expectations of its inventor.

Two specimens of chaff-cutting machines of very good quality were shown. Here, again, as in so many other local manufactures, the imported article is beaten in point of quality; but the local manufacturer cannot produce inferior articles as cheaply as they are imported. In this case the difference exists in the frame of the machine being made of timber in the locally-made, and iron in the imported machines.

The carriage-making trade was represented by a number of superb exhibits, including a highly-finished brougham, dog-carts, Queen's phaeton, wagonettes, double buggy, gigs, and a hansom cab. In all these lines the local manufacturer can compete successfully with the importer, both in price and quality, but not in the cheaper class of goods. There are about two hundred and twenty men employed in this trade in Christchurch, at an average wage of £1 18s. 6d. a week. A strong farmers' dray was shown as a specimen of a new and important industry, quite separate from carriage-building. It was in every respect superior to imported drays of the same class, and the price was lower. Carriage-lamps locally manufactured were also shown.

A useful industry was represented by a varied exhibit of paper and pasteboard boxes for chemists, haberdashers, milliners, jewellers, and other purposes. These were of remarkably good quality—far superior to that of the imported articles; but the manufacturer stated that he can scarcely compete in point of price with the inferior goods imported.

The Committee desire to mention also the following exhibits, about which they have not obtained special information, but which they consider worthy of notice:—Wrapping-paper, coffee, confectionery, pickles and sauces, engravings on copper, bone-work, optical and scientific instruments, jewellery, brushware, basket-work, modelling in clay, improved washing-boiler, basket and cane-work, graining on wood, wines and beer, and bone-dust for manure, and many other smaller exhibits displaying much industry and ingenuity.

In conclusion, the Committee have the honor to state that the time at their disposal for examining the Exhibition and reporting upon it was far too short to allow of their doing justice to it; and they venture to suggest that, in the event of any similar exhibition being held hereafter, the Government should endeavour to ascertain for public information much more complete particulars than are hereby conveyed.

The Committee attach to the report various communications which they have received.

We have, &c.,

EDWARD WAKEFIELD, Chairman
(for the Committee).

The Hon. John Hall, Premier of New Zealand.

NOTES ON TINWARE.

No. 200.

MR. PIPER exhibited samples of plain and japanned tinware, &c.

In answer to Mr. Wakefield, *Mr. Piper* stated that, in the commoner class of tinware, such as camp-kettles or billies, buckets, and similar-quality goods, with the present tariff, manufacturers can hold their own, in consequence of factors, merchants, and others not importing, and manufacturers thus getting their individual share of the total local requirements, as the lines referred to above do not require first-class skilled labour, but are nearly altogether machine-made, and are also made the leading lines of English manufactories. The fact of colonial manufacturers being able, through having to supply the whole of the local requirements, to hold their own, proves that, if similar opportunity were given them to supply the better class of goods, requiring skilled labour, such as toilet sets, grocers' canisters, baths, &c., samples of which are now exhibited to the public, they could probably compete with outside manufacturers; but, as the total quantity required is not given to local manufacturers, but, in addition to the quantity brought into the market in the ordinary way as ordered, the market is kept overstocked in these and other lines by consignments which are invariably sold at a loss, or, at any rate, far below what the goods could be made for here. In consequence, local manufacturers are shut out, and the result is, that, as apprentices are absolutely necessary to the local manufacturer, when those boys arrive at the end of their term, their fit and proper class of work as skilled mechanics is wanting, and, after spending the best part of their life in learning a trade, they must either consent to do boys' work again at a nominal wage, or look for other employment. Comment on this is unnecessary. I would respectfully submit this feature of free-trade or modified protection to the best consideration of the Commission, and ask for an increase of duty on all japanned goods and stamped ware, milk-dishes, American baking-pans, for example; feeling convinced that private enterprise will immediately fill up the gap, and be the means of keeping about £5,000 per annum, less the cost of raw material, in Christchurch, that being about the amount of general tinware imported here.

No. 201.

Messrs. B. HALE and Co. to Mr. Wakefield.

SIR,—

Christchurch, 20th July, 1880.

We have forwarded to the Exhibition one of our own make aprons for reaping-and-binding machines, and would like to point out to you the disadvantage we contend against in the manufacture of them. We have to import the duck and ash sticks, and pay heavy duties on them, whereas the importers of the machines import them as extras without paying duty. Our opinion is, the importers should pay duty on the made-up article, as it gives a lot of work in making them here.

We have also forwarded one of our patent dressed tarpaulins, of same material as we have supplied the New Zealand Railways, and beg to say that, if the Railway Department, in calling for tenders for them, did so at the commencement of the dull season, which is about August, and gave ample time for making them, they would be able to be done cheaper and considerably better than if they were imported ready-made. Whenever tenders have been called for for making them here, the time given has been too short to turn out a first-class article.

We have, &c.,
B. HALE AND CO.

No. 202.

NOTES of an Interview between the Journeymen Hatters and the Committee.

A DEPUTATION of hat-manufacturers waited on the Commission, the speaker stating:—

Mr. Chairman and Gentlemen,—We shall not detain you long, as we know you have other business on to-day; therefore we shall be as brief as possible. You are probably aware that the hatting trade here is one that has a good deal of demand, as far as goods are concerned; but, as regards encouragement to manufacturers, that is almost *nil*. I may tell you as a fact that we, as journeymen, are not getting nearly sufficient, or even half of what we ought to get; they are much better in the Old Country than what we are here at the present time. I may further state that the depressed state of our trade is not caused through a want of demand for hats, but is simply because there has been no encouragement of our local industries, and consequently a number of the tradesmen are idle. Two are working at Weka Pass, and others looking for employment. Our trade, as far as journeymen are concerned, is in a deplorable condition. We are at a great disadvantage to compete with the importer. Wages here in the trade are about the same as those in the Old Country; but at the present time we have no machinery, and to bring out machinery to this country would mean an extra 50 per cent. The manufacturer would have to bear a difference of something like 200 per cent. on coal, 100 per cent. on rent, and something like 100 per cent. in building to that of the Old Country; and goods such as trimmings, shellac, gum, spirits, and the like, are subject to a duty which necessitates a percentage of about 50 per cent.: so that altogether it costs something like 400 per cent. to our disadvantage, and the only advantage we get is material such as wool, by which we save something like 300 per cent. We are not protectionists in principle, or free-traders; but, seeing it acknowledged here that there is a certain amount of protection given to certain trades—some as far as 35 per cent. and 40 per cent.—we wish to point out that on hats there is only about 10 per cent. In such as coal, rent, and machinery, there is a vast difference with Home manufacturers; but the cost of labour is about the same. We think our interests as journeymen ought to be considered. We know that if a protective duty was placed upon it, something like 100 per cent. upon all soft hats, and cubic measurement upon all hard hats, this would enable us as journeymen to live as well as our employers; and we are aware it would add very little to the cost at which the goods would be sold. It would not add one penny a hat to the cost, and would enable us to set machinery in motion, and employ a large number of hands, both male and female, also to utilize products of the country. At the present time local manufacturers are at a great disadvantage.

No. 203.

MEMORANDUM on the CARRIAGE TRADE from W. MOOR and SONS, Coach and Carriage Builders, to the Exhibition Commissioners, Christchurch.

GENTLEMEN,— Christchurch, 20th July, 1880.

Agreeably with your request, we beg to inform you that the articles manufactured at our works consist principally of English carriages and American buggies, in which manufacture we at present employ thirty hands.

Now that the duty is taken off many of the materials used in making carriages and buggies, we are able to produce them at prices which will, we believe, render their importation unprofitable and unnecessary.

In the matter of design, workmanship, and quality of material employed, we are in a position to challenge competition with any English or American manufacturers.

We may add, as an evidence of the stimulus the increased duty on imported carriages has given our trade, that we have this week made an offer to the Tramway Company to build cars at the same price as the imported cost, delivered in Christchurch.

We have, &c.,
W. MOOR AND SONS
(per R. F. C.).

No. 204.

MEMORANDUM on the CARRIAGE TRADE from A. G. HOWLAND, Coach and Carriage Builder, Christchurch, to E. Wakefield, Esq., Chairman of the Royal Commission on Local Industries.

SIR,— Christchurch, 21st July, 1880.

I have been requested to give you the following information in regard to coach and carriage manufacturing. In January, 1879, there were 212 persons employed in the above industry in Christchurch, doing a business annually of £35,300. Sixty per cent. of that amount—£21,180—paid for wages, being an average of £1 18s. 5d. per week for each person employed.

I have, &c.,
A. G. HOWLAND,
Representing the Coach and Carriage Manufacturing of Christchurch.

No. 205.

CARRIAGE-BUILDING TRADE.

SIR,—

Christchurch, 22nd July, 1880.

When handing you the information yesterday in regard to the number of people employed in the coach-building trade in Christchurch, I thought you would go over the carriages again, and I should have an opportunity of explaining to you more fully; therefore I beg to do so now.

My vehicles that you saw are a fair average of my every-day work. They are made of the very best imported material, and by as good workmen as can be procured anywhere, and, as you saw, well finished, and suited for the requirements of the country, and I am prepared to supply them to the public to compete with any fairly-imported work of the same grade, but am not able to compete with the consignments of cheap surplus stock that is sent out here from the United States and sold at any price that the agents may be offered for it. I may here state that the additional duty of 5 per cent. *ad valorem* imposed last session, and the raw material being let in free, has assisted us very materially; and I feel, if there was still another 5 per cent. added to the duty it would be the means of having less of that cheap rubbish sent out here, consequently we should have the market to dispose of our own work when finished, and should be able to supply the public at much less price than we do now, where we have the market glutted with such vehicles, and have to keep ours in stock until, in some instances, the interest of money and rents run into the price of the article when sold.

And I also wish to state, by these consignments being imposed on the market we have fully 35 per cent. of the people that were employed in the coach-building trade walking about the streets with nothing whatever to do, and most of them are really destitute. The coach and carriage trade imports several thousand pounds' worth of wood material annually. And I would suggest planting hickory, oak, ash, and elm trees on the railway sidings and reserves. By so doing it would greatly benefit the coach-building and other wood-working trades in future, and be the means of employing a great deal of labour in putting it into the shape that our coach-making materials are when imported. I may say there is machinery now in the country for bending rims and turning spokes and hubs; but, having no woods here suitable for light-carriage work, that machinery is comparatively idle. And, further, one great advantage that the coach-builders in the United States have over ours here is, having the material grown and prepared there, and can get what they want for the trade at any moment, where we have to keep large stock in hand, which means interest of money.

I have, &c.,

A. G. HOWLAND,

Coach-builder, Christchurch.

E. Wakefield, Esq.,

Chairman of the Royal Commission on Local Industries.

No. 206.

CARDBOARD-BOX MANUFACTURE.

GENTLEMEN,—

Christchurch, 22nd July, 1880.

I beg respectfully to bring to your notice a new industry—namely, the manufacture of cardboard boxes—used extensively throughout this colony, principally by chemists and druggists—such as pill-boxes, seidlitz-powder boxes, &c.; and by jewellers generally; as also by drapers, milliners, and others; of which large quantities, aggregating thousands of grosses, are imported into this colony, which articles I am prepared to manufacture in this colony, thus employing local labour and opening up a new field of industry, which cannot fail to enhance the welfare of the community at large by giving remunerative occupation to a large number of hands, thus creating a larger medium of circulation. I am fully satisfied that, were this industry fostered and encouraged by a protective tariff sufficient to enable me to compete with the importers in price—a measure to which the Americans had to resort in order to foster their trades, which suffered by imports from the older countries of Europe, and which measure has been eminently successful in promoting industries of all classes. Being connected with one of the largest box-manufactories in Philadelphia, I saw the industry to which I allude carried on by seven separate firms, who were amply capable of supplying the wants of the business community in the year 1865. At the present time there are upwards of thirty firms engaged in the business in that one city alone. Notwithstanding all the increased facilities which the more modern inventions in machinery afford, they employ large numbers of men, youths, and females of all ages, many of whom are physically incapable of performing the duties of the heavier class of labour. It will be understood that this industry was subservient to the others, being merely a channel of supply to them. As a matter of course, this industry did not stand alone; there were innumerable others started up from a languishing condition to one of vigorous activity, under the fostering influences of a wise and discriminating protective policy, which imparted a confidence to the manufacturing community, and also led to the opening-out and development of the resources of the country, as there is abundant room to do in New Zealand. I could give permanent employment to a large number of females of that class who are physically incapable of fulfilling the heavier labours of domestic service. And as the population of our cities increases the question naturally arises. What shall we put our children to? All cannot be agricultural labourers; all cannot be domestics. After these markets are full of this class of labour what shall we do with the surplus if other avenues of industry are not opened up to them, which can only be done in a new country like ours by giving substantial aid to local manufacturers. For the information of your honorable body I beg to state that I am now manufacturing the above-named articles at a considerably lower figure than the importers are now selling at, and am prepared to supply all demands of the trade; but am deterred from launching out more fully, which would entail considerable expense on me, and the great risk of loss by the competition of the importers, who, from the margin of profit they at present have, could run me out of the market. As before stated, I am now in a position to offer to the public my goods at a lower figure than the importers' present prices, in addition to employing local labour, which latter would of itself be a gain to the country. In view of the aforementioned facts, your petitioner humbly begs that your honorable body will represent the case as herein set forth to the Government.

I have, &c.,

The Honorable the Commissioners on Local Industries.

ALEXANDER AULSEBROOK.

No. 207.

City Steam Saw-mills, and Sash, Door, Joinery, Turnery, Spoke, and Woodware
Factory, Lower High Street, Christchurch, 23rd July, 1880.

SIR,—

I forward the following information to show that all the articles enumerated below can be locally manufactured, and that there exists no necessity for importing any of them; and, further, I am of opinion that, with the present Customs tariff, manufacturers in the same line as myself will be able to hold their own against imported articles.

Owing to the limited space at my command in the Industrial Exhibition lately held in this city, I was unable to exhibit more than a few of the various articles manufactured at my factory.

My exhibit comprised the following articles:—Heavy dray-spokes, dressed; light dray-spokes, dressed; spring-cart spokes, dressed and tenoned; carriage-spokes, dressed and tenoned; kowhai carriage-spokes, dressed and tenoned; bent kowhai timber for carriage-work; improved bee-hive, with machine-made box-frames, as supplied by me to the Canterbury Beekeepers' Association. Turnery, consisting of gable-finials; stair-newels; balusters; ladder-rounds; belaying-pins; couch and sofa fittings, with sawn scrolls; cornice poles and ends; chair-legs; chiffonier columns and drops; drawer stumps and knobs; gate-post knobs; cot-posts; table pillars and drops, with sawn claws; billiard-table legs (fluted and octagonal); dining-table legs (fluted and octagonal); dressing-table legs (fluted and octagonal); wash-stand legs (fluted and octagonal); desk-legs (fluted and octagonal); French bed-posts (fluted and octagonal); pateras. Fret-saw work; scroll-saw work; band-sawn brackets; band-sawn trusses; carved trusses; carved brackets; carved spandrel (oak-branch and acorns); carved spandrel (rose, shamrock, and thistle); carved trusses, with bunches of grapes; carved lion's head; elaborately-carved head, with bunch of fruit suspended; carved caps and bases for plate-glass shop-fronts; machine-wrought brackets; machine-wrought bolection and other mouldings; machine-wrought circular architrave mouldings for door and window heads (similar mouldings can be worked to any radius); machine-wrought waved mouldings on a straight line; machine-wrought waved mouldings on a circular line; machine-wrought irregular mouldings, elliptic and other curves.

As the space which could be allotted to me in so small a building was limited, I was unable to exhibit the following articles also manufactured at my factory, viz:—Machine-wrought 4-panelled double-moulded doors; machine-wrought 6-panelled double-moulded doors; machine-wrought 4-panelled bolection-moulded doors; machine-wrought semicircular-head bolection-moulded glass doors; machine-wrought marginal-light sash-doors; machine-wrought framed and ledged doors, stop-chamfered; door-frames; sash-frames; machine-wrought window-sashes, various sizes; machine-wrought window-casements, various sizes; machine-wrought mantelpieces; machine-wrought table-tops, oval and circular; machine-wrought architraves, single and double faced; machine-wrought ogee mouldings, various; machine-wrought cornice-mouldings; machine-wrought sash-beads and door-mouldings; machine-wrought sunk skirtings; machine-wrought tongued and grooved flooring, planed; machine-wrought planed, tongued, and grooved beaded lining; machine-wrought rusticated and planed weatherboards; machine-wrought planed and moulded feather-edged weatherboards; machine-wrought pickets, planed, pointed, and bored; machine-wrought Venetian-blind laths; sawn plasterers' laths; band-sawn felloes for drays, spring-carts, and carriages; band-sawn shafts for drays, spring-carts, and carriages; turned naves for drays, spring-carts, and carriages; machine-wrought serpentine mouldings; and a great variety of other articles manufactured by wood-working machinery.

The Chairman of the Industrial Commission, Christchurch.

I have, &c.,

F. JENKINS.

By Authority: GEORGE DIDSBUZY, Government Printer, Wellington.—1880.

Price 4s. 9d.]