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The Present Position and Future Prospects of the New Zealand Railways, with a Proposed Entirely New Scheme of Levying Fares and Rates.

Mr. J. P. Maxwell's Report on That Scheme, and a Reply Thereto.

By Samuel Vaile of Auckland.

ALSO EXTRACTS FROM A PAPER,

Read before the Auckland Institute, on the 21st September, 1885, on

"The Influence of the Means of Transit on the Social Condition of the People,"

By Samuel Vaile.

INTRODUCTION.

TO MY FELLOW COLONISTS—

My object in writing this pamphlet is to point out the very unsatisfactory position of everything connected with our railways, and also to try and indicate a remedy for the evil.

It is my intention to print and distribute, at my own expense, an edition of 500 copies of this work.

To do any real good a copy should be sent into the home of every elector. If, therefore, my readers should think it has sufficient merit, I would suggest that committees be formed in the various centres to collect funds and reprint and distribute.

I wish to apologize for the very strong language sometimes used, but as the Minister for Public Works, the Hon. Edward Richardson, and the General Manager of New Zealand Railways, Mr. Joseph Prime Maxwell, have thought proper to loudly accuse me of ignorance, and have not hesitated to resort to the grossest untruth in the endeavour to impose upon the public, and make them believe their assertions, I have been compelled to expose them thoroughly.

If the statements they have made had been made by men of inferior position and education, I should have passed them by with but slight notice; but when men in their position descend to such means, I consider no treatment is too severe.

I would strongly urge upon my fellow colonists the advisability of forming Railway Reform Leagues in the various centres, and of never ceasing to agitate till every district and every individual is placed on a footing of equality as regards the use of our railways, and until everything in the shape of *political rating* is done away with.

I would also urge the absolute necessity that exists for appointing a commission to enquire into the whole question of railway administration. This cannot be delayed much longer.

We must firmly insist that this shall not be a Parliamentary commission, but that it shall be composed mainly, if not altogether, of gentlemen outside Parliament. I have elsewhere in this pamphlet indicated my idea of how it should be composed. I mean no disrespect to Parliament, but Parliamentary commissions are, necessarily, always more or less under the influence of the Ministry of the day.

Mr. Richardson and Mr. Maxwell profess to have examined my proposals; They have never done so. I once spent about twenty minutes with Mr. Maxwell; he neither asked, nor received any information from me, but contended himself with the assertion that the Department alone could form an opinion on the subject. Mr. Richardson also never saw me for more than half an hour; their information must therefore be derived from my letters and newspaper reports, and they have given abundant evidence of their inability to read them intelligently, or that they wilfully misrepresent.

I wish again to direct particular attention to the fact that all I have attempted to deal with is *a question of commercial and financial policy*. In other countries, the manipulation of railway traffic is left to the traffic managers, while the Boards, which are composed mainly of commercial and financial men, settle the rates and fares that are to be charged. This is the only part of the subject I have spoken about, and I think my long commercial training entitles me to do so with some little authority. We have made the mistake of supposing that because the Minister for Public Works was a railway contractor, and the General Manager an engineer, that they therefore must necessarily be able to frame a proper railway tariff of fares and rates.

I gladly avail myself of this opportunity of thanking the press of the colony for the very liberal space they have afforded me, and for their fair, impartial, and kindly criticisms. My thanks are also due to those professional gentlemen who from time to time have carefully examined my proposals and certified to their soundness. I wish also to thank those numerous friends who from all parts of the Colony have sent me valuable information, and to express the hope that they will be good enough to continue their contributions.

SAMUEL VAILE.

THE AVENUE,
Auckland,

February, 1886.

The New Zealand Railways.

THE PRESENT POSITION

Of our railways will be best understood by the following tables. It will be seen that it is such as to require the serious consideration of every man having any interest in this country, and that the utter breakdown of the present system of management is conclusively proved.

In considering the cost of our railways it is necessary to bear in mind that the Department does not appear to know what they have cost. In the Public Works statement and Mr. Maxwell's report for the year ending 31st March, 1883, this is how it is stated:—Money expended according to the Minister in his statement, £10,478,898; Table No. 1, £10,224,450; Return No. 6, £11,409,479. Expenditure and Liabilities—Table No. 1, £10,759,295; Table No. 2, £11,863,576, and appendices H & I, £11,399,909.

Mr. Richardson in his statement for 1885, puts the cost at £11,810,194, or £53,382 *less* than the expenditure and liability on the 31st March, 1883. His figure is arrived at by the very convenient process of cutting out the entire cost of the provincial railways—£1,104,281—See Table No. 2. No interest is reckoned on this amount, but credit is taken for all these lines produce.

An increase of 202 miles in the five years, for an increased expenditure of £3,990,226, or only a few pounds short of £4,000,000.

From this it will be seen that last year we carried 50,492 fewer passengers than we did three years ago.

It is not possible from any information published, to form a correct estimate of the rate of interest we pay for our loans. The late Minister, Mr. W. W. Johnston, twice stated in the House that it was "over 5 per cent." In my calculations I have taken it at $5\frac{1}{4}$ per cent., and Sir J. Vogel in 1870, placed it at $5\frac{1}{2}$ per cent.

Having thus given a brief sketch of their present position, let us now consider

FOR WHAT PURPOSE OUR RAILWAYS WERE AND OUGHT TO BE CONSTRUCTED.

See the opening paragraph of my reply to Mr. Maxwell's report.

The Department has been at infinite pains to convince us, that we are now more cheaply served by rail, than we formerly were by horse and bullock teams. I very much doubt the truth of their assertion, and believe that the amount we pay for interest, would more than cover the cost of carting everything that now goes by rail. But was there ever such an absurd argument heard of before? Have we spent £13,000,000 merely to beat our local teamsters? It appears to me that our object ought to be to carry producers and their products at such rates as will enable them to compete in the great markets of the World, side by side with the producers of America, India, Australia, and Russia.

CHEAP TRANSIT

Lies at the root of all commercial and social prosperity. I believe it might be laid down as an axiom that the commercial and social prosperity of any country, or district, is in exact proportion to its transit facilities.

If it be true that all wealth proceeds from the land, how important is it that we should be able to move its people and products as cheaply, speedily, and easily as possible.

When a man is selecting a piece of land, whether it is required for use as a farm, a factory site, or for residential purposes, the very first question he asks himself is, How much will it cost me to get my people and goods to and from it?

Land without access can have no value; but it will assume a value, and that value will increase, just as its transit facilities are increased.

In a country where the railways belong to the community, charging interest on the cost of the *permanent way*

On ordinary roads, people either provide and work their own rolling stock, or they pay carriers to do so for them. Therefore the Government must charge for the conveying done, such a price as would not only pay interest on the cost of the rolling stock, but also such a profit as carriers generally charge; otherwise those who have to use ordinary roads would be placed at too great a disadvantage. simply means collecting so much taxation. It is as much taxation as collecting tolls on a turnpike road. If you do not expect interest from an ordinary road, why should you do so from the *permanent way* of a railroad. Your railroad is your high road, your macadamised road frequently only a bye one, and clearly if any road should be free it should be the high road, your main line of traffic.

My contention is that the direct payment of interest ought not to be the *first consideration*; but rather the settlement of the country, the development of its resources, and the conveniences of its inhabitants.

Everybody knows the great

IMPULSE GIVEN TO TRADE

and commerce by the introduction of steam power. Why was this? Simply because steam gave us greater facilities for working machinery and for the transportation of heavy weights; thus lessening the cost of production, and placing the power to purchase and travel within the reach of vast numbers who were unable to do either before. It therefore appears to me to be certain that if we greatly reduce our transit charges; we should at once reduce the cost of production, secure an increased number of buyers, and thus immediately bring about increased prosperity.

One reason why cheap transit would lessen the cost of production is that it would enable

LABOUR TO MOVE

whither it may be wanted, and when it may be required. This is a most important matter. If labour could move to and fro as cheaply and freely as it should do, we should hear nothing of the unemployed, while the users of labour would be greatly benefitted *without i educing the workman's wage*.

What we want is cheap and easy transit, with a simple tariff that every one can understand. Such a system as will encourage settlement and lead to the occupation of the country. I contend that this can be brought about by adopting the following

NEW SYSTEM OF LEVYING FARES AND FREIGHTS.

Passenger Fares.

I propose to abolish the mileage system altogether, and to substitute instead a series of ticket stations. The first four, starting from any capital town, to be placed as nearly as possible at distances of seven miles apart, and then at intervals of fifty miles all along the lines. When any inland town on the line has a population of, say 2,000, I would place a ticket station seven miles from it on either side, and when the population reached 4,000, another station on each side, and when 6,000, treat it as a capital town.

My idea is thus in time to place the whole country on an equality, but in the meantime to help the sparsely populated districts, and when the country becomes thickly settled, then to reduce the price of the stages, say to 5d. and 3d. or less. We cannot possibly make transit too cheap.

I propose to charge uniform fares from ticket station to ticket station, or for any intermediate distance of 6d. for first and 4d. for second-class passengers.

Parcels Freight.

I suggest having four classes only, of 14, 28, 56, and 112lbs., for which the charges should be respectively 1d., 2d., 3d., 4d., and 6d., from ticket station to ticket station. Parcels should be deemed to include every kind of merchandise and produce capable of being packed as a parcel.

Goods Freight.

For the present, I suggest the following scale of charges, but in the hope and belief that, in a very short time, a much greater reduction would be practicable. Trucks for horses, cattle, sheep, calves, pigs, goats, hay, straw, agricultural produce of all kinds, and firewood, 4s. per truck. Minerals, bricks, clay, sand, and coal, is. per ton; anything under three tons to be charged as merchandise. Timber per 100 feet, or fraction of 100 feet,

3d. Every other class of merchandise, 2s. 6d. per ton. Anything under half a ton, to be charged at parcel rates. All fares to be from ticket station to ticket station, or for any intermediate distances the same charges.

With reference to goods freight, I wish to say that the above scale is only a suggestion. There are no statistics published on which I can found a reliable estimate; I am, however, certain of this, that goods freights could with great advantage be reduced by what would be equal to fully one-third all round.

Tickets.

Railway tickets as at present used should be totally abolished, and railway stamps issued instead. All freight, as well as passenger fares, should be paid in stamps only. These stamps should be sold by all stamp vendors, as well as at every railway station. No return or excursion tickets should be issued.

Insurance.

In consideration of the low rates charged, the Government ought to be relieved from all responsibility as carriers; but I think that an insurance department should be started in connection with the railways, where, by payment of a small fee, the Government would insure life, limb, or the safe delivery of goods. This would help the revenue, and also put the expense on the right shoulders. It is not fair that the general public should pay for covering the risks of those who use the railways.

Advertisements.

Government should cause advertising panels of various sizes to be fixed at all the stations, and should charge a fixed rate for their use, by the month, quarter, or year, or they might be let annually by auction.

This system will be better understood by consulting the accompanying table of fares and rates.

Such is the outline of the scheme I propose. All the details require filling in, and on the skill with which that is done, much of its success would depend. I will, however, undertake to furnish them should they be required.

As in the present circumstances of the country, it is not desirable to add to the existing burden of taxation; it remains for me to show that the proposed system *will directly pay* a better rate of interest than the one now in use. First I give

The Opinion of Experts.

Auckland,

October 9, 1884.

MEMORANDUM FOR SAMUEL VAIL, ESQ., AUCKLAND.

With reference to the several discussions we have had with you upon the advisability of introducing throughout the New Zealand Railways, the low fares that you have publicly advocated, we beg to state that after full and deep consideration we are prepared to agree with you in respect of the following:—

That the increase in the number of passenger fares taken would be three times as many as at present, or an increase of two hundred per cent, upon the present issue.

That the average fare could not sink below one shilling.

That the increased passenger traffic would not perceptibly increase the working expenses.

RIDLEY WILLIAM MOODY,
T. D. EDMONDS,
JAS. STODART.

What this memorandum means is this—that the result of reducing the fares to the low rates proposed, would be an increase in the railway revenue of from £200,000 to £250,000 from passenger fares. The following figures supply the basis of this calculation.

The amount received under the heading "Passengers, etc.," for the year ending 31st March, 1884, was £371,521. This includes the amount received for season tickets, parcels, horses, carriages, and dogs. We shall be safe in deducting £80,000, as received from these sources, which would leave for ordinary fares only £291,521, an average of 1s. 9¾ per fare.

According to a table published, after this was written and published, the average appears to be is. 11½d.

The number of fares taken during the past year was 3,272,644, this multiplied by 3 gives 9,817,932, which at one shilling each yields £490,869, a clear gain to the revenue of £199,375 from passenger fares only. But as the revenue from parcels, dogs, horses, and carriages must also largely increase, I estimate that the increase of revenue from "coaching" (or "passengers, etc.") would be at least a quarter of a million per annum (£250,000).

The indirect benefits that would result from the introduction of such a system upon our railways are beyond calculation, it is simply impossible to estimate them.

I desire to call attention to the thoroughly efficient and impartial nature of the report given by Messrs. Moody, Edmonds, and Stodart. Messrs. Moody and Stodart are probably the most experienced railway men in the colony, while Mr. Edmonds, although a young man, has been trained on railways from his boyhood.

None of these gentlemen are now in any way connected with the management of any railway, and are therefore perfectly free to give an unbiassed opinion.

In addition to a large colonial experience, Mr. Moody has had 17 years' experience on the Great Northern and other principal English railways. Mr. Edmonds was trained on the Great Western line, and after his arrival in this colony has held the important post of chief clerk on the Hurunui-Bluff system, which post he resigned some time ago. This is the gentleman who, under the *nom de plume* of "Practical," wrote several letters in opposition to me. Mr. Stodart was for 21 years on the Great Western line, four years on the London, Chatham, and Dover line, and five years on the Bombay and Baroda and Central Indian line, holding important positions on all of them.

While these gentlemen were kindly writing their memorandum in the North, Mr. William Conyers, late General Manager of New Zealand Railways, was corresponding with me from the far South. From a long and interesting letter written by this gentleman, I make the following extract—"I agree with Messrs. Moody, Stodart, and Edmonds in their report on your system, and you may use my name to that effect. In answer to your first query, I am of opinion that the number of passenger fares would be three times the present number—that is, an increase of 200 per cent. (*I wrote you this before, never having seen their report at the time.*) 2. The average fares, which are now (including season tickets, and probably parcels, dogs, etc., only 2s. 3d., could not sink below is. 3. Three passengers could be carried as cheaply as one." Thus it will be seen I have the support of the most experienced men in the colony, and that they agree with me in saying that the least result from lowering the fares as I propose would be a net increase of the railway revenue of £200,000 per annum.

Since these gentlemen signed the above statements, many other "railway men" have examined my plans and have expressed their entire approval and their conviction that they must succeed.

I invite special attention to the fact that no professional man, having the least pretention to hold a position as a "railway expert," has ever attempted to show that I am wrong, while many of them assert that I am right.

I believe I am right in stating that the present Minister for Public Works, the Hon. E. Richardson's only claim to pose as a "railway man" consists in the fact that he was the junior partner in the contracting firm that constructed the Lyttelton-Christchurch tunnel. This, I understand, was the only railway work he was ever employed on until he was made Minister for Public Works for New Zealand. Mr. J. P. Maxwell was, as I have elsewhere stated, simply a clerk in an Engineer's office.

The question whether passengers can be profitably carried at the rates I propose is simply a matter of figures, which anyone can prove for themselves. The following is the right way of

ESTIMATING THE COST AND PROBABLE RESULTS

of carrying passengers.

The average cost of hauling a train one mile in New Zealand, was in 1884-5, 4s. 9½ I believe there is no other country in the world, possessing 1,477 miles of railway, where the cost is so high.

A load of 80 tons, including the weight of rolling stock, would be only a very small train; it would, however, carry 300 passengers, and the cost of running it for 100 miles, would, at the present high average, be £23 19s. 2d.

My lowest proposed *through fare* for the 100 miles average of the two classes is 2s. 6d.; I, however, calculate that the station to station work will at least double this amount, and that each seat in a carriage will give an average product for every 100 miles of at least 5s.,—thus 300 seats would yield £75; but if we could only get the train two-thirds full, the yield would be only £50; if only half full, £37 10s.; which would still leave a profit of £13 10s. 10d. or over 56 per cent, on the working expenses; if only one-third full, £25, or a profit of £1 os. 10d.; and if but one-quarter full, 15s., or a loss of only £5 4s. 2d., instead of the £10 6s. 2d. we now lose. In the face of facts like these, I cannot see how the country could make a loss by accepting my proposals. There appears to be no possibility of direct loss, while the indirect gains must be enormous.

If in 1884-5 fares been reckoned as I propose, and if the seats occupied had only averaged 150 per 100 train

miles, and each seat had earned but 3s. 6d. instead of the 5s. mentioned above, the result would have worked out as follows:—

In 1884-5, the number of ordinary fares averaged 126, and the gross earnings from passengers £13 13s. per 100 train miles. It is worth while reflecting on the astounding fact that throughout the the year, so far as ordinary passengers were concerned, we, *on an average, ran a whole train four (4) miles to carry five (5) fares.*

I think this is conclusive evidence that we could carry 10 fares for one we carry now, without extra charge, for practically the trains run empty.

The thing seems incredible, but it is true nevertheless.

For further proofs that passengers can be profitably carried at the proposed rates, I refer my readers to my reply to Mr. Maxwell's report, paragraph 29

It may be well, however, to briefly recapitulate them here.

Mr. Maxwell's assertion is that "passengers could not be profitably carried for such long distances at such low fares."

In reply to this, I have selected for purposes of comparison the longest distance possible—from Waikare to the Bluff—436 miles. The present fares are first-class, £4 10s. 11d.; second-class, £3 os. 9d. Proposed fares, 18s. 6d. and 12s. 8d. respectively; average of the proposed fares, 15s. 7d.

In America, passengers are daily carried the same distance for 18s. 2d.

In India, nearly the whole passenger trade of the country is done at the rate of 9s. 6d. for 436 miles.

On the London Metropolitan, people are daily carried 16 miles for 2d., which equals 436 miles for 4s. 6½

On the Caledonian Railway, goods are carried at rates, which at weight for weight, irrespective of the weight of rolling stock, equal carrying a man 120 miles for one penny.

On our own New Zealand Railways, to carry 20 tons of passengers at the proposed fares, after making the most liberal allowance for the extra weight of rolling stock required, would yield £90 3s. more than 20 tons of the highest class of goods—class A.

Thus it is clear, either that passengers can be profitably carried on our railways at far lower rates than I propose, or that the highest class of goods traffic does not pay.

The rate charged for carrying goods of class A 100 miles is 49s. 4d., or within a very small fraction of 6d. per ton per mile; for 436 miles it would average 3d. per ton per mile. If this rate will not pay I should like to know what will.

In all the above examples, I have based the calculation on my *average through fare only*; and have taken no credit for the station to station work, which would certainly add from 30 to 50 per cent, to the return, and which would be all additional net profit.

When the Department assert that passengers cannot be carried at my fares without loss, they give the most convincing proof that they have never studied the subject

In carrying through the above argument, it will be seen that I have never based any calculation on the assumption that more than three fares would be taken where one is taken now, but I am certain that the inducement offered is so great that in a very short time they would be increased tenfold; this with the enormous expansion of general traffic that must follow would give us at least *another million per annum of net railway revenue*. It would not surprise me in the least to see this result attained in less than two years.

I am aware that this statement appears extravagant and ridiculous, but let it be borne in mind that all we require is two fares, for one we get now, in order to obtain a gain on the present result, consequently every additional fare up to at least seven fares, would be all net profit, for, if we had this number we could separate our passenger from our goods traffic, which would enable us to carry the seven for less than the one costs now.

The wear and tear on a railway, is in proportion to the velocity at which weights are carried. The minimum of wear and tear comes in at about 6 miles per hour, and it increases rapidly as you increase the weight and speed. We run nearly all our trains "mixed," passengers and goods together. Thus we are carrying our heaviest weights at our highest velocities, and hence the great destruction of our lines and rolling stock. If we had seven times as many passengers, we could separate and carry them—the light weights at the high velocities; and the goods—the heavy weights—at low velocities, and thus carry seven fares at less cost than we can now carry one.

I wish to direct special attention to an essential feature in my plan; I refer to the system of reckoning fares by

STAGES INSTEAD OF MILEAGE

and to point out the better financial result obtainable by the stage system. The present first-class fare from Auckland to Te Awamutu, is 20s. 10d. This is the utmost any seat can earn, no matter if it is occupied by the same passenger throughout, or by a succession of passengers, indeed, if a man broke his journey at Penrose and took a fresh ticket, he would save threepence by the transaction.

On my system, the through first-class fare, Auckland to Te Awamutu, would be 3s. only, and if a seat were occupied by a through passenger that is all it could earn, but as I have no first-class fare under 6d. and as there are 34 stations on the line, it follows that by a succession of passengers from station to station, each seat could earn 17s. or five and two-thirds as much as the through fare. Thus it will be seen that while the stage system gives great advantages to individual travellers, it also gives good financial results. It will also be seen, that while my through fares may appear absurdly low, I by no means rely on them only, which *under the present system they are compelled to do.*

It has often been objected that my proposals are too sweeping, the

REDUCTIONS TOO EXTREME,

and I have many times been told, that if I would be content to advocate an all-round reduction to one-half of the present fares and rates, that I should have the whole country with me. My reply has always been, Very likely, but such a reduction would only mean financial ruin, and it would not attain the commercial and social ends we ought to have in view.

No reform in the system of managing our railways, can be successful that does not bring their beneficial use within the reach of every class of the community, and a reduction of fares to one-half would never do that. No labouring man out of employment can afford to pay 7s.

Half the present fare.

to travel 100 miles in search of work, maintain himself for a day or two, and pay 7s. to return, if unsuccessful. To a poor man there is a vast difference between 4s. and 14s. Besides, I have clearly proved that the work can be done well at the prices proposed, therefore, why should we be content with half a loaf when we can have a whole one? What we want is a *startling reformation at once, something that will arrest attention and popularise the use of the railways.*

The lower we can bring our transit charges down, the greater will be our commercial prosperity, the greater our social happiness. Nothing would lead so directly, and immediately to a great expansion of our trade, both local and export, as cutting down transit charges to their lowest possible limit.

Many people have objected to my plan on the ground that, in their opinion, we have

NOT SUFFICIENT POPULATION

to enable us to carry out such a scheme successfully. This is a natural objection to raise, but it will no more stand looking into than the objection replied to above. It is not so much a question of the number of our population, as it is of providing facilities for shifting the people we may happen to have.

See my reply to Mr. Maxwell, paragraph 31; also appendix.

The whole history of traffic shews that it is simply a question of providing facilities, and that the number of journeys a passenger will make is simply limited by the cheapness, speed, and comfort with which you will convey him. A few examples will prove the truth of this assertion.

Prior to the starting of the Auckland City Tramways, there were but five small omnibuses on the Western Circuit. The tram-cars now carry 16,000 to 19,000 fares per week. This circuit serves only City West and parts of Newton, Ponsonby, Archhill, and Karangahape. The entire population of these districts in 1881 was 20,282. If we add 20 per cent., for increase, it gives us 24,338. Thus it will be seen that the tramcars are doing a trade equal to shifting the entire population over 36 times during the year, or over three times every month.

I presume the Tramway Company did not import these people to trot up and down in their cars. They were here before, and wanted to travel, but had not the facilities, in the shape of cheap fares. Similar results would certainly follow on our railways if fares were reduced as I propose. In England the railways do a passenger-carrying trade which is equal to shifting the entire population of the United Kingdom over nineteen times during the year. Ordinary fares in England are little, if any, cheaper than ours.' With fares such as I propose, they would have to carry them at least fifty times, and would speedily require to duplicate all their lines.

When our North Shore ferry boats charged 9d. for a return ticket, they did a very small trade, and that district made but slow progress; when they reduced the return fare to 6d. the trade at once increased enormously, and the North Shore went ahead by "leaps and bounds."

Everybody who has resided in the old country will remember what has resulted there from the reduction of fares, and the improvement of third-class carriages.

I will only give an instance which occurred before the improvements mentioned were made.

In 1862 the fares charged from Victoria to the Elephant and Castle were 3d., 4d., and 6d., for third, second, and first classes respectively. It was a common occurrence for the trains to run with only two or three

passengers per train. The then station superintendent—who is now in Auckland—suggested to the directors that they should reduce the fares to one penny for third, and twopence for either first or second class. They did so, and within a week the trains were crowded to excess. This was not the result of better accommodation, but simply reduction in price.

Many more examples could be given, but these should be sufficient.

There are numbers of young people who have been born and brought up within from 30 to 100 miles of this city who have never seen it, and who think of Auckland in much the same manner that the country yokel of fifty years ago regarded London. If fares were as I propose, would this happen? Would not people, instead of travelling alone as they do now on account of the expense, take one or more members of their families with them.

If the fares for 15 miles round all our large centres were 1s. first and 8d. second class, would not vast numbers of people use the rails, for purposes of pleasure, who never think of such a thing now? Who ever thinks of using the rails for the purpose of spending the Saturday half-holiday? But would not thousands do so if the fares were as proposed? And how many would leave the town for the country, or the country for the town, from Saturday to Monday, for one that does so now. There need be no fear about the population; we have enough to do all we require more than three times over.

Many people have said to me:—"If the advantages of your plan are so great, and so clear, how is it that the Department does not at once adopt it?" I reply by asking:—"Did anyone ever know of a Government Department adopting any reform before they were absolutely driven to it?" And in this instance there are special reasons why they oppose reform.

The favourite plan of the present Minister is to create

RAILWAY BOARDS,

or to appoint a number of railway commissioners. This means creating not less than from six to nine highly-paid billets, which, of course, certain gentlemen in the Department would expect to occupy. No gentlemen know better than Messrs. Richardson and Maxwell that, under the proposed system, there would be no need of these officers. It would, in fact, kill the "railway expert"—that is, the "expert" whose business it is to rob Peter to pay Paul, in order that the lines as a whole may pay. This process will be more fully explained under the heading, "Differential rating." When men feel their occupation sliding from under them, it is but natural that they should resist the innovation to the utmost; and who shall blame them?

When non-political railway boards were first spoken of, I, in common with others, was taken with the idea; but a very little investigation soon proved the whole thing an absurdity, and that they never could have been proposed with any other view than to create offices. How can there be such a thing as non-political boards when the property they are to control belongs to the Government, and they must, in some form or other, account to the Government for what they do? The proposition is a farce— simply an attempt to hoodwink the public. It would, no doubt, be convenient to the Government to have such a buffer, for they would practically retain all the power and patronage; while they would shunt every complaint and all the failures on to the "non-political" boards.

We ought strenuously to oppose the creation of these boards or commissioners until we have first settled

THE BROAD LINES

on which our railways are to be managed; until we have decided whether we are to continue to use them, as *they are being used now, for the aggrandisement of particular district's and particular people*, or whether they are to be used for the equal benefit of every district and every class. If we once allow the appointment of these officers before settling this question, we may make sure that the present system, with all its flagrant evils and inequalities, will be fastened upon us for many years to come.

Another objection that has been urged, is the assertion that my plan would

MAKE THE TOWNS PAY

for the country districts. I assert that the towns pay now, and that they will continue to pay in an increasing ratio so long as the present system lasts. That the towns pay now is proved by the fact that the average distance travelled is under 11 miles.

It should be borne in mind that the concessions proposed to be given to the country are only temporary, and that as settlement takes place, they will gradually come into the same position as the districts round the capital towns. One thing is quite certain, if we are to prosper we must do something to help the country districts. What is the use of placing small settlers along the North Trunk Line under existing circumstances? If they are not

provided with cheaper and better means of getting their produce to market, they will all be starved out within a year. Small settlers cannot be graziers; they must be dairymen or cropraisers. This class of produce cannot now be sent 100 miles. What would be the fate of men who had to send it 150 or 200 miles? Suppose one of these unfortunates, 150 miles off, had a ton of potatoes to send in. If sent direct to Auckland the charge would be either 34s. 5d. or 37s. 4d., but if sent to a station three miles south of Auckland, it would be either 32s. 4d. or 41s. 10d. at the option of the Department. Everybody knows that potatoes are frequently sold in Auckland at less than these prices. I believe that every article these men could raise can be bought in Auckland for less than the present transit charges.

It is now proposed to borrow another

£8,000,000 or £10,000,000

to extend railway construction into the interior of the country. I venture to assert that not only would every copper of interest be lost, but that we should also have to resort to a large amount of extra taxation in order to pay working expenses, *if the present system of management is to be continued*. How can these extensions pay when the distant portions of the present lines lose so heavily.

I am, however, equally certain that it is quite possible, indeed an easy matter, so to manage our railways that we could, if we thought proper, borrow and expend another £10,000,000 without adding a single penny to the existing burden of taxation, or that we could appropriate £500,000 per annum towards further construction out of the revenue of existing railways.

There appears to me to be something absolutely absurd in the idea of investing £13,000,000 in a commercial concern, and receiving as a result at the very outside $2\frac{3}{4}$ per cent. on the outlay; and that miserable $2\frac{3}{4}$ wrung out of the country by the most oppressive extortion, and unjust and vexatious regulations.

If an insurance and depreciation or renewal account was kept, as it certainly ought to be, not only would this per cent. all disappear, but a portion of the working expenses would have to be provided for out of the general taxation. I very much doubt, if in the whole annals of British commercial enterprise, we could find a more pronounced and contemptible failure than that of the present managers of the New Zealand railways.

What possible use can there be in investing more money in such a concern? Who would be benefitted by it? *Simply those who have the squandering to do.*

That our railways have failed to meet the requirements of the country is manifest from the intense dissatisfaction that notoriously exists from one end of the colony to the other. It will be time enough to expend another ten or twelve millions when we have found out how to utilise the amount already invested.

For the present unsatisfactory position of our railways no men are so largely responsible as the Hon. Edward Richardson and Mr. Joseph Prime Maxwell. They have held supreme power longer than any other men; they have held this power in the most prosperous times of the colony; they both claim to be "railway experts" of a very high order, and yet the result of their administration has been to land us in a very slough of financial difficulty, instead of launching us on the sea of prosperity that was predicted in 1870.

If the financial loss had been brought about by serving the country too cheaply, something might be said in their favour, for then we should have had a large indirect advantage somewhere; as it is we have no direct advantage, but we certainly have an immense indirect crushing, as the following table will show:—

To the above excessive rates must be added, for "Terminal Charges—

The rates quoted above are those for the most highly-favoured districts. In Auckland and throughout the North and some parts of the South Island, many of the rates are 25 per cent, and more higher than those given above.

I again repeat my assertion, that it is the management alone that is to blame for the state we are in. We have a grand country, a splendid climate, enormous undeveloped resources, energetic people, plenty of capital; and yet the whole progress of the Colony is barred because we allow men like Mr. Richardson and Mr. Maxwell to *rule our roads and therefore rule our commerce.*

For a convincing proof of the utter incapacity of these men to deal efficiently with the important Department they preside over, I have only to refer my readers to paragraph 31 of Mr. Maxwell's report. How they could pen, pass, and lay it on the table of the House I cannot imagine. For an exhibition of downright commercial imbecility I have never seen it equalled—a greengrocer's apprentice might well be ashamed of it.

It is important to bear in mind what these gentlemen have done for us, as it is well known they expect to be appointed "RAILWAY COMMISSIONERS" under the Bill they hope to get passed during the coming session of Parliament.

They cannot claim want of power to act for the best, for legally, or illegally—as I believe, and further on shall endeavour to prove, they have exercised supreme power and have done exactly as they pleased; therefore, no one but themselves is responsible for the universally acknowledged failure.

THE GREAT BAR TO THE RAPID SETTLEMENT OF THE COUNTRY

And the location of settlers in the interior of the colony is the high cost of transit, the vexatious regulations, and the uncertainty that surrounds everything pertaining to our railways. What man, having ordinary common sense, would take up land, say 120 miles from any of the capital towns, knowing that a "differential rate" may be imposed against him any day as the whim or interests of the manipulators of the railways may dictate. Every land agent, in the Auckland district at all events, knows that under such a system as I propose, it would be easy to locate at least four settlers for one that is located now.

Let me just give one instance of how the present high charges stop settlement and trade. The Rotorua Railway is to be opened as far as Lichfield in March next. Immediately round this new town there are extensive quarries of good building stone, an article Auckland is badly in want of. Hundreds of men could at once find employment at quarrying and dressing this stone if it could be sold in Auckland at is. 6d. per foot, but the present transit charge would be 10d. per foot, leaving only 8d. for cost of production and profit. I contend that 5d. per foot would more than pay for the transit, and at this rate a good trade could be done. If such an industry were located, as this would be, over 140 miles in the interior, how much it would help to settle that district, and build up a trade for the railway. I shall be told to apply to the Department for a special "differential rate" in favour of this industry. Yes! They would most likely grant it, and when thousands of pounds had been invested and the industry in full swing, thinking they saw a good chance of "making the railway pay," they would again raise the rates and the whole concern would be ruined. People at this end of New Zealand know too much to trust their capital to such a chance. It is this want of fixedness, that is one of the great curses of

THE DIFFERENTIAL RATING SYSTEM.

For a description of the social evils brought about by this iniquitous system, I must refer to the Appendix. When denouncing it, I hope I shall not be mistaken, and that my readers will be good enough to remember that it is the system, and not the men who administer it, that I find fault with. They are only carrying out a plan that has been arranged for them, and for which they are in no way responsible.

I gladly avail myself of this opportunity of repeating what I have often said before: That if the men on the New Zealand lines were not far above the average, both in intelligence and integrity, they could render the existence of users of the railway unbearable, so numerous are the openings for fraud and annoyance.

In dealing with this method of trading, or rather of legalised plunder and robbery, I shall offer no apology for using very plain and forcible language; indeed, I am certain that the Anglo-Saxon tongue does not furnish words sufficiently strong for the purpose.

If the whole history of commerce, from the earliest times, was searched with the minutest care, I do not believe it would be possible to find in its darkest records anything to equal the differential rating system for unmitigated dishonesty. How it could have come into almost universal use I cannot imagine, and still more do I wonder that our great writers have failed to notice, and point out the enormous influence for evil it must have on commercial and social affairs.

Like every other evil thing, to be successful it must be worked in secret, and in England and America where it is in full swing, the greatest possible care is taken to conceal the rates. The Legislature has passed numerous Acts to protect the public, but without avail. English law states clearly and distinctly that all rates must be published, and that every man has a right to know what he has to pay, and why he has to pay.

In order to evade these Acts the Companies complicate the rates to the utmost, and to such an extent is this carried, that Sir Edward Watkin—the greatest railway authority in England—stated to the Royal Commission of 1881 that there were upwards of 10,000,000 (ten million) different rates in existence on the Great Northern railway alone. Thus it will be seen that although the rates may be published, no ordinary man could read them, and so the Companies can charge just as they please.

In discussing this question of differential rating, we must remember that a great distinction is to be drawn between railways owned by private companies and railways owned by the community. In the one case a few individual investors own them, and therefore if they keep within the limits of the concessions granted by Parliament, they have the legal, if not the moral right, to regulate their charges as they please.

The case is very different where the railways are the property of the whole community. Then every individual has an absolute right to be placed on a perfect equality with his neighbour.

I do not know by whose authority this vile system has been introduced on our railways, but I am quite certain that the Legislature never contemplated that an Auckland man should be charged 15s. 8d. for the same service that a Christchurch man gets rendered for 8s.; or that, "for the purpose of computing freight," 31 miles

in Canterbury should be "deemed" to be only 15 miles, while the full, or more than the full, distance is charged for in every other district.

I know that I shall be told that the country round Christ-church is flat, and that, therefore, haulage is cheaper. The same argument would apply to the Waikato delta, the Thames Valley, and numerous other districts all over the colony. Is our sense of right so blunted? Are our views so limited that we cannot see we are doing a grievous wrong, as well as a most foolish act, in allowing this state of things to exist? Surely, if any difference is made, it should be in favour of men who have had the courage, the energy, and the perseverance to face the numerous difficulties attendant upon founding a settlement, say, like Taranaki. Why should these men have extra taxation imposed upon them in order to give the benefit to men who have had no difficulties whatever to contend with?

SECRESY IS ESSENTIAL

To carrying out this system effectively; secrecy, as I have before said, can only be secured by so confusing and complicating the rates and charges that nobody can understand them.

During Mr. Richardson's term of office he has added at least 50 per cent to the complication, and a reference to his Public Works Statement will show that he prides himself on the performance.

That it is the wish and intention of the Department to bring about this state of things here as speedily and completely as possible, let Mr. Maxwell's own words testify. This is what he says in his report for 1884:—

"The system of rating differentially in this Colony is not carried far enough, and the difficulty which stands in the way is the impatience of the public to submit to different treatment in different cases, and the reluctance to place in the hands of the railway officers the power that would be necessary for carrying out the principle extensively. Whilst retaining publicity by gazetting each rate, were such a principle more widely introduced, *the public would not be able to do what it now to some extent essays to do—read and interpret the rates generally; but the practice followed elsewhere would be necessary—the customer would appear to the station each time he waited a rate quoted; and whether the railways were managed by a Minister or Board, more power and freedom in respect to rating would have to be placed in the officers' hands. The sensitiveness of the public then, is the chief difficulty; but this is not allowed to intervene in cases where many millions of revenue are concerned, and can be no doubt overcome here by patience and time, provided that the Colony recognises that the principle is desirable, and gives the necessary power to administer it. Maximum rates might be fixed by law, and a suitable Court of Appeal be constituted to prevent abuses of the powers given.*"

Imagine what would be the effect of giving power like this to a man of Mr. Maxwell's stamp, who does not hesitate to tell users of the railways that it is his business to take the utmost advantage he can of their necessities. The Colony has not "recognised" that the differential rating principle is desirable, nor has it given the power to enforce it, but the Department has seized the power, and they now favour one district and oppress another, just as they please. To prove the truth of this assertion, I will give a few examples.

A farmer living at Southbridge, in Canterbury, 31 miles from Christchurch, could have 1½ cwt. of butter delivered in that city for is. An Auckland man, for the same service rendered, would have to pay 3s. 6d., and an Otago man 2s.

The Southbridge farmer could send 3 cwt. of "loose" bacon the 31 miles for is. 10d. The Auckland man must pay 4s. 11d., and the Otago man 3s. 5d.

A ton of cheese, packed, can be sent the 31 miles in Canterbury for 8s. 6d. In Auckland the charge would be 16s. 7d., in Otago 16 s.

It is easy to understand how it is that Canterbury dairy produce floods all the centres of population in New Zealand.

I trust my Canterbury friends will not think that I seek to deprive them of any of these advantages. I only seek to secure greater ones for every part of the Colony.

The charge for carrying a ton of goods of class A for a distance of twenty-one (21) miles in the various districts of the Colony is as follows:—

On what principle can charges like these be justified? Why should an Auckland or Wellington man pay double, or more than double, the charge to a Christchurch man? The department says that where there is a large quantity of work to do, they ought to charge a less price; then, why are four of the larger centres charged more than three of the smaller ones? The fact is, justice or right principle is never considered in the slightest degree. The only question asked is, What district will stand most plundering quietly? Let me try and describe how the

RAILWAY RATING EXPERT

sets about his work.

To start with, the only object he has in view is to make money. What may be the ultimate results to the commercial and social interests of the community is nothing to him. That does not trouble him for one moment—his sole idea is how to make the best return during his term of office. The question is, How is it to be done? He finds certain rates fixed, some legal, some illegal; that does not matter much. After careful study, he comes to the conclusion that by reducing the rate on a certain article, say flour, he can do some trade he is not at present doing, but he will have to do it at a rate that will perhaps only pay a portion of the working expenses; however, for various reasons, it may be better than having rolling-stock idle. He now has to find out an article that will not only pay its own profit, but also the profit flour should have paid. He fastens, say, on hardware, and puts the rates up as high as possible. He keeps the strain on hardware as long as it will bear it. It is his business not to push things too far, but to ease off the strain in time, and put it on some other article, say crockery, and squeeze that to the utmost. Or he will perhaps pit one town or district against another—as is done now in New Zealand—fixing the rates in favour of one town and against another; and so he goes on, taking a little off here, and putting as much as possible on there, and ringing the changes as often as it is necessary to keep people quiet.

It will be seen at once that to work this system effectively it takes a man of great skill, and those who are really clever at it can always command very large salaries. It is, therefore, no wonder that they do not desire to see a system adopted that everyone can understand.

We have all heard a good deal about political railways, but prior to the commencement of the present agitation few, if any, were aware that we had

POLITICAL RATING

as well

Having lectured in all the chief towns of the Colony, and conversed with their principal men, I am able to state that I found an almost universal belief that the rates throughout New Zealand were uniform. This will show how difficult people find it even now to read them.

In another year or two, if the present system is allowed to continue, Mr. Maxwell will have attained his end; every one will have to go to "the station to inquire what his rate is." The authorities will be able to charge what they please, and so serve their political or personal friends, or crush their enemies; in fact, they could ruin any district, or any man, at their pleasure.

If this state of things is to continue and grow, what is to prevent something like the following being a matter of daily occurrence:—

Customer at Auckland Station: "I want to send 10 tons of potatoes to Hamilton; what's the rates?" Officer: "us. 3d. per ton.; but where do they come from?" Customer: "Just landed from Canterbury." Officer: "Oh! in that case the rate will be only 5s. per ton." Supposing such things to be done, who could detect them? if, as Mr. Maxwell desires, there were no published or readable rates.

If you hand over the control of the roads of a country to any set of men, you must of necessity hand over with them the control of the a mm tree of the country.

Mr. Maxwell suggests fixing maximum rates and appointing a Court of Appeal. Does anybody imagine that we in New Zealand can do what the British Parliament has failed to effect? That body has passed thousands of Acts to attempt to control the Companies, but in spite of all they daily charge from 300 to 1000 percent, above their legal rates.

See the evidence of Professor Hunter and others, given before the British Royal Commission of 1881. It is stated on reliable authority that between five and six thousand Acts relating to railway matters have been passed by the British Parliament.

A Court of Appeal indeed! Who would be mad enough to bring an action against the Government to recover an overcharge of £5, or even £50? He would simply be ruined in the attempt, and would rather stand the loss than try it.

OUR ONLY SAFETY

Lies in adopting at once some cheap and simple system that everyone can understand, and one by which *every district and every man placea under similar circumstances, shall be treated alike*. If we do not insist on this the day is not far distant when nine-tenths of the people of this colony will bitterly me their folly. The differential rating system is simply a system of

UNMIXED SCOUNDRELISM,

and we ought to exert ourselves to the utmost to get rid of it.

I am very far from saying that the system I propose is the best that can be devised to take its place, but merely that it is the best I can offer, and is the result of very careful study. All I have ever asked is, that its merits and demerits should be inquired into by a competent and impartial commission. When Mr. Richardson led the House to believe that I had asked him "to give it a trial" he stated that which he must have known to be untrue. I did not even ask him for an inquiry, for I felt that I was talking to a prejudiced, incompetent man.

Not only has Mr. Richardson descended to untruth himself, but he has ordered his subordinate to prepare, and he has laid on the table of the House, as an authoritative Government document, a paper which is nothing but a tissue of untruths and misrepresentation throughout. It even contains many gross untruths, as the statement that reductions from 9d. to 6d., from 1s. to 6d., from 1s. 6d. to 1s., from 3s. 9d. to 1s., *are not reductions at all, but are a "heavy increase."*

I think that when a private citizen undertakes, without fee or reward, the vast labour and great expense of investigating a subject of this nature, he has at least a right to expect that Ministers will deal fairly, truthfully, and honourably by him.

My language may appear rough; I am fully conscious that it is so; but when a man in the position of a Crown Minister, in his place in Parliament, resorts to direct untruth in order to stifle inquiry into a matter of great public moment, I consider he places himself outside the pale, and that I am quite justified in denouncing him.

The object of Mr. Richardson and Mr. Maxwell in presenting these false statements to the House was to discredit my work by creating an impression that I did not know what I wanted, and was ignorant of my subject, and thus justify themselves in refusing the prayer of the

RAILWAY REFORM LEAGUE'S PETITION.

This petition was signed by over 50 representative bodies, and over 7,000 citizens. The leading papers of the Colony have also advocated an enquiry.

When Mr. Richardson told the House that he had intended to refer this petition to a select (no doubt he meant selected) Committee, I believe he spoke truthfully; nothing would have suited him better than to have referred it to men who would have done what the Public Petitions Committee has done, referred it back to him for consideration, or as unworthy of consideration. When, however, Mr. Richardson found that the petition asked that the Commission might consist of Commissioners appointed by each of the Chambers of Commerce in New Zealand, as well as the Minister of Public Works, and the General Manager of the New Zealand Railways, he at once saw he would have little or no influence with it, and took his measures accordingly.

Sooner or later a Commission to enquire into railway matters must be appointed, and I would earnestly impress upon my fellow colonists the necessity of seeing that it is so composed as to be free from political influence. For this purpose a Parliamentary Commission will not do. I mean no disrespect to Parliament, but all such Commissions must be more or less under political influence and pressure.

As the question to be settled is

A COMMERCIAL AND FINANCIAL ONE,

I would suggest that it—the commission—should consist of the Minister for Public Works, the Under-Secretary for Public Works, the General Manager of the New Zealand Railways, and one Commissioner to be appointed by each Chamber of Commerce in the Colony, but in districts where there are Pastoral or Agricultural Associations one of these to be joined with the Chamber of Commerce in selecting the Commission.

A Commission so appointed would be representative, competent, and as free as possible from political or outside influence, and we might reasonably expect a great deal of good to result from it.

In expressing a wish to have my proposals examined by such a Commission. I give the best guarantee possible of good faith, and of my thorough conviction of the soundness of my scheme. It has been before the public now for more than three years, and although it has been extensively discussed, so far there has not been even a *decent attempt* made to show that it is unsound. There has been plenty of abuse, plenty of "What does Mr. Vaile know?" "Where did he get his experience?" "It is simply ridiculous," etc., etc.; but not one iota of argument, no tact's, no figures, to prove me in the wrong, simply the gross misrepresentations and rude assertions of men who have neither the patience nor the ability to properly investigate the subject.

If the untruthful and contemptible document signed, "J. P. Maxwell," is all the united wisdom the Department can bring against it, I think it is quite time my plan was accorded a practical trial.

If I am right in my contention, a

VAST EXPANSION OF TRADE

must follow the adoption of my proposals. Numerous small industries, that cannot now be profitably carried on, could be made to pay well under the new order of things that would arise. Take one example. Large quantities of linseed and castor oil are imported. Both these articles could be manufactured here if the raw material could be produced cheaply enough.

If fares and freights were cut down as I propose, large numbers of shopmen, artisans, and labourers would be living out of town, on patches of from two to ten or more acres in extent. On these small plots, linseed, the castor oil bean, and numerous other things could and would be cultivated by the families while the men were working in the cities, and when they were out of work they would find employment on their own homesteads, instead of at once drifting away to other cities and other countries.

It is clearly to the advantage of the whole community to give these people an interest in the soil. As matters stand now, they have their deposit in the Savings Bank, their tools in their kit, and on the first little depression all they have to do is to lift these and be off", perhaps only too glad to leave the wretched town tenement they have been forced to occupy. All this would be altered if they had homesteads worth holding, and where they could earn at least part of a living; they would not then be so ready to leave, but would stay and help to tide over the depression.

As people were located in the country so railway trade must expand; this, of course, would create a demand for rolling-stock, the construction of which would employ many hands. I believe that our railways alone could easily be made to find employment for at least four times as many as they do at present.

I have often been surprised at the little interest the artisan and working-classes appear to take in this railway question. At the numerous lectures I have given on the subject I have rarely seen any of them present; and yet no classes are so deeply interested.

In these pages I have not thought it worth while to enter at any length into the many vagaries and absurdities of the present tariff. That part of the subject is, I think, pretty well understood now.

What we must guard against is being *satisfied with small concessions*. The Department just now is trying this plan extensively, and *thus seeking to buy off opposition and stifle the clamour for reform*.

New Zealand is perhaps the most fortunate country in the world in its great natural beauty, and in the wonderful variety and healthiness of its climate. We have a

VAST MINE OF WEALTH

here, if we would only conserve and use it aright. What would pay us so well as to make our country attractive to tourists?—people who come to spend money, not to make it; and what would attract them so much as cheap facilities for seeing its marvellous scenery? If it were known that people could travel here first-class over 400 miles for 18s. 6d., should we not have at least ten tourists for one we get now?

Our country is not a very large one, and we cannot afford to do as they have done in America—attract to its shores a large pauper population. We ought rather to do our utmost to make New Zealand a

CHEAP AND PLEASANT HOME,

and so induce people with means, those with fixed incomes, to come and reside among us. We might, if we would, have the most wealthy and cultivated population in the world; but, in order to do this, we must make New Zealand attractive to these classes.

I have been accused of fostering provincial jealousies. The accusation is untruthful and undeserved. Nothing would tend so much to extinguish these jealousies as the adoption of such a plan of railway administration as I propose, for as it would be universal in its application, there be would be no room for jealousy.

IN CONCLUSION

I would earnestly ask my fellow colonists to ponder over the following figures, and ask themselves this question, If we are to *continue the present system of management*, and are to borrow another, £12,000,000 or £15,000,000 for further railway construction, *what will be the ultimate result?*

I think I have shown that railways can be made to pay, and, if so, it would matter little what we borrowed. During the last five years our railways have made the following losses:—

The apparent improvement in 1885 was brought about by the ready expedient of pouncing upon users of the railways unawares—by suddenly raising the tariff. For the present financial year, up to the 5th December,

the receipts had fallen below the Treasurer's estimate by £70,000, and there are still four months of the year to run.

For this estimate, the Treasurer, of course, relied on the Minister for Public Works, and he again, no doubt, relies on the General Manager. Last year, also, their revenue fell short of the estimate by, £70,000, and they now are about to ask us to give them the control of another ten or fifteen millions' worth of property, because, as they choose to tell us, they cannot make our lines pay owing to their being disconnected.

That the disconnection of the lines is not the cause of their failure is proved by the fact that, for years past, the most rapidly increasing loss has been made on the Huranui-Bluff line, which has 900 miles, completely connecting several large centres of population. The real cause of our loss is *the want of business knowledge and capacity in those who really govern our railroads*. That many in the Department are aware that this is so, is proved by the fact that our best officers are leaving the service as fast as they can find openings elsewhere.

A portion of the Press of the colony has lately given expression to the opinion that a deliberate attempt is being made to so disgust the community with the railroads, that they will be glad to sell them to a syndicate. While I have never given utterance to such a thought, I confess it has often crossed my mind, for it does seem to me a thing incredible that the monstrous absurdities, perpetrated daily, can be allowed to take place, under the idea that they are likely to lead to successful financial results, or the good of the community.

To those who are inclined to favour the idea of selling the railroads of the colony, I recommend a careful perusal of the Appendix to this pamphlet.

Whatever may have led to the present position, I again say it is such as to require the earnest consideration of all who have the interests of this Colony at heart; and I would urge upon my fellow colonists the desirability of impressing upon their Parliamentary representatives the necessity that exists for an immediate and thorough examination of the whole subject.

Tariff of Fares and Rates

UNDER THE PROPOSED SYSTEM.

Auckland.—SOUTHERN LINE. TABLE OF RAILWAY FARES AND RATES.

All fares and rates are reckoned from TICKET STATION TO TICKET STATION, and are payable for the whole or any intermediate portion of the distance

To find your rate, count the number of ticket stations you require to pass and the station you wish to arrive at, and multiply the rate by that number.

Example:—Auckland to Mercer: First-class fare, five times 6d.=2s. 6d. for the whole distance.

The names of Ticket Stations are printed in capitals.

STATIONS.

PARCELS FREIGHT.

Not exceeding—

GOODS FREIGHT.

Live animals, agricultural produce of all kinds, and firewood, 4s. per truck.

Minerals, bricks, clay, sand, and coal, 1s. per ton. Anything under 3 tons to be charged as merchandise.

Timber, per 100 feet, 3d.

Merchandise of every other class, 2s. 6d. per ton.

Directions similar to the above, for each section of railway, would be all that is required to take the place of the present cumbrous and incomprehensible tariff; which I maintain is not only unnecessary, but intensely mischievous.

Report on Mr. Vaile's Proposals Respecting

Railway Rates and Fares.

By J. P. Maxwell, Esq. general manager new zealand railways with Mr: Samuel Vaile's Reply Thereto.

[MEMO.—I ask my readers when perusing the following disgracefully untruthful document, signed "J. P. Maxwell," to be good enough to bear in mind that they are reading an authoritative Government report, prepared to the order of the Hon. Edward Richardson, Minister for Public Works, and laid by him on the table of the House. It appears to me that the presentation of such a paper is an insult, not only to Parliament, but to the whole Colony.]

As to this so-called report, it may be summed up in the words, What does Mr. Vaile know. It is one long, laboured attempt to prove that I am ignorant of the subject I have written and spoken about, and in order to do this I am misquoted in the most untruthful manner, and petty details are alone dealt with, while the broad principles I advocate are not even referred to.

What I have persistently, and I think consistently, advocated, is this:—

- That the railways of the Colony belong to the people.
- That, as every colonist is taxed for their support, the beneficial use of our railways ought to be brought within the reach of every class—the poorest as well as the richest.
- That we have no right, and that it is unsound policy, to make the direct payment of interest the primary object in making and working our railways.
- That the primary object in making and working railways ought to be the settlement of the country, the development of its resources, and the convenience of its inhabitants.
- That railways ought to be so managed as to bring about a more equal distribution of population and wealth.
- That where railroads belong to the community there should be no differential rating, but that all districts and all men placed under similar circumstances should be treated alike.

With none of these principles is there the slightest attempt to deal, nor is there the faintest reply to my heavy indictment against the errors, inconsistencies, and absurdities of the present management.

Mr. Maxwell's report being merely a criticism of my personal qualifications, and that report being made by order of the Government, they have narrowed the question down to this issue, Who is best able to give an authoritative opinion on the matter, Mr. Maxwell or Mr. S. Vaile and those gentlemen who have carefully examined and reported on his plans? It therefore becomes necessary to say something about Mr. Maxwell's qualifications. He arrived in this colony in 1875, being then, I believe, about 25 years of age, and having been educated as a civil engineer.

In the old country he had no training whatever, either as a traffic manager or as a commercial and financial man. All he knows about railway management he has learnt since, by some mysterious process, he was pitchforked into the position of general manager of our railways. He has learnt what he knows in and at the expense of the Colony, and dearly have we paid for his education. As I proceed I shall prove that he is hopelessly ignorant of the system he professes to criticise.

On the other hand, the gentlemen who, after the most careful study, have reported that the adoption of my proposals would add at least £200,000 per annum to our railway revenue, are all thoroughly trained men, who have held offices in the old country that Mr. Maxwell would be utterly incapable of filling, and where his presence would not be tolerated for a moment. As to myself, I commenced my career as a principal in business when a mere boy, in 1851, and from that time to this have always been at the head of a firm occupying a prominent position, so I think I may fairly claim to have some commercial knowledge and ability. I ask, Of what value is Mr. Maxwell's opinion, with his imperfect training, as compared with the united opinions brought to bear against him?

To save repetition, I have numbered the paragraphs of Mr. Maxwell's report, and shall merely quote and comment on them. He commences by saying:—

1. *To "The Hon. the Minister for Public Works":—In compliance with your instructions that a report should be made on the so-called scheme of management of Mr. Samuel Vaile, of Auckland, I have the honour to remark as follows:—*

2. *While Mr. Vaile appears to claim to have enunciated a "scheme of management," I can find nothing touching on a "general scheme of management," but only some very extravagantly expressed opinions on the subject of rates and fares, mainly unsupported by facts, and with many errors and misstatements, comprised in various fragmentary circulars, letters, and addresses.*

I have repeatedly stated that I have made no attempt to go into details, but have merely indicated the broad lines on which I believe railways ought to be managed. It will be time enough to furnish details when there is a

chance of trying the proposed plan.

3. In his printed circular of the 6th April, 1883, which he addresses to the Chambers of Commerce in New Zealand and Australia, Mr. Vaile says, "It seems to have been assumed by the Governments of the colonies that the railways must be made to pay interest on the cost of their construction and maintenance. This I hold to be a most mischievous error." Again, he says, "I deny that they (the Governments) have any more right to charge interest on the cost of construction and maintenance of the permanent-way than they have on the cost of construction and maintenance of common roads." The curious error of supposing that it is usual to try to make railways pay interest on the cost of maintenance is repeated in Mr. Vaile's lecture of the 3rd November, 1883. It will be seen that there is a great degree of ignorance displayed in these remarks.

The position I have taken up throughout is this: That the permanent-way of our railroads ought to be placed in precisely the same position as our main trunk roads. These we construct out of loan and maintain out of taxation. Railroads we also construct out of loan, but we are supposed to maintain them out of interest earned. This is what I wished to point out and condemn. I have also reason to believe that large sums, which under the present system ought to be charged to revenue, have been charged to capital account.

4. Mr. Vaile, means, of course, that it is an error to try to make the railways pay interest on their capital cost; but, with the inconsistency which is displayed throughout his writings, he violently condemns the Government because the railways do not pay interest, and urges steps which he asserts will make them do so.

I meant nothing of the kind, but merely what I said; and I have over and over again stated, both in the circular he professes to be quoting from and in numerous other places, that interest must be paid on the amount expended for rolling stock, which I presume forms a considerable item in the "capital cost," although Mr Maxwell "may not be aware of it."

The statement that I have violently attacked the Government for not making the railways pay interest is an untruth. I have everywhere stated that the payment of interest ought to be a very secondary consideration. What I have attacked the Department for is, not making the railways pay either *directly or indirectly*, but I have always attached the most importance to the indirect payment. I have also asserted that by treating the public in a more liberal manner, they (the railways) could be made to pay *both directly and indirectly*; and I think I have pointed out means by which this may be accomplished.

5. In the same circular, speaking of the rates and fares in use, Mr. Vaile says, "I have utterly failed to master them." Cadets of fifteen years of age, who have passed the sixth standard at the Government schools, have no difficulty in learning them.

I have in my possession numberless proofs that not only will two stationmasters give different answers to the same question, but that the same man will charge three different prices for the same service rendered. Consequently, if Mr. Maxwell's assertion is true, he must have selected men for stationmasters who are far inferior in ability to sixth standard boys. This proves him totally unfit for his post. The circular referred to was written only three months after I first commenced to ventilate the subject.

Recently a gentleman called at my office, and handed me a freight receipt for conveying a boat 22 miles. On applying at his own station for the cost, he was told 5s. or 6s.; but on arriving at its destination, he was charged 13s. What about the sixth standard boy?

6 and 7. Mr. Vaile's original object in advocating low fares appears to be set forth in the same circular. He remarks as follows: "Take, for instance, the Rotorua Railway, in which I am a shareholder. To go from Auckland to the junction of this line under the plan proposed would cost second-class passengers 2s. and first-class 3s. each; thus, being carried so far on their journey for such a small charge, they would be better able to pay the higher fare for the rest of the distance." That is to say that, by lowering the fare on the Government lines, Mr. Vaile would be able to secure higher ones on the line in which he was interested.

Mr. Maxwell evidently judges other people by his own standard. This is the whole sentence he has garbled. "It has been objected that my plan would prevent the construction of private railways. This is a mistake. Take, for instance, the Rotorua Railway, in which I am a shareholder. To go from Auckland to the junction of this line under the plan proposed would cost second-class passengers 2s., and first-class 3s. each; thus, being carried so far on their journey for such a small charge, they would be better able to pay the higher fare for the rest of the distance. Thus, I think, the new plan would help the construction of private railways. There would also be this inducement: that the Government would ultimately be compelled to purchase and take them over."

My contention has always been that all the railways ought to be in the hands of the Government. Neither directly nor indirectly have I ever possessed a larger interest than £200 in the Rotorua Railway.

8. Mr. Vaile's crude and incomplete proposals for fares and rates, as stated in his circular of the 5th April, 1883, are on a differential basis. In subsequent letters he violently condemns differential rating, and scurrilously attacks those who do not agree with his projects.

I have before stated that Mr. Maxwell's professional training has been very imperfect, but I did not suppose him to be so ignorant as this sentence proves him to be, for it is very evident that he does not know the meaning

of the term "differential rating." It may be useful to him if I explain what it does mean. This is differential rating:—"Deeming" 21 miles round Christchurch to be only 15 miles, for the purpose of reckoning fares and freights, when the full distance, or more than the full distance is charged in every other district; Of charging a Christchurch man 8s. for the same service that a Dunedin man would have to pay 10s., or an Auckland man 13s. 9d. for. This is done every day, and it fairly illustrates the principle.

I am at a loss to know what Mr. Maxwell means, and can only imagine that he refers to the fact that in districts more than 30 miles from a large centre of population I propose a rate that would be less per mile than that within the 30 miles. If this is his meaning:—"It will be seen that there is a great amount of ignorance displayed;" for how can there be any "differential basis" when every man, and every district, placed under similar circumstances, are treated alike?

9. We learn thus from Mr. Vaile: 1. That his remarks apply to the Australian railways, as well as to New Zealand. 2. That he holds it to be a mischievous error to try to make railways pay interest. 3. That he does not understand the present system of rates and fares. 4. That he would have charged higher fares on the Rotorua Railway, in which he was personally interested than he proposed for the Government railways. 5. That while he himself does not hesitate to propose differential rates and fares, he at the same time denounces them.

All the items in this paragraph have been answered except the first, and for gross perversion of any writer's meaning, I have rarely seen that equalled. The following is what I wrote:—

"I communicate with the Australian Chambers, because the question raised interests them quite as much as it does ourselves, but the colony that first adopts a cheap system of railway communication will no doubt gain a great advantage."

Mr. Maxwell seeks to make it appear that I have found the same fault with the management of the railways of Australia as I have with those of New Zealand. The fact is, I have shown at every lecture that not only are the New South Wales rates enormously lower than ours, but that, as the financial result, they not only pay all interest, but also pay a large surplus. Mr. Maxwell has no doubt felt the sting, and so seeks to pervert my meaning.

10. It is difficult to seriously discuss the inconsistencies and misstatements with which Mr. Vaile's writings abound. When he suggests that it costs no more to carry a ton of passengers than to carry a ton of coals he is writing nonsense, though he may be unaware of it.

What I said was this: "Competent English authorities have said that the net cost of carrying a passenger is thirty miles for one penny,' and "minerals, notably coals, are every day carried on the English lines at the rate of one-halfpenny per ton per mile, and this is one of the best paying trades done on the lines." It is usual to reckon fifteen passengers to a ton, which at the above rate is equal to thirty miles for one penny. If we set the profit on carrying the coal as against the extra, cost of carrying the man, we shall find that my statement is well within the mark. I have no doubt Mr. Maxwell thought I was writing nonsense, but the fact is everything he says and does proves his ignorance of what railways are capable of accomplishing.

11. When he says that "the loss on our railways increased from £180,855 in 1881 to £377,186 in 1884, and at this rate we should, in 1888, require £2,500,000 to support our railways," he is making a statement which is misleading, and drawing a conclusion which is false. He may or may not be aware of this. In either case he is equally untrustworthy as a guide, and consequently should forfeit all claim to the respect of intelligent men as an authority.

With an evident wish to mislead, Mr. Maxwell quotes the loss in two years only. I gave four years, and said that if the loss went on increasing in the same ratio for the next four years that then the result would be as above. My statement is correct.

12. The following is an instance of an error in a letter of Mr. Vaile's, dated the 14th July, 1885, in which he misstates the distances on which some coal rates are based. I give Mr. Vaile's figures alongside the correct ones:—

13. These figures Mr. Vaile used to give colour to a further misstatement which he made about the coal rates. His figures and opinions are, as a rule, as unreliable and untrustworthy as his misstated distances.

I have only lately found out the true solution of this matter. This is it: When I wrote my letter re the coal rates, following the only maps and other data obtainable here, I worked out these distances as explained in my letter of 22nd July last. I was aware that the Sheffield-Oxford branch was in course of construction, but several gentlemen who know the Canterbury lines intimately assured me that it had not been opened, and it now appears that as a matter of fact it was not opened until the middle of September, or *two months after my letter was written*. A reference to the September *Bradshaw* will show that this line is not mentioned there. It was therefore impossible for me to know that for some time before the date mentioned the Department had been carrying coal along that line. It is not necessary for me to characterise the conduct of the Minister and his colleague in the terms it merits. Honourable men will know how to do that. The eagerness with which the Department seized upon the first thing they could call an error shows how closely they have watched for a

chance to show me in the wrong.

14. *If we judge from these preliminary inquiries, we may conclude that we are unlikely to find Mr. Vaile's proposals to be of a reliable character. A brief examination of his paper, read before the Auckland Institute, on the 12th November, 1883, will enable us to further test his statements.*

15. *In regard to goods rate, we find in Mr. Vaile's circular of the 5th April, 1883, a proposal published to carry trucks for "horses, cattle, sheep, calves, pigs, goats, hay, straw, and firewood at 8s. per truck; minerals, at 2s. per ton; timber, at 6d. per 100 superficial feet or fraction of 100 feet; all other merchandise, of every class and description, at \$s. per ton." This is for each fifteen mile, thirty mile, and one hundred mile units of distance; so that for sixteen miles the charges would be double those for fifteen miles. Grain would be charged for sixteen miles 10s. a ton; the present Government rate is 4s. a ton.*

16. *Then, to use Mr. Vaile's words "On more mature consideration, I thought it desirable to double the number of stations and to halve the fares. This alteration was made in November, 1883."*

I find on referring that I suggested this alteration in my letter of 5th April, 1883, three months after the publication of my first letter.

17. *Turning to Mr. Vaile's lecture of November, 1883, we find his proposals for goods rates varied thus: "Trucks for horses, cattle, sheep, calves, pigs, goats, hay, straw, agricultural produce of all kinds, and firewood, 4s. per truck; minerals, is per ton; timber, per too feet or fraction of 100 feet, 3d.; all other merchandise, 2s. 6d. per ton."*

18. *This is first for four units of distance of seven miles each, and after that units of fifty miles each, as he then explains. Yet he deliberately ventures to to say in another printed letter of the 9th July, 1885:—"My proposals have never been altered, and the only modification made is this: In my first letter I proposed to have half the number of stations, and to charge double the amount of fares now suggested." Let us see how he did alter his proposals as they affect one item—agricultural produce—which, under his proposals of April, 1883, he would have charged 10s. a ton for sixteen miles, and 15s. a ton for forty-six miles. Under the proposal of November, 1883, he would charge for sixteen miles 2s. 5d. per ton, and for forty-six miles 4s. a ton; and yet he says he has only halved the distance, and doubled the fares!*

I have never proposed either a 30 or a 46 mile distance. They are simply an invention of Mr. Maxwell's.

19. *After this we find Mr. Vaile, at the Napier Chamber of Commerce, in March, 1885, reported, in the Daily Telegraphy to have said, "He had not published any proposed goods rate, because there were no statistics published on which he could found any scale of charges, and he had no wish to make a mistake which would be freely used by his opponents."*

20. *As we have seen, this statement was untrue; but, at any rate, it is an acknowledgment of failure, and an admission that his proposals were bad. It is therefore of no use to try to pursue the subject of goods rates further, except to remark that if the latter proposals of Mr. Vaile were adopted, the revenue would fall far below the working expenses.*

What I said at Napier was "That I had not paid so much attention to goods as to passenger rates, because," etc.

It will be remembered that Mr. Richardson stated to the House that "Mr. Vaile's proposals had been so much varied from time to time that it was almost impossible to say whether they had all been considered or not."

A reference to *Hansard* of July 8th, July 21st, and September 4th, will show that Mr. Richardson has three times made this untruthful statement to the House.

The above six paragraphs appear to be an attempt to prove the truth of that assertion. But what does it all amount to? Simply this, that they accuse me of making *one* alteration in the rates "suggested" for agricultural produce. Now, if the alteration of a rate means the alteration of a system, then the present system must be altered daily. However, I never made this alteration; Mr. Maxwell has made it for me, to suit his own purpose, but I never did.

In my paper of the 5th of April, 1883, agricultural produce *is not mentioned at all*. Whether it was my omission in writing out the fair copy, or whether it was the printer's, I cannot now tell, but it was intended, as was done in my paper of the 12th of November following, to include it in the trucks, at 8s.

This is all they can bring in support of their assertion, that I have so much varied my proposals that it is impossible to consider them. It is really sickening to have to reply to such untruthful, puerile nonsense.

21. *We will now consider the subject of passenger fares.*

22. *The impression Mr. Vaile has conveyed to the public is that he proposes a universal reduction in passenger fares. It is found on investigating his proposals, that his scheme would largely increase a great proportion of them. On the Auckland line, for instance, there were last year, 411,745 journeys due to ordinary tickets, and 240,352 due to season tickets.*

This figure of 411,745 throws a flood of light on the way in which the railway accounts are made up.

Return No. V., attached to Mr. Maxwell's reports for last year, states that there were 187,461 "single passengers," and 224,284 "return" passengers. Return No. X. shows that on the Auckland section the total number of "tickets issued" was only 299,603. On investigation, I find that the 224,284 "return" given in No. V. table is really only so many halves of returns; that is to say that the number of return tickets issued was only 112,142. Comment is unnecessary. As to the 240,352 journeys said to be due to season tickets, like Mr. Richardson's celebrated 10s. 1d., it is a purely bogus figure, created by Mr. Maxwell for a not very creditable purpose. Every season ticketholder knows that no record is kept of the journey he takes:—

23. *A six-monthly season ticket-holder for stations seven miles apart can travel as many journeys daily as trains permit; first-class for 9d. a day, and second class for 7d. a day. Mr. Vaile's lowest proposed fares for the distance are 6d and 4d. for each separate journey. For a fifteen-mile distance the six-monthly season ticket costs is. 4d. first class, and is. ½d. second class per day. Mr. Vaile's proposed fares are is. and 8d. for each separate journey respectively. If Mr. Vaile's fares were substituted, the heavy increase would be objectionable on many grounds, and would diminish the traffic. If the present season tickets were retained, then, as regards this section of travellers, they would be unaffected, and no increase of traffic would result.*

This is a comparison of six-monthly season ticket fares, on the assumption that every holder would travel every day, with my single ticket fares. Could a more dishonest comparison be drawn? If Mr. Maxwell is so ignorant of his profession as not to know that season tickets could just as well be issued under my system as under his, it is another proof of his unfitness for his post. The single first-class fare to Penrose (six miles) or Onehunga (eight miles) is is.; my proposal is 6d.; Manurewa (fifteen miles) 3s. 9d.; my proposed fare, is.; and yet Mr. Maxwell has the audacity to say that for these distances I propose to increase the fares.

24. *The ordinary tickets, Auckland to Onehunga, for return passengers, now cost 9d. and 7d. per journey first-class and second-class respectively. Mr. Vaile's proposal would raise them to is. and 8d. for each journey respectively.*

I am sorry to be compelled to use such strong language, but as I have never, at any time, in any place, under any circumstances, either in writing or speaking, proposed any other fares to Onehunga than 6d. and 4d., I can only characterise this statement of Mr. Maxwell's as deliberately untrue, for it is impossible to imagine it could have been made in error.

25. *Between Auckland and Otahuhu the present fares for return passengers are is. and 9d. first and second class respectively for each journey. Mr. Vaile proposes for each journey is. and 8d. respectively.*

When my proposals were first made, single fares to Otahuhu were is. 6d. and is. Any reduction made is due to my agitation.

26. *Thus, for more than one-third of the total number of journeys namely, for the season ticket journeys—Mr. Vaile's proposals would, if adopted, involve an excessive increase in fares. Of the remaining journeys, by far the larger proportion are for distances under ten miles, for which Mr. Vaile's proposals provide either increased fares or fares not very materially differing from those prevailing. So that no practical increase in passenger traffic could be expected by adopting Mr. Vaile's proposals in these respects. Mr. Vaile has deceived himself, and has misled others by his averages.*

As I have shown, the one-third here spoken of is a bogus figure. As to the remainder, it must be remembered that Mr. Maxwell is now professedly comparing single fares with single fares, and states that for distances under ten miles I propose either increased fares or no material reduction. They compare as follows:—First-class: Present fare, 3 miles, 9d.: my fare, 6d. Four miles: Present fare, 1s.; my fare, 6d. Six miles: Present fare, is.; my fare, 6d. Nine miles: Present fare, 1s. 6d.; my fare, 1s. The statement deliberately made in a document presented to Parliament, by order of the Minister for Public Works, is that these reductions are either an increase or not a material reduction.

27. *The only portion of the passengers that Mr. Vaile's proposed fares would largely affect are those travelling beyond distances of 10 miles. He proposes fares which may average, according to his own views, about one-fifth the present fares. The long-distance travellers form a small proportion only of the ordinary ticket travellers, but, being charged at a uniform scale of fare, they bring not less than two-thirds of the total ordinary ticket revenue. While, therefore, the number of passengers is small in proportion to the total ordinary ticket passengers, the revenue affected is large is proportion to the total revenue.*

I find that the average distance travelled by passengers on our rails is under 11 miles, and therefore cannot believe Mr. Maxwell's statement that the long distance fares pay two-thirds of the passenger revenue. If they do, it is a most convincing proof that country residents are charged an unfair price, in order that townspeople may travel cheaply. In paragraph 26 Mr. Maxwell informs us that five-sixths of the journeys made are for short distances, and, in paragraph 27, asserts that the remaining one-sixth pays two-thirds of the total revenue. Does he know what he is talking about?

28. *While we could expect no practical effect on passenger traffic within short distances, we should have to increase the number of long distance passengers five times to get the same revenue from that source.*

I have repeatedly shown that the *average* fare paid by all travellers on our railways for the year ending March, 1884, was under 1s. 9¾. Therefore it is absolutely certain that if any system—no matter what it may be—can be devised, by which sufficient inducement can be given to cause two fares to be taken where one is taken now, and that those fares do not sink below an average of is each, that then we must make a profit, inasmuch as 2s. must be greatly better than is. 9¾d. where millions of them are concerned. This I claim to have done, and many "railway men," infinitely the superiors of Mr. Richardson and Mr. Maxwell in professional standing and ability, join in saying I have done. Mr. Maxwell's talk about five passengers being needed for one is mere rubbish, "although he may not be aware of it."

29. *If such a passenger traffic did arise, there would be a heavy loss, as passengers could not be profitably carried for such long distances at such low fares, with the conditions under which we are working.*

Mr. Maxwell here gives me the first opportunity of replying to anything that is not either a personality or a misrepresentation. I gladly avail myself of the opportunity.

First, let me remark that, having been always used to work at an even mileage rate, he evidently thinks that the through fare is all that can be earned.

When fares are thus reckoned as regards the financial result, it matters nothing whether a seat in a carriage is occupied by the same passenger for the through journey or by twenty different passengers. The result, however, works out very differently when fares are reckoned by stages. Thus, on my system, a first-class seat occupied by a through passenger from Auckland to Te Awamutu would only earn 3s., it is possible for that seat, by a succession of passengers from station to station, to earn 17s. This is an essential feature of my plan, and to it I look for a large share of the profit. I confidently expect that the station to station business would so largely increase, that, on the average, my through fares would be more than doubled.

However, in order to give Mr. Maxwell every possible advantage, I will argue the matter out on the through fare only, and so that he *shall not accuse me of taking any advantage to myself*, I will at once select the longest fare possible—namely, from Waikari, in Canterbury, to the Bluff, in Southland, a run of 436 miles. The present fares are: First-class, £4 10s. id.; second-class, £3 os. 9d. I propose to reduce them to 18s. 6d. and 12s. 8d.; averages of the two fares, 15s. 7d. I maintain that passengers can be very profitably carried at these fares, and beyond the mere assertions of Mr. Maxwell and the few men of inferior professional attainments who are with him, my position has never been disputed, and these men have never brought, nor can they bring, either facts or figures in support of their assertions.

To prove that I am right, I quote the following indisputable facts: In America they use only one class of carriage, but that is far superior to our first-class.

The every-day fare on the Erie railroad is one cent per mile, which is equal to 18s. 2d. for the 436 miles, or fourpence less than my first-class through fares.

On the East Indian Railway the fourth-class fare is two and a half (2½) pie per mile. Reckoning the rupee at 1s. 8d., this is equal to nine and sixpence (9s. 6d.) for the 436 miles; and Mr. Maxwell tells me we cannot do it at an average fare of 15s. 7d.

Let him listen to this, and learn a lesson if he is capable of doing so. In 1883 this railway carried 11,959,581 fares, and of that number, 11,311,372 were carried at the rate quoted above, leaving only 648,209 fares for the three higher classes. On some, a very few, of the Indian railways there is no fourth-class, but their third-class fare for the return journey is generally about one farthing per mile.

In 1883 the Indian railways carried a total of 65,008,953 fares, and of that number 60,113,313 were fourth-class passengers, yet these railways paid all round a "net profit of 5-91 percent." Do not cheap fares pay?

Mr. Maxwell will, of course, talk about cheap labour in India for construction and working. Well, we will now take him to the most expensive line in the world, and from it I will undertake to draw my grandest illustration of how cheaply people are carried. On the London Metropolitan Railway passengers are daily carried 16 miles for twopence (2d.), which is equal to 4s. 6½d. (four shillings and sixpence half-penny) for the 436 miles.

In comparing what is done on English lines with what might be done here it is necessary to keep the following points steadily in view:—1st, The much greater cost per mile of the English railways, and (2nd) the fact that the rate of interest the English companies have to pay will certainly be as high, and probably a great deal higher, than our rate. The drawbacks on our side are defective construction and the slightly increased cost of wages. Every mile of the London Metropolitan Railway costs on an average £655,000 as against our £7,979. They, therefore, require to earn over eighty-two times as much interest per mile as we require, *and yet they daily carry passengers at only a little over one-third of my lowest proposed fare.*

I shall of course be met with the usual talk about the enormous population of London, but it will be seen that, as we require only one eighty-second part of the interest they require, and the proposed fare is three times theirs, we could do with one fare for every 250 or 300 they require. I shall again be told that they can get them easily—how and from where? The population of London is not more than nine times the population of New

Zealand and that of the United Kingdom not seventy times, therefore they can only get their fares by giving greater facilities. If we gave similar facilities we could get fares in the same proportion.

On the Caledonian Railway (which pays from four to six per cent, dividends), they carry goods of all classes at an average rate of one-eighth of a penny per ton per mile, and the proof that this rate pays, is the fact that it is an internal arrangement with another company. In weight this is equal to carrying a passenger 120 miles for one penny (1d.). This would give us about 3³/₄d. for the 436 miles, consequently Mr. Maxwell assures us that we cannot do work in New Zealand for fifty times the rate it is done at in Scotland.

One more proof, and this time from the rates for which Mr. Maxwell is alone responsible. The highest goods rate we have in our tariff is for class A. I might, in all fairness, take the average of all classes carried by weight, *but being particularly anxious to give Mr. Maxwell every advantage*, I take class A alone. The freight for twenty tons of this class for the 436 miles would be £109 10s.,

In my original reply to Mr. Maxwell this figure was erroneously given as £146 6s. 8d. receivable for twenty tons of goods instead of £109 10s. as above, thus reducing the extra profit on passengers to £43 17s. instead of £90 3s. the right figure. This proves that passengers at my lowest rates would for the longest journeys pay eighty-five per cent, better than the highest class of goods.

and the weight of rolling stock required to haul it, say fifteen tons.

Twenty tons of passengers (300) at my average fare for the 436 miles (15s. 7d.) would yield £,233 15s., and the weight of rolling stock required would be, say sixty-three tons. In England it is usual to reckon 1/8d. per ton per mile for the use of rolling stock, but suppose (to make sure) we allow four times that amount,

This is equal to 5d. per carriage per mile. I find the usual charge in England is 3/4d. per carriage per mile; but I can afford to be liberal, and yet shew that my low fares will yield a handsome profit.

and the charge would be £43 12s. for the forty-eight tons of extra rolling stock required, which would still leave £90 3s. in favour of the passengers.

Mr. Maxwell will say, "It is all very well, but you cannot fill your cars." I reply, "Neither do you fill your trucks, and that it is easier to estimate closely for passengers than for goods, inasmuch as with passengers you always have a return cargo."

I think I have redeemed my promise, and shown that Mr. Maxwell does not know what he is talking about. I have proved that in America, India, London, and Scotland, work is daily done at rates far less than I propose, and in doing so I have not claimed nearly all the advantage I am entitled to, for I have reckoned on the through fare only, and have asked nothing for the profit that must be made on the station to station work, which I estimate will add fifty per cent, to the rates I have quoted, and most likely double them.

Mr. Maxwell says, "Passengers cannot be profitably carried at such low fares with the conditions under which we are working." The reply is obvious. Adverse "conditions" ought to be removed. For many, if not most of them, Mr. Maxwell is himself responsible.

30. The demand made for lower fares, rates, and charges is a natural one and it is one which the Government and its officers must always be most desirous of meeting, because the granting of concessions and remedying of grievances are always popular, and therefore grateful to those in control as well as to the public.

Mr. Maxwell appears to think that the railways of the colony are his private property, and that it remains with him to grant "concessions" as he thinks fit.

31. Last year the railways yielded. £355,685, after deducting working expenses, which sum was available towards the payment of interest on the loans. This amount was about 33 per cent, of the gross revenue. If, then, the rates and fares were lowered by about 33 per cent, all round, we might expect that the revenue would just cover working expenses, and there would be no net proceeds available towards payment of interest, and there would be an additional sum of, £355,000 or thereabouts to be raised by taxation.

The commercial ignorance Mr. Maxwell displays in this paragraph is absolutely astounding. It is almost inconceivable that a man in his position could have written it. It must also be borne in mind that this was done to the order of the Minister for Public Works, and that he has perused, passed, and laid it on the table of the House, thereby adopting the opinion expressed as his own.

The fact that such an incompetent pair are allowed to preside over the most important department in the Government, is sufficient to make New Zealand the laughing-stock of the commercial world.

That it is no mere slip, but their deliberate opinion, is proved by the fact that it is repeated and enforced in paragraphs 33, 34, and 35.

We here have the general manager of our railways deliberately signing his name to a statement to the effect that no matter what inducements may be offered, no matter what facilities may be given, both to consumers and producers, that it is utterly impossible to expand railway traffic. Could we have a more emphatic proof of the truth of my assertion that Mr. Maxwell does not possess one grain of commercial or financial ability?

There can be no doubt Mr. Maxwell really means what he says. He believes that there is only so much trade to be done, and that therefore he had better charge the highest possible price for doing it. He has persistently

conducted the work of the department on this assumption, and that is the cause of the serious loss we have made, and the greater loss we are now making.

I am aware that the following information will be lost on Mr. Maxwell, but it may not be on the public.

In the Southern States of America the average fare paid by all travellers is 2.84 cents per mile, and they shift their population only a very trifle over once per annum.

In the Western states the average fare is 2.56 cents per mile, and they shift their population four-and-a-half (4½) times per annum.

In the Middle States the average fare is 2.17 cents per mile, and they shift their population ten (10) times per annum.

In the New England States the average fare is 2.15 cents per mile, and they shift their population eighteen (18) times per annum.

The above facts prove conclusively that the lower the fare is, the more often will the population travel.

32. *If the colony is of opinion, with Mr. Vaile, that it is a mischievous error to try to make the railways pay interest on their capital cost, it is quite easy to reduce the rates, fares, and charges, so as to make no profit.*

This is addressed to the public, and it reads very like an insult. Everyone knows that it is easy to reduce and lose. It is quite possible to reduce and make a large profit, but it takes a man of ability to do it.

33. *A second-class single fare for eighty-four miles is now us. 8d. If it were reduced by 33 per cent it would be 7s. 9d. Mr. Vaile proposes to make it is. 8d.*

34. *We must be clear on this point. We have seen that, were fares, rates, and charges reduced all round by 33 per cent, we might expect to realise no profit, and additional taxation in some form, to the extent of about £355,000 a year, would be needed to pay interest.*

35. *It is easy to see if they were reduced all round, as Mr. Vaile suggests, a further large sum would have to be raised to pay the deficiency of the revenue below the cost of working.*

These are but a reiteration of paragraph 31. They, however, serve to show how rooted and fixed the idea is in Mr. Maxwell's mind.

36. *The question is asked by Mr. Vaile, "If applying the law of averages has been so successful in the cases of letters, parcels, and telegrams, why should it not succeed in the case of railways?"*

37. *There is a strange confusion of ideas in classing the transmission of telegrams with the conveyance of goods. It sounds like a suggestion that the transmission of telegrams should be by the ton. As regards letters, letters at a uniform postage of 2d. each will cost about £600 per ton to transmit. They will at this rate be carried from Auckland either to Onehunga or the Bluff. There is a material difference in dealing with letters or with parcels of light weight and with goods. In the former the element of weight only affects the cost of operations in the most trifling degree in proportion to the other elements which determine the cost of working the Post Office. In railway goods traffic the bulk and weight rank as chief factors in making up the cost of conveyance.*

There is no doubt "a strange confusion of ideas" in Mr. Maxwell's mind on this subject, but there is none whatever in mine. Mr. Maxwell has got the idea of "by the ton" so firmly fixed as to incapacitate him for dealing effectively with that very important branch of railway traffic, the half-tons, quarter-tons, hundredweights, and smaller parcels.

38. *It has often happened that persons contrast the services, rates, and fares of the New Zealand railway with those of Great Britain and other great countries, to the disadvantage of the former. The New Zealand railways' management and services, etc., have been contrasted with the Midland Railway, for instance. The Midland Railway is situated in one compact system, occupying a small area in the most densely populated part of one of the most densely populated countries. The Company works about fourteen hundred miles of railway, in which is invested more than seventy millions of capital; it has an annual gross revenue of over seven millions sterling. The rates of wages for working range from one-third to one-half the rates of wages current in New Zealand. The lines are most expensively and perfectly constructed, and equipped with the very finest locomotives and rolling-stock, and there is a professional control with absolute powers of management. The colony has fifteen hundred miles of very lightly constructed lines, with steep gradients and sharp curves, with light stock designed for low speeds. The system is in detached portions scattered over the whole area of a very sparsely-populated country. The colony deliberately went in for a system of very cheap lines, and very humble accommodation and equipment, because the means were not available to do better. There can be no doubt of the prudence of adopting such an economical course. The originators of the railway system, I am informed, never contemplated building first-class lines and equipping them in the luxurious and complete manner suitable for a densely populated country. Nor was it anticipated that wages would be lowered to approach those in Great Britain, so as to enable the working of the railways to be done as cheaply.*

39. *It is idle to suppose that, under such widely differing conditions, the New Zealand railway system could perform its work as cheaply as the Midland Railway system, or that rates and fares can be placed so low here*

as in England unless a much lower percentage of net earnings is looked for.

J. P. Maxwell,
General Manager New Zealand Railways.

Wellington,

17th Sept., 1885.

As these paragraphs of Mr. Maxwell's report have no reference to anything I have ever said or done, it is not necessary for me to reply to the twaddle they contain. I may however, remark that when Mr. Maxwell talks about the cheapness of labour on the English lines, he appears to be unaware of the fact that it takes an average of 19 men per mile to work those lines, while here we manage with less than three. I presume he will admit that 19 men in England cost more than three here. His talk, then, about their cheap labour is, as I say, twaddle. *He has not studied his subject, and is not entitled to speak with authority.*

I have now waded through this disgracefully untruthful document with the best patience I could command. If it fairly represents the reports usually presented to Parliament, it is a poor look-out, for it is quite certain that this one must have been made with the intention of deceiving and misleading the House and the country. I, however, do not believe that it does, and I very much doubt if in the whole Civil Service any other man than Mr. Joseph Prime Maxwell could be found to sign his name to such a paper.

It will be remembered that Mr. Richardson in the House has, on three separate occasions, stated that I have proposed several schemes of railway management. I presume his object was to create an impression that I did not know what I wanted. The whole country knows that I have never proposed any but the one scheme, and if that is so silly why did he and other Ministers order "a great many" reports to be made upon it. I call attention to the fact that Mr. Maxwell's report does not bear out the statements of the Minister, and that he never attempts to report on more than one plan.

If the Government had wished to act rightly they would not have refused the prayer of the Reform League's petition to submit the matter to an impartial tribunal. As they have not hesitated to resort to direct untruth to prove me wrong, they certainly would have availed themselves of this opportunity had they not felt sure that the result of the enquiry would have been to show that I am right.

In concluding, I wish to express my deep regret at the personal tone this discussion has taken, but I have had little else than personalities to reply to. Why the Department—or rather the present Minister and general manager—should have imported so much personal feeling into a great public question, I am at a loss to imagine. I have never asked or expected anything from them, but, on the contrary, have endeavoured, to the best of my ability, to render them and the country a great service.

Personalities were first introduced by a most insolent letter from Mr. Maxwell to the Auckland Chamber of Commerce in answer to resolutions I moved as a member of that body. What that letter was like may be inferred from the fact that the Chamber asked an explanation from the Government, and an apology was sent

I, however, hope that good will result. The country must now see that no help can be expected from the present Government, that they are determined to stifle enquiry, and persevere in a system that is fast ruining the country; therefore the people must help themselves, and during the next session of Parliament not only make their voices heard, but also their actions felt.

Appendix.

Extracts From a Paper on the Influence of the Means of Transit on the Social Condition of the People.

By Samuel Vaile.

Read before the Auckland Institute on the 21st September, 1885.

* * * * *

A very small amount of consideration will convince anyone that the facilities possessed by any country for the transport of its people, produce, and merchandise, must have a marked effect on the social condition of its inhabitants; and this being the case, it is the more remarkable that so little attention has been paid to the subject.

I believe it might be laid down as an axiom, that the commercial and social prosperity of any country is in exact proportion to its transit facilities.

* * * * *

A little careful study will show that, as every marked increase in the facilities for travelling has been accorded to any people, so there has speedily followed an equally marked improvement in the commercial and social condition of that community.

* * * * *

With the Romans came good roads and ships—or rather galleys,—and the advance in civilisation was rapid. I do not mean to say that the roads were the only civilising agencies at work, but I do emphatically say this—that, without the roads, the civilising influence of the Romans would have been confined within very narrow limits. Civilising influences were then, as they are now, limited by the speed, ease, and cheapness of the means of transit.

Take for instance the vast continent of Africa. Portions of it have been highly civilised for ages, but how little the influence of that civilisation was felt over the whole continent. And for why? Simply because those nations had no adequate means of reaching the interior; nor can this great work ever be accomplished until we push our roads and rails into its principal districts.

* * * * *

The means of inland transit began to improve in the days of Telford, McAdam, and the Earl of Bridgewater, but it was not till the advent of steam that any real progress was made. With the development of the new motive power came great and rapid progress—civilisation, the arts, science, manufactures. All shot ahead with marvellous speed. Wealth was rapidly accumulated; luxury, pleasure, social enjoyments increased everywhere; and, side by side with all this, came an ever increasing, ever darkening, ever deepening in hideous intensity, such a mass of human wretchedness and misery as no former age has ever witnessed, and such as we hope, in God's mercy, no future age will ever see.

What an amount of trouble and research has been expended in attempting to account for this vast accumulation of wealth, the great and enormous progress made in the arts and sciences, side by side with the constant piling up of the most abject poverty, disease, and crime. People ask how it is, and why it should be, that in one street there should be whole terraces of houses full of every conceivable luxury, houses that cannot be maintained under many thousands per annum, and, that in another street only a few yards off, there should be nothing but the most wretched hovels inhabited by the most miserably poor?

THIS QUESTION OF THE UNEQUAL DISTRIBUTION OF WEALTH

Is a great one. In the near future it must be settled, and if we cannot find peaceful and natural means of doing this, we may make sure that violent and unnatural ones will be brought into play, and surely effect the purpose.

I happen to know something of the condition of the poor of the great cities of the Old Country. I have worked among the London poor, and visited the slums of Manchester and Liverpool. You who have not seen these things, but have read "The Bitter Cry of Outcast London," "How the Poor Live," and similar works, will most likely be inclined to think that the pictures there drawn are exaggerated. I tell you, of my own knowledge, that not only is there no exaggeration, but that the truth is not half told. Indeed, I believe it would be impossible for pen or tongue to adequately describe the unutterable life-long misery in which the very poor of the great cities of the Old World and America drag out their wretched existence. Is it not absolutely appalling merely to think of an almost lifeless infant seeking to draw sustenance from a mother dying, if not already dead, from starvation? or to contemplate people lying on the same miserable bed with the bodies of their companions out of which the life had passed for several hours? or to know of a whole family eating, drinking, sleeping, working, in one small room in company with a corpse for fifteen days, because they could not find the means to bury it? Yet these things have taken, and doubtless are still taking place, hard by the palaces of the wealthy. These are wrongs that cry to heaven for vengeance, and they must, and surely will, by some means or other be remedied before long.

But you say, "What has all this to do with your subject, and why do you harrow up our feelings by describing scenes which happily are far removed from us?"

For this reason; I shall have to show you that the same agencies that have brought about these fearful results have been set to work here, that they are now in active operation, and that, if they are not removed, scenes such as I have spoken of, will, before another thirty years have passed away, be enacted in Auckland, in Wellington, in Christchurch, and Dunedin.

On the 10th October, 1825, the first railway—the Stockton and Darlington—was opened. In 1830 the Manchester and Liverpool and other lines followed, and in September, 1838, the first province was brought into railway communication with London by the opening of the London and Birmingham Railway. From that time the progress of railway construction has been very rapid.

The great misfortune appears to me to have been that private people were allowed to construct these great highways and use them for their personal benefit, when they ought to have been constructed by the government

and manipulated in the public interests only.

At the first, so far as I can see, fares and rates were charged on a pretty uniform and fair basis, but as time went on and competition became keener, the

DIFFERENTIAL RATING

system sprang up. I think the great Arch Fiend must have laughed his loudest when this villanously dishonest method of trading was brought into existence, at its door I lay the charge of nine-tenths of the poverty, wretchedness, misery, and crime, that is in existence at the present period.

It is most difficult for me to convey to you any adequate idea of what this system really means. Very few, even among skilled railway men, really understand it, and fewer still have any idea of its far reaching and disastrous effects, on the commercial, social, and moral condition of the people. * * *

To put the matter broadly, "Differential Rating" simply means plunder your customer, when, where, and how you can. Get money out of him by some means, legally if convenient, if not, illegally, but money you must get. When I say illegally, I speak advisedly and with a full knowledge of what I am saying; and to prove the truth of my accusation, I quote the fact that it is an everyday practice of the English railway companys to charge their customers from 300 to 1,000 per cent, above the maximum rates they are allowed by law to charge; and so difficult is it to deal with these powerful institutions that they do not hesitate to publish these excess charges in their rate books, and only charge the legal rates in those rare instances when they have to deal with people who know too much for them. * * * *

From the time of the opening of the London and Birmingham line, in 1838, the progress of railway construction has been great and rapid everywhere. In Great Britain 19,000 miles of railway have been constructed at a capital cost of about £800,000,000. All the chief centres of population have been brought into connection with the metropolis, and from the period mentioned dates the commencement of the enormous growth of the population of London and a few of the great provincial cities, but for purposes of comparison I will confine myself to

THE BRITISH CAPITAL.

Seven years prior to the opening of the London and Birmingham Railway, that is in and at the present time it is stated to be over 5,000,000.

London, in 1881, had 11,260 cabs plying for hire and 1,620 omnibuses, which did between them a carrying trade for the year of 73,000,000 passengers.

Manchester and Liverpool are closely approaching a population of a million each; and a few other centres are also rapidly increasing. This great massing of the population in a few centres I believe to be an evil that has few if any redeeming features

Let me now try and show how the differential rating system has been mainly instrumental in bringing about this state of things.

All the great companies had for their chief object the bringing into connection with London one or more of the large centres of population, or some great seaport, their idea being to secure all they could of the trade with the ever increasing masses of the metropolis, and in order to do that, they gave differential rates in favour of the great city. That is to say, they would carry any class of freight to London at a less rate than they would charge for greatly shorter distances to any other town along their lines.

Perhaps I should state that when the English Parliament first empowered private companies to construct railways, it was not contemplated that they should act as carriers. They were simply to charge tolls for the use of their road and engines, and the users were to provide their own vehicles.

In the Stockton and Darlington Act, power is given to the Company to charge tolls, not exceeding sixpence per mile, "for every coach, chariot, chaise, car, gig, landau, waggon, cart, or other carriage, which shall be drawn or used on the same railways or tramroads for the conveyance of passengers, or small packages and parcels."

Had it been possible to carry out this idea, many of the ills we complain of could not have arisen, but it was not possible.

The clause quoted gives us a vivid idea of the curious notions held about railways in 1823. It is also amusing to remember that when the railway companies were first asked to carry coal, they indignantly refused to do so, and when at length they commenced the trade, they took every possible precaution to conceal it, by carefully covering their coal trucks with tarpaulings, and discharging them behind huge hoardings, so that the public should not see what they were about.

It must be borne in mind that, as the British railways belong to private companies, the only object their directors and managers had in view was to make them pay the largest possible profit, and the public interests

and convenience were only considered in so far as they tended to that end, otherwise, as Vanderbilt more forcibly than politely observed, the public might go to a place not mentionable to ears polite.

The companies granted through rates for two reasons. First, it would pay any company to carry goods, say 100 or 200 miles straight on, at considerably less rates than they could carry them for shorter distances. Next, the companies were wise enough to know that if they could establish a system of massing up the supplies in a few large centres, that they must ultimately get the work of distributing them again from those centres at full rates, and thus goods would pass twice along the lines, whereas, if equal rates were charged, in most instances they would pass only once.

It is not within the scope of my paper to-night to attempt to point out all the evils of this system, but as anything that tends to depress or destroy the trade and commerce of a country, must also have a depressing influence on the social well-being of its inhabitants, it is necessary that I should, to some extent, show how in Great Britain it operates

AGAINST LOCAL PRODUCERS.

Time will only permit me to give a few examples. From Paris to London, 270 miles, the railway companies will take a ton of foreign grown hops for 28s., and from Boulogne to London for 17s. 6d. These charges include transit across the Channel. The charge for carrying a ton of English hops from Ashford to London, 54 miles only, is 35s., or just double the price charged for the 105 miles from Boulogne.

They will carry a ton of fruit from Boulogne to London for 20s., while they charge from Ashford 25s.

For English meat, from Wolverhampton to London, 124 miles, the charge is 45s. per ton, while for American meat the charge from Liverpool to London, 198 miles, is only 25s. Then, foreign wool is carried from London to Bradford, 200 miles, for 37s. 6d., while from Banbury to Bradford, 142 miles, they charge for English wool 40s. per ton.

I have given these few instances to illustrate a principle which pervades every branch of commerce in which foreign goods enter into competition with local products; and you will see that if this sort of thing is to be allowed to continue much longer, it will only be a question of time as to when the foreigner shall take complete possession of English trade and commerce.

It has been said, and, I think, truly said, that the military sceptre follows the commercial sceptre; and if so, how necessary that all this should be speedily altered.

This differential rating system is the silent, unseen, and stealthy, but sure and certain agency, that is at work sapping the very foundation of England's prosperity—gradually reducing her people to poverty, and thus lowering them in the social scale.

It is however to its effects in

MASSING UP THE PEOPLE

in a few large centres, that I wish at this time more particularly to call your attention.

If you will take a glance at any map of the United Kingdom which shows its steam services, both inland, coastal, and oceanic, you will see in how marked a manner they all converge on a few great centres, and how this is more particularly the case with reference to the huge overgrown metropolis.

These are the receiving and distributing centres for the whole country, and to a large extent for the whole world; for the major part of the vast commerce of Great Britain passes through them, and this being the case, you can easily imagine what immense armies of skilled and unskilled labourers must be concentrated there in order to handle and deal with it. These people again require other armies to provide for their wants; they must be housed, fed, clothed, educated, attended to when sick, or unable to work, &c., &c., and so the piling-up process goes on and ever on, to the physical, social, and moral deterioration of the people; for where large masses are congregated together in a small space, there poverty is sure to increase, and crime is certain to be rampant.

Looked at from a capitalist's point of view, the system pursued has undoubtedly many and great advantages. From the severe competition it induces, it lowers the price of labour, and consequently the cost of production, thus leaving a greater margin for profit.

Wherever there are large masses of poor and comparatively poor people, there will always be plenty of openings for the capitalist; but what a price is paid by the general community for the benefit of a few great houses!

I will try and make a little clearer how this differential rating system works. Cotton is carried from Barrow to Manchester, 87 miles, for 9s. per ton. I am not aware what the intermediate rates are, but I am very certain that to any of the intermediate stations full rates would be charged; and thus it would be quite impossible for a manufacturer to start operations there with any chance of being able to compete with his rivals in the large

cities, and thus the manufacturing population is compelled to mass up in a few principal centres, of which Manchester may be cited as an example.

The through rate from Barrow to Manchester is given in order to compete with the rate from Liverpool to Manchester, which is also 9s. for the 31 miles. It is probable that the 9s. for 87 miles does not pay the Midland Line, and in that case they would make an unfair charge on some other industry in order to make up the loss, and thus create another injustice and evil.

We have now to consider one of the most important points, perhaps the most important point, of our subject—the influence of this differential rating system on

THE LAND TENURE.

All writers on political economy are agreed in stating that there is nothing exercises so marked an influence on the commercial and social condition of the people as the ownership and occupation of the land. It is, therefore, very desirable that we should closely study everything that can affect it.

If I am right in my contention that the chief agency at work in massing the people in the large centres is the unfair and pernicious system of levying the transit charges, it is also clear that it is the principal agency in preventing the proper growth of population in the country. At any rate, from whatever cause it may arise, there is no questioning the fact that the growth of the population of the great cities is out of all proportion to that of the country districts.

It is population that gives value to land; consequently, if population moves in the direction indicated, it is clear that land in the great centres must increase in value far more rapidly than in the country districts. Indeed, country lands must and actually have declined in value.

The great capitalists and controllers of the means of transit are well aware of this fact, and have not been slow to work it to their own benefit. They know that they hold in their own hands the means of raising or depressing the value of any district, and therefore it matters nothing to them what happens—they must make money and win in any case.

This constant drain of population from the country districts has reduced the value of land there, and so enabled the large capitalists to buy it up.

Let me give you an instance of how these people work.

LIVERPOOL

Is the second commercial centre in the United Kingdom. The great capitalists saw that if they could acquire cheap land in the neighbourhood of this great port, and construct new harbours and docks, they could make a great deal of money by the transaction. Accordingly, the Lancashire and Yorkshire Railway Company acquired a large quantity of property, and constructed docks and warehouses at Fleetwood. The Furness Railway Company and the Midland Company acquired land at Barrow, and constructed docks there; practically they own the port. Prior to the carrying out of these works, no vessel of over 50 tons could enter the harbour; now they can accommodate the largest steamers afloat. Numerous large industries have been started; splendid public buildings erected; land which was unsaleable at 30s. per yard cannot now be had for £30; in fact, a large city which claims to be a rival to Liverpool has been erected. This, no doubt, is in many respects a great advantage, but Liverpool and other places have suffered in order to build up Barrow.

The land acquired and the works completed, the next object was to divert the trade from Liverpool. This was done by maintaining the rates from that city, and carrying from Fleetwood or Barrow at the same or less rates. Thus, the distance from Liverpool to Manchester is 31 miles, from Fleetwood to Manchester 50 miles, and from Harrow to Manchester 87 miles, and the rate for carrying a ton of cotton from port to city is in each instance 9s.

I do not wish to be misunderstood as saying that the Companies as Companies carry on these operations; but I say that the great capitalists are the principal shareholders, and therefore the controllers of the English and American railways, and that they can and frequently do use them for such purposes,

To give you some idea of how persistently the rates have been maintained against Liverpool, I may mention that in 1881—which is the latest information I have—the Liverpool rates were more than double those from Manchester to Hull, four times those from Manchester to Southampton, and nearly three times those from Manchester to London. In the year mentioned, a firm of carriers made an offer to the Liverpool merchants that if they would guarantee 1,000 tons each way per week, they would cart from the warehouse in Manchester to the ship's side, 31 miles or more, for 3s. 6d. per ton less than the railway charges.

When the wealthy operators have sufficiently depressed the price of real estate in Liverpool, they will, no doubt, invest largely in that city. The rating will then be made in its favour, values will largely increase, and they will be enabled to sell out at enormous profits and then repeat the process either there or somewhere else.

As shewing the effect of the operations of these and other companies on the trade of Liverpool, I may mention that it was given in evidence before the Royal Commission of 1881, that, taking the period from 1869 to 1872, the import and export trade of Great Britain increased by 24 per cent., and the trade of Liverpool by 30½ per cent. For the period of 1872 to 1878, the general increase was 24½ per cent., but the Liverpool increase was only 9½ per cent.; in 1879, the general increase was only 4 per cent., while in Liverpool there was an actual decrease. The action of the companies only came into full operation during the the two last-mentioned periods.

I have dwelt at some length on the case of Liverpool in order to ask this question—If the manipulators of railway traffic can deal in this fashion with the second centre of commerce in the British empire, *what is likely to be our fate in Auckland now that the same agencies have been actively set to work against us?*

This remark applies with equal force to Napier, Taranaki, Wellington, Otago, and other districts.

And I also ask—If the roads, the great highways of any country, are to be left in the hands of speculators, to use them according to their own sweet wills, and for their own pleasure and profit, what can ultimately happen to such a country but commercial ruin, and what can follow in the wake of commercial ruin but loss of social position and happiness, and consequent degradation?

So great is the disadvantage at which home producers are placed as regards their foreign competitors, that their discontent is growing louder, deeper, and stronger every day. They ask, and justly ask, Why should our own roads be used as instruments for destroying our trade and commerce by giving foreigners a preferential use of them? I venture to say that before another ten years have passed away, the British Government will be compelled to exercise their right of purchase, take the railways in charge and work them as they ought to be worked—simply as roads

Such a system of levying transit charges as I propose would, I believe, naturally lead to the

BREAKING UP OF THE LARGE ESTATES,

and, consequently, a great increase in the number of small holdings, for it would pay the large owners better to sub-divide and sell than to hold.

Consider what would be the effect around this city. My proposition is that, going North to Henderson, the passenger fares should be 1s. first, and 8d. second-class; and going South to Manurewa, the same fares. Now, if this were so, and goods freights were dealt with in the same manner, do you not think that all the land within that circle of 30 miles would be minutely subdivided and occupied, instead of being, as a great deal of it is now, a howling waste, a very "Whau?" Would not land for 150 miles away be available for dairy, market garden, and orchard supplies? Would not commercial prosperity be greatly increased? Would not the cost of living be greatly cheapened? Should we not all be able to enjoy many comforts that are now only luxuries for the rich? Would not knowledge be increased? Would not the health of the community be improved, and should we not enjoy a far larger amount of social intercourse and happiness?

We have quite recently been given at our very doors a striking illustration of how the regulation of transit charges can be made to affect social position.

Freight on coal for a 65 mile distance has been reduced 4d. per ton. It will be interesting to trace out what will certainly be the result of this reduction.

The alteration was made some time ago, but the price of coal to all ordinary consumers remains the same. Does any one imagine for one moment that it will lead to an increased production? And if it does not lead to increased production, it must lead to loss of revenue, and that loss must be made good by taxation in some other direction.

Who then benefits? Simply the coal owners and those large buyers who can purchase at the pit's mouth and freight a train themselves.

To a householder using 12 tons of coal per annum, this means 4s. additional taxation. It may not be very much to him, but to the coal owner, the hundreds of thousands of fourpences mean a vast deal; they add greatly to his wealth, and thus elevate him in the social scale at the expense of the community generally.

ONE GREAT EVIL

Of the present system is the forcing into existence of industries in situations and districts that by nature are not adapted for them. This is done by giving a differential rate" in favour of any manufactory that the railway managers think is likely to bring work to their line, or increase the value of property in which they may be interested, and as soon as they cease to be interested in fostering such industry the rates are raised and it is ruined. If fares and freights were uniform, industries would spring up in their natural centres; these, according to their kind, would be spread all over the country, *and thus both population and wealth would be more evenly distributed*, to the great social advantage of the community.

Another, and perhaps the greatest evil of the present system is that it absolutely

CRUSHES OUT THE SMALL PRODUCER.

I believe that the small producers are the back-bone of every country; and if you take out the back-bone, what have you left? If you want to raise the social status of the masses of the people, you must give every encouragement to small producers by making it easy for them to acquire land, and then giving them facilities for the transport of the produce of their small farms and factories. At present *they are charged from four to ten times the rate charged to large producers*, whereas they ought only to be charged such extra rate as would pay for the extra cost of handling.

We all know what the small producers did for France in her day of trouble, and we have in our own Colony a good example of how a district may suffer by their absence. How often have soup-kitchens had to be established in Canterbury? and why have they been obliged to establish them? Simply because the great bulk of the artisan and labouring class there are dependent on a few large producers. If they had their own small holdings they would be able to maintain themselves when out of work; but they have no houses of their own for these reasons—Land near the large centres is too dear for them to purchase, and if they could, the means of transit are too dear to enable them to live at any distance from their work, I have mentioned Canterbury, because there is in that province a less proportion of small to large landowners than in any other district, and because there has been there a more frequent occurrence of distress among the poorer classes. In Auckland we have the largest proportion of small producers, and we suffer the least from these periodical depressions.

If transit charges were made much cheaper than they now are, a very great boon would be conferred, not only on the working classes, but on manufacturers and farmers, because it would enable

LABOUR TO MOVE

to whither it is wanted, at the time it is wanted, and it would enable workpeople to travel much longer distances in search of employment

This question of shifting labour is one of vast social importance, and it ought to be most carefully considered.

By far the greater portion of the poverty in the great cities of the old country is owing to the inability of the people to obtain work within the distance they can travel over.

You ask me what is *the remedy* for all this evil, and how is the social condition of the masses to be elevated? To me the answer appears to be a very easy one. It lies in the words *Uniform Rating* as opposed to *Differential Rating* and in bringing transit charges down to the lowest possible point, instead of pursuing the present system of wringing from every customer the utmost farthing.

By Uniform Rating, I do not mean an equal mileage rate in every instance, nor do I mean that goods of all classes should be carried at the same rates. I simply mean that all men and all districts placed under similar circumstances should be treated in the same manner. Under the present system, any six men requiring similar services rendered are liable to be charged six different amounts.

If as I propose, fares and freights were made uniform, and reckoned by stages instead of by mileage, a great deal of the massing-up evil would be got rid of, for it would manifestly be to the advantage of the railway owners to deliver at the nearest points within those stages,—indeed the only advantage left for running through would be the avoidance of stoppages. If, too, a man could get himself and his produce carried to any point, say within a distance of 20 miles, as regards cost of production, it would matter little to him whether he were 3 or 20 miles out from his market town; the time occupied in transit being the only thing for or against, in either case.

When freight is reckoned by mileage, every mile saved lessens the cost of production, and consequently induces crowding upon the centres.

Reckon by stages and you not only do away with this great social evil, but you go a long way towards solving the greatest of all social problems—*the bringing about a more equal distribution of wealth. For you must see that if transit charges were the same over any given space, that all land within that space of the same quality and useable for the same purposes, would be of very nearly equal value.*

I believe it to be wrong, and a cruel injustice to the people, for the Government of any country to allow its railway to remain in the hands of private speculators, and to be used by them for their personal profit and advantage, and that, so long as they are so used, the great mass of the people must suffer socially; and if this is the case when the railways belong to private companies, how much more is it so when, belonging to the whole community, they are made to serve private as against public interests.

How unutterable is the folly of allowing men, whose only object is to make money for themselves, to levy as they please a direct embargo on the transit of the people and produce of the country. What can be the ultimate result but commercial and social ruin? *Those who rule the roads must rule the commerce of the*

country. They hold it in their hands with an iron grip.

Remember that railways are a new institution. It is only half a century since they were introduced, and not more than 20 years since they were fully developed. We have not yet felt the full effects, it is the next 10 years that will try us; and I say that, during that period, one of two things will happen—either a complete change in the system, or commercial and social ruin such as we have never seen before.

I have endeavoured to show that, by the introduction of steam power, the commercial and social condition of the people has been vastly improved. And why has it been improved? Simply because steam has given us greatly cheaper and more speedy means of transit than we possessed formerly. Therefore, it appears to me to be evident that if we could make a similar reduction in cost and improvement in the means of transit, that a similar improvement in social affairs must also take place.

AS REGARDS SPEED.

On land it is very doubtful if we shall ever be able to travel with safety at much higher speed than we do now; but we can, at any rate, do a great deal as regards the reduction of cost. As to ocean travelling, I believe it to be only in its infancy, and confidently expect that before another fifteen years have passed away, the average time consumed in a journey from here to London will not be more than fourteen days. And I think if that could be done, it would mean a vast amount of social happiness and educational advantage. If we could go to London, spend a month there, and be back here within two months, what a number would make the journey for one that does now!

CONCLUSION.

Consider for a moment how refining are the influences of travelling, and gaining a knowledge of other countries and peoples, how it enlarges the mind and feeds the intellect; how it knocks off the rough angularities of a man's character; how it smooths and polishes him; how it teaches him to honour and respect his fellow-men, even though they may speak a foreign tongue.

What a different feeling there is now among the different nations of the world; how we have learnt to respect each other! What a change has come over the feelings of the Mother Country towards these colonies within the last few years! And what is all this due to? Simply to the facilities which have been afforded for travelling with speed, economy, and comfort, which have enabled men of position, education, and influence to come and see for themselves that we are not the beggarly, ignorant adventurers that they once took us to be.

I remember, not so very long ago, seeing the walls of London placarded with a statement, in letters three or four feet long, to the effect that English colonists had strewn nine miles with the dead bodies of men, women, and children murdered in cold blood; and I am sure that 99 out of every 100 who read it believed the foul untruth, which they would never have done had the means of transit been as they are to-day.

If it be true that travelling exerts a refining and humanising influence, how necessary it is that we should bring the means of travelling within the reach of the masses—of what are sometimes called the lower orders. I believe that nothing would tend so much to improve the relationship of class to class, as more frequent means of intercourse. I believe that there is greatly more good than evil in the world, and that if we were brought more often face to face with each other, that we should grow more and more in each other's esteem.

The old? old Book speaks of a time when men shall run to and fro, and knowledge shall be increased; travel and knowledge were then linked together. Travel and knowledge are now linked together; travel and knowledge always will be linked together. Therefore, I say, give us the means and let us travel.

Samuel Vaile.

AUCKLAND,

14th September, 1882

Auckland:

Wilson's And Horton, General Printers.

1886.

Taranaki and its Resources.

Written by the request of the Mayor and Borough Council of New Plymouth.

"He who seeks the mind's improvement, Aids the world in aiding mind: Every great commanding movement, Serves not one, but all mankind."

By W. Irwin Grayling.

1886.

New Plymouth: Printed at the "Taranaki Herald" Office, Devon Street.

Egmont Park—"The New Plymouth Recreation Ground"—From a photograph by W. A. Collis, New Plymouth, Taranaki.

Preface.

The object of the following pages has not been so much the supplying of a detailed account of the various towns of the Provincial district, as to bring forward in strong relief, the marked progress, that by energetic perseverance has been crowded into the lapse of a few years; and at the same time to convey, by inference, an idea as to the requirements of those who wish to form a home, through the aid of the peculiar specialities of Taranaki. These may simply be enumerated as Thrift, Business tact, Persevering energy, and above all a certain amount of practical knowledge of the work to be undertaken.

A little consideration will convey to thinking minds the folly of entering upon farming operations without first having calculated both the cost and available means.

There is no room to doubt but that every district of New Zealand could tell its own tale of gradual advancement similar to that which an endeavour has been made in the following pages to depict.

The stability of all countries is in direct proportion to that of the smaller ones which collectively form the whole.

The figures representing population; and exports, are for 1884; at the end of the work those of the present time will be given.

W. Irwin Grayling.

Egmont Village,

May 24th, 1886.

Taranaki and its Resources.

The beautiful and picturesque Province of Taranaki is situated on the West Coast of the North Island of New Zealand, being by sea 180 miles from Wellington, 120 from Auckland, and 1300 miles from the leading ports of Australia. The Mokau River forms the extreme northern boundary, and the Patea the southern, giving a continuous stretch of some hundred miles of coast line, offering but inefficient shelter for vessels. Southwards the Patea River will admit small craft, whilst Opunake, half way towards New Plymouth, has the anchorage of an open roadstead. Until recently the same remark would have held good of New Plymouth. The remedy for this state of affairs will presently appear. Passing northwards, some ten miles from New Plymouth, we reach the Waitara River, where determined and successful efforts have been made towards improving the navigation by means of a mole run out from the southern, bank. The Mokau and Urenui also admit of sea communication by means of small craft.

Although the province is mentioned as possessing 100 miles of sea coast, in 1860 the land held by the Europeans consisted only of some 74,000 acres, situated chiefly in close proximity to the sea. Reaching from the Jell Block some five miles northwards of New Plymouth, to a short distance beyond the Waireka Hill, about [unclear: f] miles to the south of the town; this with the isolate block of Tataraimaka, giving the Europeans a coast [unclear: lin] of only twelve miles. At this period the European population did not exceed 2500.

With these facts before us, we have but to [unclear: gs] around to find that, notwithstanding the many [unclear: drawbae] attendant on the war that have both directly and indirect hindered her, a comparison of the present with the [unclear: p] will evince progression in a most favourable point of view; and this success has

solely resulted from [unclear: ti] soil coupled with an almost unsurpassed climate, [unclear: unailb] by the adventitious help of gold or other minerals.

In 1860 the Town of New Plymouth, with [unclear: t] villages of Bell and Omata, formed the only centres. 1885 the chief towns are: New Plymouth, Waitara, [unclear: Pa;] Hawera, with the smaller towns and villages, Bell [unclear: Blo.] Omata, Oakura, Okato, Warea, Parihaka, [unclear: Rah] Opunake, and Manaia. These are situated on the [unclear: c] By the inland line, Inglewood, Waipuku, [unclear: Midhi] Stratford, Eltham, and Normanby. These form so [unclear: mi] centres for the accumulation of the settlers' produce, [unclear: i'] as the country is gradually opened up, the business portance of each position will be greatly enhanced the course of a short time, by the inland route and continuation of our present railway, there will be [unclear: dir] communication with Wellington, Napier, &c., &c., [unclear: wh] the telegraph offers a means of communication with parts of the world.

Outside mere business matters, each centre has [unclear: provis] for secular as well as the religious instruction of people, almost every denomination possessing an [unclear: organi] ministry, with church and school accommodation Sunday scholars, added to which many neat and [unclear: co] modiously constructed halls have arisen, serving the [unclear: dot] purpose for social and public gatherings, and in some few instances well selected libraries of books have been established.

Education.

In conjunction with other parts of New Zealand, Taranaki is a partaker in the amount annually voted by Parliament towards "Free Education."

In the County of Taranaki for the year 1885 the number of children on the rolls of the various schools was 2261, yielding a working average of 1609; the number of teachers being 60, distributed through 35 schools.

Including teachers' salaries the amount spent was £9483 11s. 3d. (This includes only the Counties of Taranaki and Clifton.) The doubt arises whether the high pressure so ardently pursued at the present day yields all the results that could be desired. The knowledge so hurriedly administered is too like a tender plant, forced by an undue temperature, a few green leaves shoot forth with apparent vigour, which, from the need of a thorough rooting, shrivel, and die, when exposed to the outer world.

Thrift of the People.

This is a subject above all others that conveys the most correct idea of the actual position of the settlers.; In 1884 the returns of the Post-office Savings Bank at the head office of the County, New Plymouth, were:—

Only a portion of this amount can be considered as representing the savings of the people, as the Bank is oftentimes used as one of convenient deposit for trust moneys, &c., that may be required at short notice.

The Gas Works, Freezing Works, Sash & [unclear: i] Companies, various Dairy Factories, Building, [unclear: In] ment, Friendly, and other Societies bear ample [unclear: testis] to the soundness of the financial position of this [unclear: dis] whilst through its landed estate it possesses the [unclear: me] an ever-advancing prosperity.

The correspondence will convey some idea [unclear: o] status with the outside world:—

A stranger in his wanderings cannot fail to the large number of pretty, healthy, and ncatly-[unclear: d] children, whilst in no direction can be found either [unclear: s] or want. On the contrary, on any road that [unclear: n] visited on a market day can be seen a success farmers driving their own comfortable vehicles [unclear: te] the town. Ask nine-tenths of them the amount of [unclear: o] they had invested in their farms, and they could [unclear: wis] greatest truth state but little more than their [unclear: energ] forethought. It is true but few have spare money, [unclear: b] arises from a plethora in production. Such a fact [unclear: m] direct attention to measures for changing this [unclear: st] affairs, which may be considered in conjunction [unclear: wi] advantages derivable from a well organised

Chamber Of Commerce.

The members of such an institution would ample scope in ascertaining the ruling prices for products in the leading markets of the world, and in a great measure prevent the heavy losses that times accrue from the too great dependence [unclear: upo] source of outlet. By the rapid means of [unclear: teleg] communication now available, the requirements [unclear: o] [unclear: rket] could be satisfied, and from the extensive fleet of [unclear: st]-class steam vessels now in these seas, freight at once [unclear: amanded] for any port.

Petitions to the Government emanating from such a [unclear: amber] would carry an influence which the individual [unclear: ld] not hope for. A case in point at once offers itself in [unclear: nection] with the present unfair rates for the carriage of [unclear: ek] and timber by our railways.

The Provincial Landed Estate

The Province of Taranaki is divided into two land [unclear: tricts]. Mr. G. F. Robinson has kindly supplied detailed [unclear: ormation] of the first, which includes the Counties of Taranaki and Clifton, which he states approximate to the [unclear: th:—]

[unclear: e] balance will be the Mountain forest reserve and broken [unclear: ntry,] unlit for settlement. At a somewhat rough [unclear: esti-te] the lands in the hands of the Europeans and improved about 320,000 acres.

Capt. Wray has kindly supplied the following notice the lands in the second district, which include the [unclear: inties] of Hawera and Patea:—

Industries.

Many considerations require with care to be thought in treating on the industries that can with advantage introduced into a comparatively new and sparsely inhabited country. It may be accepted as a general [unclear: n] that both in the arts and manufactories, where perfect coupled with economical production is the [unclear: desiderata] trained specialists alone will be found capable of [unclear: compcr] with practical workmen of older countries; and [unclear: ap] thoroughly trained men become too well established their own homes to risk the uncertainty of foreign [unclear: pt] To this may be added the spasmodic supply of [unclear: suitr] labour.

By these remarks it is by no means intended to the damp over the introduction of local industries; but' point out, before risking a venture, the necessity of [unclear: cal] in the guiding aid of the political economist. With climate, soil, water power, fuel, and in some [unclear: t] abundance of raw material, this part of New Zealand certainly pre-eminently adapted for a manufacturing [unclear: ce] more particularly when we consider the means of [unclear: sup] for a dense population through the food-producing [unclear: po] of the country.

Commencing with the industries of New [unclear: Plymco] we notice first,—

Chrissmas and Company's Tannery.

The leather manufactured by this establishment its excellent quality has been awarded by the [unclear: Tar] Agricultural Society a special prize, while several [unclear: pai] have been sent to outside markets, including England The machinery consists of a 5 h.p. engine, rolling [unclear: mac] with all the requirements for carrying on a [unclear: consid] trade. The tanning agent chiefly in use, is the [unclear: bark] the Australian Wattle. In some parts of the [unclear: s] the objections raised to the cultivation of Wattle have been from its liability to [unclear: destrns] from worms. Breakwinds of Wattles have been [unclear: r] from seed sown broadcast, they flourish and [unclear: shot] symptoms of insect attacks, or premature decay, and this opinion is grounded on the careful observation of some years. In the neighbourhood of a plantation there is a tree growing, which notwithstanding its age bears evidence of perfect health.

The large number of hides that will be in the market as a resultant from the Freezing Works offers a wide field for this branch of industry. In many spots the wattle might advantageously be raised, and an inexpensive experiment could be tried on portions of the railway line. This subject is one of unusual importance, as Taranaki yields [unclear: no] tanning material capable of replacing the wattle. The [unclear: towai] can alone be considered as an auxiliary, whilst the timber of the rimu, or red pine, is too valuable to allow of the tree being felled at an improper season for the sake of its bark. The abundance of raw material, coupled with the other requisites, lime from Mokau, and the excellent quality of the water, should induce an earnest endeavour towards obtaining locally grown bark.

Sash and Door Compant.

Although known by the above title, in reality it turns but from its works every requirement in timber, including butter kegs, tallow casks, &c., &c.. At the establishment [unclear: nay] be seen most of the modern labour saving machines, [unclear: he] motive power being derived from a 16h.p. high-pressure [unclear: mgine,] and a water engine, fed from the water works. At Ngaire, thirty-four miles by rail-road, the Company have an extensive sawmill, to which are attached planing and moulding machines, worked by a 25h.p. engine.

Shuttleworth Brothers' Crushing Works.

These works are chiefly interesting as attracting attention to Warner's annular wind engine, which has been found a most effective and economical motive power, yielding, in accordance with the strength of the wind, from 4 to 8h.p. It is used chiefly for crushing bones, corn, oats, &c., &c., also for cutting chaff, and sawing light

timber.

Okey and Asher's Iron Foundry.

At which work of considerable weight can be cast, finished and fitted.

The Henul Iron Works

Stand forth as a monument of energetic determination, and there is no reason to doubt, that the time is not far distant, when the vast magazine of raw material on our beach will be converted into a marketable commodity, The superabundance of the iron production of the world, at the various manufacturing centres, has alone checked the full development of this important industry. Should the present mining operations at Mokau reveal the existence of a caking coal, capable of being used for furnace work, more favourable results may be anticipated.

Ward's Cooperage.

The owner of this old establishment has met the advance of the times by the introduction of machine aid in the construction of butter kegs, tubs, and other casks. The machinery is worked by a water engine. Timbers in use for the kegs and casks, are tawa and kauri, the former from its freedom from tannic acid, should, with ordinary care, tend to making the keging of butter a matter of less risk.

Gas Works,

Within the last few years have been constructed by a public company, replacing, to a great extent, the inefficient lamps of the past. The waste products from the retorts may, one day be the means of swelling the number of industries.

Water Works.

These have been erected under the supervision of the Borough Council, a water rate being levied on all house property within the borough. The water is raised by means of two force pumps, worked by two turbine wheels, to the summit of a high hill, upon which an extensive concrete reservoir has been constructed. At the late fire in town, had it not been for the plentiful supply of water, the greater portion of the town must have been destroyed; whilst Dr. Leatham attributes the absence of once prevalent diseases, to the now abundant supply of comparatively pure water.

From the altitude of the works, a pressure is obtained of over 100lbs. to the square inch, yielding a force which is applied to the working of several water engines. At a future day, by means of some of our numerous rivers, water may be led into town influenced by the unaided action of gravity, and thus supply a most inexpensive motive power. Under ordinary circumstances, water, from the quantity required, is far from an economical force.

Harbour

Although not classed with the industries, is a great aid to their introduction. From the first arrival of the Europeans, the absence of a harbour has been felt as a serious drawback, the expense attached to shipment in an open roadstead, practically preventing the export of such articles that possessed a high market value. Where a vessel can be loaded from a wharf, minor articles put on board either as dunnage or freight may be the means of establishing many light industries, to say nothing of the vegetables, eggs, butter, milk etc., etc., required for the crew and passengers. A few ships constantly in harbour would give a value to suburban sections.

The pier, now slowly stretching its length seawards, has not been planned and built without many difficulties, and much of somewhat selfish opposition, that fortunately, has yielded before determined action.

The Breakwater is situated two miles to the South of the town of New Plymouth, in the neighbourhood of some bold landmarks, known, from their shape, as the Sugar, loaves; they act in breaking the force of the heavy seas and in yielding material for the construction of the works. To the present date, 1466 feet out of 2320 have been completed; the width on the surface is 34 feet, with a 42 feet base; solid concrete blocks of some 26 tons in weight have been placed on the inner and outer edge; the centre being filled up with rubble and concrete. On several occasions has the stability of the structure been most severely tested, during heavy storms, the wave force yielding a sufficient power to wash the unfixed heavy blocks into the sea, and to wrench the iron rails

from their fastenings; but in no instance has the stability of the structure shown the slightest symptoms of yielding. Vessels of considerable size are constantly berthed alongside the pier; the depth of water at low spring tide being 14 feet 6 inches to 15 feet, allowing the fall tide to yield a rise of 12 feet, 26 feet will result. For the construction of the works, by the sanction of the parliament, £200,000 has been borrowed, on the security of one fourth of the land revenue of the Province. The work is gradually progressing under the superintendence of the Resident Engineer, Mr. G. Rhind, C.E., late of Aberdeen and Aabroath.

Waitara Freezing Works.

These extensive Freezing, Chilling, and Canning works, now in operation, directly influence so large a portion of the whole of the Province as to call for something more than a passing remark. With the means at their disposal, the company are prepared to slaughter sixty bullocks and three hundred sheep a day. A considerable quantity of the meat will be canned, the balance shipped to a foreign market. It is very evident that these works, coupled with a fair railway rate, will develop an amount of prosperity scarcely at the present time even imagined. Eventually, all kinds of food, including milk, fish, etc., may be sent forth as preserved articles, whilst thousands of tons of freight will be added to the already excellent shipping business of the Waitara. It is proposed that the blood from the slaughter-house should be led into a tank, fitted with a trap door, so as to allow of its flowing into the river at ebb tide. The light soils of this Province being somewhat deficient in phosphates, it is greatly to be regretted that means are not adopted towards rendering this waste material a boon to the farmer. A furnace might be constructed, in which the blood could be thoroughly charred, which would make it of easy carriage to where it could be intermixed with farm yard manure. It is true, by this process, the greater portion of the nitrogen would be driven off, still the phosphates would remain.

The Mokau.

The Mokau river is situated thirty-six miles to the northwards of the Waitara, and some eighteen miles beyond the Pariniuhi, or White Cliffs: presenting as they do an almost perpendicular face, approaching 900 feet in height, form a landmark visible from a long distance. In early days, the Maoris ascended to the high lands at a lower portion of the cliff by means of supplejack aids; and with a view of allowing cattle to be taken overland to Auckland, an attempt was made towards driving a tunnel on a gradual incline, but the outbreak of the war in 1860, unhappily stayed, not alone this venture, but brought all material advancement to a standstill. At the present time the ascent is effected by means of a zig-zag path, constructed by the Constabulary, under Captain Messenger. It is possible to avoid the climb by keeping round a bold headland, but there is a risk of being caught by the flowing tide. Several accidents are recorded from this source.

The river shares with most others the disadvantage of a shallow bar at its junction with the sea, with fairly deep water inside. Limestone, excellent clay, and coal, have long been known as existing in abundance, and a company is now engaged in the full development of the entombed riches; the coal and lime are now finding a ready market in New Plymouth and elsewhere. The coal field is reported to be of vast extent, whilst the lime, both in quality and quantity is spoken of as all that could be desired. The country of the Mokau is rough and greatly broken, interspersed with valleys of some four to eight miles in area. The soil is good, with clay sub-soil, offering from the abundance of shelter from the winds, fertile spots for the growth of fruit and hops. A railway, from the structure of the country is a possibility.

The Waitara.

The Waitara is situated on the South bank of the Waitara river, the surrounding country being exquisitely adapted for pastoral and agricultural purposes, whilst the river, through the persevering energy of the inhabitants, is fast taking the shape of a safe and commodious harbour for coasting steamers and sailing vessels. The following abstract of work carried out, with the future intentions, has been kindly supplied by Mr. John Thomson, C.E, the Engineer of the works. The amount spent on wharfage plant, tramway, goods shed, sand reclaiming, drainage, training walls, steam tug, etc., etc., has amounted to £20,000.

Mr. Thomson further adds:—The general idea underlying the harbour works as far as they have been carried out, is to direct and train the ebb and flood tide in a fixed channel. Nothing has been done in the shape of breakwaters or giving protection from the sea. Sir J. Coode has laid down lines for protective works, carried out into about three fathoms at high water. The channel has been quite straight out for more than six months past, that is through the very driest season, so I expect it to be very good when there is a little more water in the river.

The following abstract of the live stock shipped from the river, bears ample testimony of the progress the district is making.

WAITARA HARBOUR.

Year. Number of vessels entered. Tonnage, entered tons. Dues, not including rents. 1879 8,523 ...
1880 9,899 ... 1881 16,062 ... 210 ... 20,003 £1,567 Steamers 18,629 1883 244 278
20,396 £1 778 Sailing craft, 34 1,767 Steamers 20 046 1884 312 348 21,923 £2,079 Sailing craft, 36 1,877

Export of Live Stock.

The gradual increase from year to year in the shipment of live stock will tell its own tale, and as the lands of the Province are occupied, cleared, and grassed, the supply for all practical purposes may be deemed inexhaustible.

Town of New Plymouth.

The streets run parallel with the coast, with cross streets passing the main lines at right angles. It is a pretty, cleanly town, and notwithstanding its unpretending buildings, always strikes the stranger, from its homely appearance. In 1860, the whole province had but 2,500 inhabitants, spread over its 74,000 acres, whilst the borough, now, alone numbers, 3,310. The effects of the energetic co-operation of the citizens with that of the Government meets the eye in all directions Neat Churches of the various denominations; whilst the police report an almost entire absence from crime. A Public Hospital, where, on an average, some eight individuals find attention and comfort when required. The Alexandra Hall, built by a company, for theatrical concerts, and other purposes. Government Offices, ample Hotel accommodation, Breweries, with the embryo of a Public Library, which, under the auspices of the Borough Council is gradually springing into life; and above all the beautiful and picturesque Recreation Ground, with the lake, crossed by a bridge of graceful structure; and Egmont's grand snow-clad cone in the far distance. Again, in the place of leaving the beach on a man's back to the boat, there will be when the branch line now in progress, is completed, a choice, by rail, of two ports of departure, the Waitara and the Breakwater. From either can embarkation be made with comfort. The Iron-sand, so abundantly piled on the beach has before been alluded to, as a future source of wealth. Petroleum shows itself in constant but small quantities in the neighbourhood of the harbour, the rocks taken from a depth, are, by its influence, covered as if by a film of gold, whilst at low tide it may be collected from the hollows of the rocks.

Hawera, the City of the Plains.

The establishment of the settlements of Hawera and Patea is of a much more recent date than that of New Plymouth. It was only at the close of the war that the land was occupied by the military settlers: these pioneers, for the most part, sold their grants of land, leaving for other parts; still a fair sprinkling have remained, and these may be considered in every respect the backbone of the district. In 1880, the famous Waimate Plains were surveyed, divided into sections, and placed in the market, where the flourishing settlement of Hawera is now established. This city of the plain, as it has not unaptly been termed, has a population of over 1000, and this is still increasing. It is the central market of an unusually fertile district, celebrated alike for its general agricultural yields and the growth of fat stock. The streets of Hawera are nicely kept, being-well gravelled and curbed; the town has been built on level table land, and is approached by railway from Wanganui and Patea, southwards; and New Plymouth and Waitara, from the north, commanding either of these ports, whilst a capital metal road across the plains, leads to Opunake; Hawera being considered the commercial centre of the district. The town, some few years since, was formed into a municipality, and the public and municipal buildings, churches and places of business, would be creditable to a town of much larger dimensions. But in this transitory world, it is as well not to look for perfection. Hawera, with all its marked qualities, has one drawback in the cold, bitter, and keen winds that pour over the plains, destroying orchards and gardens, compelling the residents to look to the more genial climate of New Plymouth, which lies northward of Egmont, to make up for the deficiency. As an instance of the severity of these winds, the hardy blue gum looks sickly and weedy, and is gradually dying out from the old plantations; on the other hand, oats give good returns, frequently 70 to 75 bushels to the acre; wheat, 50 to 60; potatoes, 15 to 20 tons, These are not exceptional cases, but the records of good crops made by several settlers; the results are from unmanured lands,

Regarding industries, they maybe said to be quite in their infancy, and amongst them a number of excellent cheese makers are banded together into companies, one establishment having about twenty tons ready for export. Several dairy factories are in process of organisation under the control of various companies. The flax industry at Opunake is flourishing,. The Messrs. Wagstaff Brothers turn out large quantities each month; much

of this is used by local tradesmen, and the surplus exported. The Bee industry is largely on the increase, Messrs. Epping, and others in the neighbourhood of Normanby, export a considerable amount of honey each season.

A Sash and Door factory is established in Hawera, and this, with a Saw Mill belonging to the same company, employs about thirty hands. The goods turned out are of first rate quality, and an export trade is opening up; and although no dividend has been declared, a good profit has been carried forward, each balance, by way of reserve fund. The staple product of the district is however, stock,—fat sheep and cattle, The production in this respect is something marvellous, and ever on the increase, as each year more land is laid down in grass. About 12,000 acres have been newly laid down during the last two years: and every season large tracts of bush land fall before the axe. The land being at once sown with grass, extensive flocks) of sheep, driven from Napier, and other parts, soon fatten on the luxurious grass of the district.

Patea.

The most southern town of the Province. Patea, after three separate times changing its locality, has at last taken root on an elevated flat, commencing about a quarter of a mile from the bridge that crosses the Patea river. From this position, the dull monotony of the continuous plain is somewhat broken, by the ubiquitous Egmont, the cone of which is in a direct line, about forty or fifty miles distant. The Town itself bears evidence of considerable constructive talent in the first projectors, as there are, in the well formed streets, many neat and respectable buildings. Almost every ordinary trade has its representative; whilst Places of Worship, Public Hall, ample Hotel accommodation, with Government Buildings, Railway Station, Telegraph Office, attract the eye of the stranger.

The river Patea adds greatly to the importance of the town. The Shipping Wharves, 1000 feet in length, are in the hands of the Railway department. Patea is a port of entry, being worked in connection with the goods department of the railway.

Patea, the county town, is the meeting place of the various boards, Saturday being considered as the market day. The Patea river is a compact and steady flowing stream, branching at about thirty miles from its embouchure, one branch originating in Mount Egmont; the other, and reputedly the wider, rising from the interior. The river, with the exception of occasional shallows, will comfortably carry canoes for thirty miles. The tide flows upwards, for a distance of fifteen miles, and ordinary rowing boats, and punts for snagging, can with care, be taken twelve miles to the first shallows.

In July, 1877, a Harbour Board was formed, and proposals made for river improvements. The tortuous state of the channel at the entrance of the river, rendered the navigation, even for small craft, a matter of difficulty, and shipping casualties were far from infrequent, The construction of a training wall, commencing within the eastern head of the river, and extending 1,200 feet seaward, fixed the channel, and by narrowing the entrance, increased the tidal scour, and depth of water over the bar. The Harbour Board spent £2000 on new wharves, erected a light house and continued the work of snagging, as required.

In connection with other parts of the Province. Patea will eventually take its position as a manufacturing centre. The abundance of excellent brick making material, will always be a source of wealth; and until lately, meat preserving formed an industry of importance, but, unhappily, the buildings and appliances have recently been destroyed by fire.

The chief exports are, wool, tallow, and hides, with some grain. Root crops thrive and fruit is plentiful, and will, ultimately, form a marketable commodity. Grazing is the chief pursuit of the district; the abundant grass-yielding lands, coupled with yet undeveloped industries, offers a bright future for this part of the country.

Increase of Population.

From whatever standpoint taken, the advance [unclear: i] the commercial and social position of the Province has been unusually rapid, as before stated, resulting [unclear: sole] from the soil and climate, without the stimulating [unclear: aid.] gold, or other exciting cause; and the healthful [unclear: increa] of population will add strength to this assertion, The following will give the numbers for 10 years:—

For the present year (1885). basing: our calculation on the above figures, we shall not be far in error in computing the population as above 17000

Climate.

The beautiful Egmont with its snow-capped cone greatly modifies the climate. On its inland side, the south-east wind, surcharged with watery vapour, unburdens itself, giving rise to heavy showers, and passing over to the New Plymouth coast as a dry wind, whilst the N.E. acts as the reverse, being wet to the seaward and dry inland, The temperature of the district is never excessively warm in summer or cold in winter. To a limited

extent the floral and vegetable productions of a country convey a tolerable idea of the mildness or severity of a climate. Mr. Kidd, whose opinions on such matters should carry weight, states that he is firmly impressed with the idea that Taranaki, if care was taken in gradually acclimatizing, would yield a greater variety of plants than any climate he had ever met with.

At certain seasons of the year the nights are occasionally cold, but this: results from pure radiation, arising from a clear unclouded sky.

Dr. Leatham has kindly supplied the following remarks on the health of the climate: No endemic diseases in the district, no miasmatic influence, no infectious fever. During the 5 years I have been in practice in this district I have seen of measles two or three cases; of scarlatina, none; dyptheria, about a dozen. Varicella and pentunis occasionally occur in epidemics of a mild form, enteric occasionally, and generally can be traced to filth, drainage, sewer emanations. In the five years I have attended about five cases of enteric fever, but since the waterworks have supplied pure water to the town, none have come before my notice. A very frequent complaint was a form of mild typhoid, which evidently depended upon poisonous matter in the form of gas or sewerage in drinking water. The complaint had some of the characteristics of typhoid, but could not be truly called enteric, and for the want of a name I have designated it, colonial fever; but since the introduction of pure water to a great extent this has disappeared. The most frequent ailment is the result of sudden changes of temperature, producing cold, congestion of the liver and internal organs. The liver is excessively liable to become affected. In fact, chronic dispepsia and hepatic congestion are more frequent, and this may be accounted for by the mild, moist, and relaxing state of the atmosphere, joined with badly-lined, ventilated, and damp houses. On the whole, Taranaki, though generally speaking an, enervating climate, is a very healthy one. The chief ailments, consequently, from which the people suffer, are generally brought about by their own neglect and carelessness in hygenit matters by eating food that does not agree with them, and by general disregard of factors of health. When we consider the badlyrlined houses, badly-ventilated, damp underneath, and draughty walls, it is a wonder that people are as well as they are. If we also consider the absence of drainage, &c., &c., the wonder is that we escape a violent typhoid epidemic.

To sum up the opinion thus advanced by Dr. Leatham as to the healthfulness of the climate—there would be almost an entire absence of sickness if people would only act in accordance with the ordinary sanitary laws.

Exports.

The absence of a harbour in which a vessel can in all weather find shelter effectually stays direct shipments to foreign ports, so that Taranaki's exports appear in the returns of either Wellington, Auckland or other convenient port of departure; but this state of affair will soon find a remedy, as arrangements are under negotiation for a monthly service of a 1,400 too steam vessel, fitted with refrigerator and all the modern requirements, to trade from the breakwater. The following may convey some idea as to the quantities, regarding Taranaki's speciality. For comparison sake, the figures first given bear relation to the united colony.

The export of butter from the whole colony in 1873 was 80,864 lbs., valued at, £2,342.

In 1882, from the whole colony, 1,261,568 lbs., valued at £52,080. The quantity of butter shipped from Taranaki from January, 1885, to June 14th of the same year, was 566,760 lbs.; these figures bear only an aproximate value, being taken from weekly published shipping returns. It is not to be doubted that many quantities have been shipped of which the reporters obtained no cognizance; added to which no inconsiderable quantity has found its way from Opunake and Patea. Large as these numbers appear, the yield will year by year increase. Let it be supposed the bush falling of the season to be represented by twenty one hundred acre clearings; and that one hundred acres will suffice for a thirty cow dairy. Five pounds of butter a week to each cow, would give an increase of 150x52x20, or 156,000 lbs. Allowing an equal quantity from addition of milk cows in the established dairies from improved culture, and the yearly possible increase will reach more than 300,000 lbs. It is well to grasp this gradnal enlargement in the supply, and not shut our eyes to the fact that very shortly the immediate markets will be super saturated. This subject will again be introduced when the dairy and co-operation are noticed. The other exports will be cheese, wool, fungus, tallow, leather, hides, flax, preserved and frozen meat, honey, potatoes, and other vegetables, particularly root crops, grass seed, and live stock, not forgetting timber, and hams and bacon.

Co-operative Factories.

Perhaps there is no step that will so effectually aid in the development of markets for batter as the introduction in large quantities of a given brand at once to be recognised by its uniform superiority, and definitely known as "Taranaki butter;" and this can alone be carried into effect by united action in the working of co-operative dairies. Allowing that there are some makers that produce super-excellent butter, the quantity

must comparatively be too small to neutralise the evil effects of the great bulk of an inferior quality that is poured into the market. Let it be imagined that a merchant visits the district with the purpose of purchasing some 2000 kegs, and has to sample everyone, giving an individual value to each. Would not this depreciate the value of the whole? but had the butter been known as a uniform article, the business transaction would have been completed in a few minutes. Again, as regards freight: the shipping business above all others is dependent upon the important factor "time," so that there must be constant quantities in readiness for immediate shipment: and this no set of isolated units could effect.

Old settlers have become so habituated to progressive changes that but little surprise would be felt at seeing a handsome building spring up and known as the Taranaki Butter and Cheese Exchange. This subject will be farther remarked on. The province is naturally divided into two well-defined districts. To the south the Plains, superior in the fattening qualities, and the cleared bush land northwards of the mountain, with its numerous dairies, and thus with a united whole, a reciprocal trade might with mutual advantage be carried out, the young stock being drafted off to the richly grassed Plains for the eventual supply of the Freezing Works, leaving the rougher bush clearings and smaller farms for the production of cheese and butter.

In conclusion, it may without fear of contradiction be stated, that many have thoroughly established themselves as farmers, but there are those, from inadaptability, who have utterly failed in so doing. Taranaki is not a province in which rapid fortunes are to be accumulated, but it is a spot where industry, with rightly-directed energy, coupled with thrift and business tact, will establish that sacred spot, a "home," with an estate as an heirloom for a family.

A settler of some years establishment thus relates the circumstances that first led him to adopt a bush life. Situated in town, dependent solely on his own individual exertions for the establishing in the world of an ever increasing family, and feeling that servitude was alone the prospects of his children, sought the bush with but little capital beyond his strong arm and ever active axe, earning wherewith to pay for land and house, &c., and after a few years of self-denial, with some privations and trials, he finds himself the unencumbered owner of a well ordered and fenced dairy farm, with shed and yard accommodation seldom surpassed. There are several instances of carpenters and other mechanics, with large families, having spent their time, when work has been slack, in establishing themselves as farmers, with plenty of fencing and good shed arrangements; the more delicate members of the family, without undue exposure, are enabled to take sole charge of a dairy whilst the husband is ever ready to grasp opportunities of increasing his means through his legitimate calling. Again, the young in well-organised homes can be trained in thrifty habits, by cultivating the silkworm, honey bee, fowls for their eggs, &c., gathering fungus, and the many minor accessories that are to be found by those who know how to seek.

A glance at the landed estate of the Province, and it will at once be seen that Taranaki has room for many thousands of increase to her present population, and when all are thoroughly impressed with the truth of the golden rule, which has established unity as strength, we may hear tie finishing of the Harbour spoken of not simply as a means of fostering advancement, but as a necessity called for by the requirements of an ever increasing trade. All who do aid in this desirable unanimity of action may be spoken of as those—

"Who scatter plenty o'er a smiling land."

A successful settler has kindly supplied the following valuable information:—

The value of the lands of the Province vary in accordance with situation, quality, and other characteristics, with nearness to New Plymouth, the chief market and port of the district. The land westward of New Plymouth, and originally covered with fern, and in close proximity with the town, is worth from £10 to £15 per acre. South of the town it decreases in value to some half of this amount. In the remote parts of the Province the better quality of fern lands, with improvements, generally consisting of grass, fences, and dwelling-house, is worth from £7 to £10 per acre, or more where the improvements are substantial and extensive. Bush land varies in value with its nearness to main roads (metalled) or railroad. Its value also is much increased by being level, free from swamps, or hilly, broken ground. The price may be from to £4 per acre. Good average land is worth about £2 10s. per acre. If felled, burned, grassed, and fenced, with dwelling-house, it is worth from £4 to £10 per acre.

Over-stocking should carefully be avoided, many evils arising therefrom. Having insufficient food, the stock do not return full profits. From the want of food the stock are inclined to roam and break fences in search of it. From being on the move and unsatisfied, they do not thrive. The grass remaining is unable to make a start for winter supply, and being short and bare, the first rough weather injures the roots and stops growth to a much greater extent than when the ground is protected by a proper growth. The owner having insufficient feed, must sell as winter approaches, and does so at a disadvantage, the markets being at their worst, as keep gets scarce. He is unable to take advantage of buying cheaply. Land overstocked deteriorates much more rapidly than judiciously stocked land.

Cost of bush felling varies, with the amount of work to be done. When the large trees are left standing it is felled for about ten shillings per acre less than when everything but ratas is felled. Ratas are not generally

felled, as when a good burn is obtained most of them will be destroyed. The present price is from thirty to thirty-five shillings per acre for felling everything; twenty to twenty five shillings where pines alone, two feet diameter, are left standing.

The nature of the country and climate is peculiarly suited to all breeds of cattle, from the more tender Jersey to the hardy shorthorn, or Hereford. Where grazing is the object, the shorthorn or Hereford crosses are kept; but where dairying is the chief profit, Ayrshires or Jerseys are found to do well by those whose wish it is to improve on the stock of mongrel breed of cattle usually kept. The splendid condition of the thousands of fat cattle sent annually to the Auckland market attest the capabilities of the soil to grow fine cattle and mature them at an early age.

Long-woolled sheep are more suited to the district than the fine-woolled merino or merino crosses, the rich, and as a rule, level nature of the land, makes the merino too liable to foot rot. Lincolns have not succeeded to the same extent as Leicesters, but the usual stock is a great admixture of both. Where tried the Romney Marsh have been very satisfactory; most especially in the bust, where the rainfall is heavy, and nearly double that on the coast. The black-face crosses have been tried too short! time to form a decided opinion on, but the lambs appeal to scour badly.

Linseed is found a valuable crop on the small scale for home use, it being much used to enrich the skim mill feed to calves, or to help out when milk is scarce. It is especially valuable to cheese makers, who have to rear their calves chiefly on whey. For putting condition rapidly on show animals, there is nothing to equal it. Most farmed now, put in a patch as regularly as their potato crops, Mangolds do particularly well in the back country. The soil is pre-eminently adapted for root crops of all kinds; the staple crops of mangolds, turnips, carrots, potatoes and parsnips being enormous. Large crops of grain can also be obtained, but the rather heavy rainfalls usually experienced about harvest time makes grain growing undesirable. The district is above everything a grazing and dairying one, the two pursuits being joined naturally, owing to the splendid grass growing capabilities of the climate and land, and the plentiful and never-failing supply of pure water in the beautiful creeks and rive abounding in the district and in every farm. Droughts unknown, as are floods, owing to the numerous deep channels to carry off the surplus. The ease with which winter food, in the shape of roots and green feed, to supplement the pasture, is grown, makes a winter dairy very profitable, and should be more largely gone into. Near the coast the grass hardly ceases to grow the year round, but more inland, under the influence of snow covered Egmont and the greater altitude, there is not much growth during June, July, August, and part of September. If not overstocked, the stock will keep their condition without extra food being supplied.

The climate is most suitable for dairying purposes, as there are but a few days on which it requires extra care to make good butter and cheese, in fact with a properly constructed dairy, the weather need not be taken into consideration. The Cooly system of deep setting in deep vessels totally immersed in water at temperature of 40 degrees Far for twenty-four hours has given very satisfactory results.

Fruit growing has been a success at Urenui, where the land is of a heavier kind. The light volcanic soil of the Taranaki district generally is also well adapted for the growth of the apple, judging from the large crops obtained from many varieties scattered over the Province. The sharp frosts that are felt in the higher altitudes around Egmont are a great assistance to fruit growers, as the pest of the orchards, the American blight, is completely killed in winter by the frosts.

Mr. Olson has also given ideas grounded upon years of experience:—For dairying purposes, the Ayrshire is decidedly the favourite cow; no other breed has proved itself so suitable for the purpose. The Shorthorn and Hereford are almost exclusively beef yielding animals, but occasionally one may be found worthy of a place in the dairy; but the exception more than proves the rule. The Jersey is certainly the best butter yielding cow, but ill adapted to the bush country: from, first, a delicacy of constitution; and again, there is a serious drawback in its being unsuited for beef production. The Ayrshire, from its extreme hardy qualities will live where the other breeds would starve, and being active in its habits will readily find its feed in a rough country where the more aristocrat Shorthorn would utterly fail, and although less in [unclear: s] than the Shorthorn, will yield a superior quality of [unclear: bee] and on grazing only would be ready for market some [unclear: s] weeks or two months earlier in the spring than the Shoe horn.

The choice of breed should be modified with the extent of the farm. On large farms where grazing is the prime consideration, Shorthorns would be the cattle selected as a certain quantity of dairy profits can be sacrificed, a this loss would be counterbalanced by the extra worth of the beef.

Year by year as the bush falls, a winter's store [unclear: s] food becomes more imperative, and perhaps oaten hay [unclear: fr] the bulk of its yield is best suited for the purpose, [unclear: wi]; turnips, as a food, dry fodder becomes an essential. [unclear: Rap] though excellent for the season, is difficult to clear [unclear: fro] the ground, springing into life afresh whenever the land re-broken. Luxurious swards are not formed without can and labour. Farmers are too often inclined to rest satisfied with the idea that when they have burned and grassed down their clearings with one kind of grass, that the [unclear: chi] step has been taken towards the

establishment of a fruitful dairy, but this is a sad mistake. Cocksfoot, hitherto by too many has been the favourite grass, which answers so long as the yield of seed was a commercial matter [*unclear*: t] grave importance; but a reasonable mixture of [*unclear*: variets] adapted to climate and soil, tells its own tale in the [*unclear*: mod] favourable dairy returns.

Appendix.

The paper on Taranaki having been penned some twelve months past, a few notes are now appended, in order that the description of our gradual progress may be carried out to date.

Educational.

The returns under this head are for the counties of Taranaki and Clifton, the counties of Hawera and Patea being linked in with Wanganui. The same may be said of the Savings Bank returns; so the detail of the transactions are confined to the Northern counties.

Exports.

Before resuming this important subject, a few remarks, may not be out of place, on the unfair position in which New Plymouth stands, compared with other towns. On inspection of the list of exports that have been sent from the various ports of New Zealand, we find that only a few kegs of butter placed to her credit. The true value of our export trade, presently to be described, will tell a different tale. Very false ideas regarding the smaller districts of New Zealand are spread throughout England and other countries. The following is an extract from the February number of "Nature," describing our fungus:—"During the last twelve years, some 1858 tons of fungus was exported, chiefly from the ports of Auckland and Wellington." The edible fungus has for many years formed an important export from this district; so extensive has the trade in this article been as to have earned for [*unclear*: i] the name of "Taranaki Wool."

The following is taken from the "Taranaki Herald." "The quantity of butter shipped from the port of [*unclear*: Ne] Plymouth from April, 1885 to March, 1886, was 12,373 kegs, weighing 680 tons. About twenty-five per cent, of the butter export of Taranaki is by way of Waitara, and adding their figures to ours would make a total for the year of over 1,700,000lbs The farmers receive on an average nine-pence per pound; and the local buyers receive about ten-pence. This means that last year, about £71,000 came into the Province on account of butter alone."

This 1,700,000 lbs. does not represent the [*unclear*: full] return for the Provincial district, as no inconsiderable quantities are shipped from Opunake, Hawera, and Patea, of which we have no authentic returns; added to these a number of kegs find their way southwards by train. On comparing the year's shipments with those of the whole colony for 1882, we shall find a balance of 438,432 lbs, in favour of Taranaki.

Large as the figures thus quoted are, it must not be forgotten that as yet we are only on the threshold of the future, and that our annual yield is far from its ultimatum. Such rapid growth of trade will impress the imperative necessity for the establishment of an Exchange, which [*unclear*: image not readable] to regulate the advantageous disposal of our dairy [*unclear*: image not readable] for arrangements that will lead to the classification of the butter by a thoroughly competent and [*unclear*: image not readable] person. From the establishment a monthly circular [*unclear*: image not readable] be despatched to all butter importing [*unclear*: image not readable] prices, with stocks on hand.

Such arrangements would affect the existing merchants but little: provided they were men of character, they would be able to hold their stands in the Exchange and to conduct business, both for themselves and others.

The adoption of this proposal would allow of producers receiving the true market price for their goods.

These remarks may be considered as applicable to New Zealand in its entirety. Foreign buyers would be conversant with New Zealand as a whole only, and therefore all dairying districts throughout the colony, should, by means of exchange establishments, endeavour to classify their butter for exportation in such a manner that the superior article, being separate and in quantity, would fetch its true value; whilst the inferior would be sold for what it was worth. So much sophistication, is at present, throughout the world in use, that could New Zealand guarantee the unadulterated purity of her products, the demand for her goods would be almost beyond limit. With her climate and soil, it certainly would not, in a commercial point of view, pay to intermingle foreign matter with her butter.

Stress has been placed on the large number of industrious settlers that have worked out their own independence. A fair number have also embarked capital in their holdings; but those who, by taking advantage of government expenditure, on road making or bush falling, have been enabled to become the unencumbered owners of farm properties, and at the same time to rear large families, are repaying back to the state the money earned at the rate of some twenty pounds a year for each family, in the shape of custom-house dues. This being

granted, the most acceptable bonus that can be given to the settlers, is, a good, both winter and summer road, that will allow them, at any period of the year, to aid in keeping up the supplies for shipment. From numerous instances of marked success, resulting from individual effort, one has been selected:—

Mr. H. Turner, at a very early age was thrown on his own resources: earning his own living by carpentering, bush felling, grass cutting, or by turning his hand to any work that would bring in money; and thus by industry and thrift, has been enabled to establish himself as owner of a 180 acre farm, formerly all heavy bush. He has now 110 acres in grass, the remainder in standing bush. The farm has 120 chains of fencing completed. The buildings consist of a six-roomed dwelling house, dairy, cattle shed, workshop, storehouse, buggy house, and pig house.

In stock he has twenty-two cows, thirty store and young cattle, three horses, eleven pigs, and twenty-five head of poultry,

Most earnest men have their hobby, and Mr. Turner's is certainly his Apiary, upon which he thus expresses himself: Forty-five stands of bees, last season yielded about 1,000 lbs. of honey; twice this amount, it is anticipated will be the result of this year's harvest. Amongst all his improvements, an acre-and-a-half of an orchard has been planted with apples, pears, plums, peach, quince, red and black currants. These will all at one time aid in swelling the amount of our exports.

Waitara.

Waitara cattle export and shipping, have kindly been supplied me by Mr. Cameron.

Stock killed by the New Zealand frozen meat and storage company, from June 4th, 1885 to May 22nd, 1886.

STOCK EXPORTED FROM THE PORT OF WAITARA, 1885.

VESSELS AND THEIR TONNAGE, 1885.

VALUE OF WAITARA EXPORTED AND KILLED STOCK.

Mr. Deacon has kindly supplied the following detail of the transactions at the New Plymouth Harbour, for the year ending March 31st, 1886.

STOCK EXPORTED.

Allowing the same value as the stock shipped from Waitara.

This added to the Waitara and Butter

The other exports of fungus, tallow, wool, hides cheese, butter in boxes, sheep skins, flax, honey, etc, etc, will total an export trade of over £200,000 a year: [*unclear: a*] nearly twelve pounds a head per annum, for every [*unclear: ma*] woman and child in the Province.

From the stock having been charged, no extra [*unclear: vale*] has been given to those killed and prepared at the Waitara.

Harbour.

The total length of the pier to date, June 7th, 1886, is 1800 lineal feet, giving a depth, at low water of ordinary spring tides, of 18 feet and at high water, of 30 feet

On the Queen's birthday, May 24th, Mr. Those King, on the occasion of the opening of the short line [*unclear: a*] rails that connects the harbour with inland, stated:—[*unclear: "Tht*] Mr. McGregor, the Board's consulting engineer, has described the Breakwater as a protection that would [*unclear: yie*] the best artificial harbour in New Zealand, and would include the largest area of smooth water. It was only a [*unclear: fe*] weeks ago that the first English ship came alongside, and in a few hours, discharged 350 tons of cargo; whilst the day before, May 23rd, the S.S. Wakatipu took position [*unclear: i*] the Breakwater with the greatest ease, shipping 1671 [*unclear: kef*]. of butter, equal to 94,958 lbs., 7 tierces of beef, 40 [*unclear: bal*] of fungus, besides grass seed, etc., etc, the value of this first cargo being £4,171.

Between fifty and sixty years ago, the great demand for carraige, arising from the increased production of the factories, gave rise to the Darlington railway; and so it [*unclear: w*] be with the Breakwater, should, unhappily, its advance [*unclear: fs*] the present be checked; so great will be the demand [*unclear: ft*] transport, from the accumulating increase of goods [*unclear: awaitis*] export, that no outlay will be deemed too great for bring it to a satisfactory completion. And, furthermore should the cattle from the well-bred herds of the district be in growing demand in Australia, the continuation of the protective walls will be more than ever needed, as

there is a large extent of country with no direct outlet for shipments to foreign ports.

Mokau.

The latest report from the coal mines is that 700 tons have been sent away, and that arrangements are being made for a vessel to run from the mine to the various ports in the neighbourhood.

Land Purchasing System.

The purchasing is either on the immediate or deferred system.

Under the immediate system, the price varies from the mere cost of survey, as under the homestead arrangement, up to £2 per acre.

Homestead System.

In accordance with the land regulations, the settler makes no payment for the land, the only cost to him being the expense of the survey. On the fulfilment of the conditions, which are five years' residence, the erection of a house, and the cultivation of one-third of the section, if open land, and one-fifth, if bush land, the Crown grant is issued. The conditions regulating the quantity of land to an individual are these: Each person of the age of eighteen years or upwards may select from fifty to seventy, five acres, in accordance with the quality of the land; and a person under eighteen years of age twenty to thirty acres, provided that no family or household shall have more than two hundred acres of first-class, or three hundred acres of second-class land.

Deferred Payment System.

The deferred payments are made in equal instalments, every six months over which the period extends. In suburban lands, this is five years, therefore there are ten instalments, payable, one each on the 1st of January and on the 1st July; the upset price being influenced by position and quality.

In Rural lands the period is ten years, with twenty equal instalments, the upset price, without the land is of exceptional quality or position, is one pound per acre.; The conditions such, that compel the holder of the land; to improve the property, which will entitle him, on the fulfilment of the terms, to a crown grant. Thus, suppose a person takes up a section of one hundred acres, the payment upon which will be ten pounds a year for ten years.

Savings Bank.

The latest returns are to the effect that at the head office, New Plymouth, there are the accounts of 1,307 depositors, having £34,780 to their credit, or on an average. £26 12s. 2d. to each depositor. Besides this it is to be remembered that the Building, and other societies absorb a large amount of the people's earnings.

Further Notes on the Butter Industry.

Mr. Mynott, one of the chief butter purchasers, has supplied information as to the quantities exported from his warehouse.

The quantity from November 1st, 1885 to May 31st, 1886, was 4,066 kegs, not including boxes. At present; there are 1,000 kegs on hand, and he expects to ship before the season is over, another 2,000 kegs.

Total value of years' shipment, £16,573 5s.

There are many other shippers, whose combined returns would increase this by some five or six-fold. In computing these amounts, no cognizance has been taken of numerous boxes of various sizes that are weekly sent to Auckland and elsewhere, for immediate consumption.

By a recent order sent away, for five separators, the working of some large factories appear to be under contemplation.

Hints for the "Farming Neophyte"

If a bush farm, after felling and burning, plant as far as possible, your ground with good mixed grass seed, adapted to the climate, leaving the cocksfoot for hillsides, and out of the way places.

Never over-stock your grass. To prevent the grass from being eaten too low, if not in your power to divide into paddocks, at least separate the feed into two halves.

Before commencing dairying for yourself, take steps towards obtaining a thorough practical knowledge of the management of a dairy in all its detail.

Keep the dairy dry, clean, and well ventilated; all this requires attention, as the time for the acceptance of an inferior article has passed away,

Thanks are due to Mr. M. D. King, for information concerning Hawera.

Printed at the "Taranaki Herald" office, Devon-street.

The Condition of New Zealand a Challenge

To Sir Julius Vogel, K.C.B.

And to the Money-Lending Fraternity and Lawyers

By Lieutenant Farmer, Q.C.

Late of Her Majesty's Horse Marines, now a New Zealand Settler.

"Above all things good policy is to be used, that the treasures and moneys in a state be not gathered into few hands; for otherwise a state may have a great stock and yet starve. And money is like muck, not good except it be spread. This is done chiefly by suppressing, or at the least keeping a straight hand upon the devouring trades of usury, engrossing, great pasturages and the like."—*Bacon*.

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The East and West Coast and Nelson Railway

"Impossible!"

"Bad for the Coo"

Protectionism and Pamphleteering

Price 1s. Post Free 13 Stamps

Christchurch, New Zealand: Whitcombe & Tombs, Limited 1885.

A State Bank.

It is generally admitted that of all the British colonies, New Zealand is naturally the one best adapted to British emigrants. Its climate is known to be very healthy, it is free from droughts, its soil is fertile, it is rich in minerals, and life and property are as safe and secure as in England. It is wonderfully free from insect plagues and from noxious animals.

There are plenty of cities and towns, ports and harbours, roads and railways, churches and chapels, schools and hospitals, and all other kinds of civilized institutions. In short, New Zealand is not only a land "flowing with milk and honey," but overflowing also with corn and meat.

But in spite of all these advantages, few New Zealand colonists at the present time would like to advise people in England to come out to New Zealand. The questions of the day now are in New Zealand as in England, "What are we to do with our boys?" and "What are we to do with our unemployed?" Yet we have virgin soil that can be tilled, forests that can be cut down, land that wants draining, land that wants irrigating, mines that want working, industries and manufactures that want starting, more roads and railways that want making, etc., etc., but all is at a standstill because we want (or think we want) "Money."

And not only are all the industries in the colony hindered by the want of money, but the high rates of interest, together with the late bad seasons and excessively low prices for produce, and consequent impoverishment of the farmers, have obliged them to diminish their production of corn crops, and so employ less labour and pay less money in wages. The consequences of this will be that we shall have less corn to export, and therefore less money with which to pay for our imports and for interest upon foreign loans. It is quite evident that, unless the prices of produce increase, either the employment of labour and rate of wages, or the price of land, or the interest upon money, must decrease.

To decrease the employment of labour and rate of wages would be to increase the present distress; to decrease the price of land would be to take away from many of the already impoverished farmers their small share, as mortgagers, in the value of their farms; but to decrease the rates of interest would be simply to diminish the *profits* of capital.

As most of our borrowed capital is English money it would only be just that, as England pays less money to New Zealand farmers for their grain, New Zealand farmers should pay English capitalists less interest upon money lent upon the land which grows that grain.

It might very naturally be supposed, from the fact of New Zealand borrowing so much money from England, that there is far more money in the United Kingdom, in proportion to population, than there is in New Zealand.

Yet, according to the figures given by Augustus Mongredien, in his John-Bright-belauded little pamphlet of 1879, entitled "Free Trade and English Commerce," it appears that the value of all the gold and silver coin in circulation in the United Kingdom, added to the value of all the precious metals it possesses as articles of

ornament or utility, from a gold tankard to a silver pencil-case, barely amounts to £143,000,000. This sum divided amongst the 33,000,000 population of the United Kingdom gives each the value of £4 6s. 8d. in gold and silver.

But as the gold and silver coin in circulation in New Zealand (without counting it in other shapes) amounts to about, £1,750,000, and as this, divided equally between the 500,000 white population of New Zealand, gives each man, woman, and child £3 10s. in coin, it appears probable that there is actually more gold and silver coin in proportion to population in New Zealand than in the United Kingdom.

These figures should convince any disinterested and unprejudiced person that New Zealand does not want more money in the shape of coin; and that if she did, the United Kingdom could not afford to lend it.

Neither the United Kingdom, New Zealand, nor any other country requires more than a very limited amount of gold and silver coin in proportion to its real wealth. Neither does a bank require anything like its nominal capital in coin. Nor does any man (except a miser) want to keep much money by him. Coins are but counters, and money is simply a measure. Men work to get money as counters, to exchange for food and clothing, necessaries and luxuries, land, &c. Men are as willing to be paid in bank notes, or cheques, as in coin, so long as they can get the nominal money's value in exchange. Gold and silver coin is chiefly wanted for small payments and change.

Thus it happens that although the nominal capital of all the New Zealand banks is about £5,450,000, and their liabilities amount to about £10,000,000, yet all the gold and silver coin in the colony only amounts to about £1,750,000. And with this small amount of gold and silver coin (belonging as much to the people as to the banks!) the banks of New Zealand carry on the whole money business of the Government and people of the colony! It is evident that the greater part of their working capital is paper money. Debentures, shares, bank credit, cheques, and promissory notes are all as much paper money as bank notes are.

The New Zealand banks are allowed to issue three pounds in notes to every sovereign they have; but are supposed to have securities, or property, of the value of the remaining two-thirds of their note issue, which is, or ought to be, easily convertible into money. Upon the amount of their note issue the banks have to pay a tax of 2 per cent. This is almost equivalent to Government lending the banks money at 2 per cent, interest, to the *full* value of their property, and *allowing them to hold their own securities!*

Now, by so doing, the New Zealand Government increases the power of the banks; and by increasing their capital, or its equivalent, increases the interest which the banks draw out of the colony. But if bank notes, representing property which is supposed to be convertible into money at a short notice, can be, and are, used by the banks instead of money, the question arises, Why should the banks have the monopoly of using paper money? Why should not the New Zealand Government use paper instead of money? And why should not the New Zealand Government assist the farmers to increase the exports and real wealth of the colony by lending them paper money, or by giving them bank credit on mortgage of land, to two-thirds of its rateable value, at 3 or 4 per cent, interest, instead of assisting the foreign banks in New Zealand to increase their profits by permitting them to issue their own notes?

The attention of the writer of this pamphlet was first attracted to the subject of paper money by some articles in the *Temuka Leader*, by the editor, Mr. J. M. Twomey, who wrote advocating the establishment of a National Bank. Since then have appeared in *Hansard* some very interesting debates on "A State Bank of Issue," and "Advances to Settlers," being the subjects of bills brought forward by the Hon. Mr. Bathgate, M.L.C., and Mr. J. Macandrew, M.H.R.

Now, as the present banks can carry on the whole public and private business of the colony with no more than £1,750,000 in coin, it is clear that a National Bank would not require more to share in the present banking business of the colony. And if, as is admitted, the State alone has the right to issue bank notes, a National Bank could get as much of this coin as is required in exchange for its own State bank notes which the other banks would then require. And, besides, what would the public indebtedness of the colony mean if she could not really borrow one million in hard cash? The remaining capital of the National Bank would be the lands, public property, and revenues of the colony. Such a bank might make "advances to settlers," *in the shape of cash credit*, to the amount of two-thirds of the rateable value of their land upon mortgage. A bank holding the borrower's title deeds to land worth a third more money than the advance, should regard those title deeds as securities, convertible at a short notice into money, and therefore the same as money or capital. A draft upon the Bank of England, or a Bank of England note is regarded as money simply because it is convertible into money, or "payable on demand in gold." But the title to land worth £300, or £3000, is just as much (and more indeed!) convertible into £200, or £2000, as a £1000 Bank of England note into a thousand pounds in gold.

Again, title deeds to land are at least as good a kind of Nominal Capital as Debentures or any kind of Stock Exchange paper. "Things which are equal to the same thing are equal to one another."

That such a system is practical may be proved by the following extract from a letter of Mr. Arthur Clayden, which appeared in the *Lyttelton Times*, of August 19th last. He writes:—

"Why do the United States prove so much more attractive to English farmers than our colonies—especially the Australasian ones? It is simply because the Yankee shrewdness has found out the secret of attraction. In Pennsylvania, for instance, land is, as it were, coined and passed into circulation. A man who purchases 200 acres of land can at once receive notes to half the amount of the value of the land, and these notes are money throughout the State. One tenth of these notes is paid back each year. Who can conceive the difference between such help as this to the small capitalist and the help to be derived from a mortgage at from 7 to 10 per cent? "

But Sir Julius Vogel and the supporters of his *Mortgage Debentures Bill* prefer the Circumlocution Offices System, by which the New Zealand Government and people pledge their real capital for the use of London Stockbrokers' paper and hieroglyphics, for which, and not for the use of real gold and silver coin, New Zealand has been and is paying an enormous tribute of produce as interest, and on account of which New Zealand has been described as "the most debt-ridden spot in the world."

A State Bank also would not only assist farmers by giving them cash credit at a low interest, it would soon produce for Government an enormous addition to the revenue in the amount of that interest.

Government now receives only about £20,000 per annum on their note circulation from the banks.

Four per cent upon £30,000,000, the present amount of mortgages in New Zealand, would represent an addition to the revenue of over £1,000,000 Per Annum.

A Shylockracy.

On the 18th of March last, Sir Julius Vogel was entertained by his constituents at a banquet in Christchurch, when he made a long speech, which he concluded by quoting these well-known lines of Goldsmith—

*"Ye friends to truth, ye statesmen who survey
The rich man's joys increase, the poor's decay,
'Tis yours to judge how wide the limits stand
Between a splendid and a happy land."*

Had Sir Julius commenced his speech by reciting these lines, any advocate for a National Bank might reasonably have anticipated that he would have promised his very best support to the establishment of such an institution.

Sir Julius Vogel's admirers say that he is a great statesman, a brilliant financier, and a most capable and clever man. But if he had really been a great statesman and a brilliant financier, and sincerely anxious to benefit New Zealand, he would immediately have recognized the immense advantages to be derived by the Government and people of the colony from the establishment of a National Bank. At any rate, Sir Julius Vogel is not such a "babe in finance" (as he called Major Atkinson some time ago) as not to be perfectly aware of the fact that the establishment of a National Bank would no more necessitate "a forced paper currency" than does the existence of the present banks. Yet he evaded the real question of a National Bank by declaring his virtuous abhorrence of "a forced paper currency."

Sir Julius Vogel professes himself to be desirous of encouraging the industries of New Zealand, but although no one can know better than himself how the present extortionate rates of interest are discouraging and ruining all industries, and especially the chief industry of agriculture, yet he hoped that no measure might be brought forward which the money-lending fraternity "would consider to be in conflict with their interests!!"

Sir Julius Vogel appeared very anxious not to incur the displeasure of the large companies, whose opposition he declared would be so "powerful" that any measure which they opposed would have no chance of passing. Sir Julius Vogel must have forgotten an old Roman proverb which his friend the Editor of the *Lyttelton Times* often makes good use of (when it suits him), "Salus populi suprema est lex." *The people's welfare is the highest law.* But great measures are for great statesmen, and Sir Julius Vogel preferred a small measure. Sir Julius Vogel ignored the substance of the State Bank scheme, and grasped at the shadow of cheap money.

Although Sir Julius Vogel could not, or would not see the infinitely greater advantages of a National Bank, he declared that it was "impossible to over-estimate the advantages which would result" from farmers being able to obtain small loans on landed security at from 5½ to 6 per cent, interest. Now, the establishment of a National Bank, by reducing the rates of interest on sound mortgage securities would assuredly have the speedy effect, through its influence upon the money market, of reducing the rates of interest upon all kinds of loans throughout the colony. A great general reduction of the rates of interest would tend wonderfully to encourage, develop and stimulate all kinds of industries in New Zealand, and this in its turn would completely do away

with "the unemployed question," by finding work for every man in the colony, and this again would keep up a good rate of wages. Besides all these advantages (and those named are but a few of the advantages which would certainly result from the establishment of a National Bank), New Zealand would have the honour of initiating a new system of banking into the Australasian Colonies, which would be for the benefit of the people instead of for the benefit of the money-lending fraternity and their agents.

But Sir Julius Vogel was afraid of a powerful opposition to any scheme, which, though it might be for the benefit of the colony, would curb and diminish those extortionate and exorbitant rates of interest, out of which so many bank shareholders, stockbrokers, money-lenders, lawyers and other parasites of industry "increase their joys" by becoming richer! Better let "the joys of the poor decay" than decrease the extortionate gains of the wealthy!

Sir Julius Vogel afterwards "shadowed forth," and has since brought before Parliament, a little measure called "The Mortgage Debentures Bill." This may have the effect of reducing the rates of interest from to possibly as much as 1 per cent, less than many farmers now pay on the same class of securities. This scheme has, however, what Sir Julius Vogel probably considers as advantages over the National Bank scheme. It includes the farce of pretending to bring more money out from England, and it would encourage and foster the employment of more companies, agents, and lawyers. "There is a tide in the affairs of man, which, taken at the flood, leads on to fortune." By ignoring the National Bank scheme, Sir Julius Vogel has missed a grand opportunity to establish his claim to be a great statesman and brilliant financier. A few days after Sir Julius Vogel's speech, the writer of this pamphlet sent the following letter to the *Lyttelton Times*, just to challenge the money lending fraternity to give some better reason against the establishment of a National Bank than that their opposition would be too powerful to allow of it. Such a reason is simply an impertinence to the people of New Zealand. It would mean that the people of New Zealand are ruled by the money-lending fraternity of the United Kingdom, and of New Zealand and by their agents. The following is a copy of my letter:—

National Bank.

"TO THE EDITOR,—Will you kindly allow me a few more lines upon the above subject. From the remarks of Sir Julius Vogel upon 'cheap money,' it appears to me that the real objection to the establishment of a National Bank is that the other banks would not like it, and that the real difficulty is that there are a great many very wealthy and influential men in New Zealand who would like to keep up the present usurious rates of interest. They object as much to have the interest of money lent upon the security of land, reduced to $3\frac{1}{2}$ and 4 per cent., as English landlords object to the great reductions in their rents, or as New Zealand farmers object to selling wheat at 2s. 6d. per bushel. But if, as Sir Julius Vogel admits, the lending of money to farmers at and 6 per cent, interest would be a great benefit to the country, "by making two ears of corn (and two blades of grass) to grow where before only one grew," how much greater would be the benefit of reducing the rates of interest upon mortgages of land to $3\frac{1}{2}$ and 4 per cent.? Those interested in the present colonial banks object to Government assisting the people who want to borrow money, or to get credit upon first-class securities by the establishment of a National Bank, but the people of New Zealand have a far greater right to object to Government assisting the banks to lend money by allowing them to issue bank notes instead of money. Now, as to the statesmanship of a Government interfering with usury, I refer both the opponents and advocates of the establishment of a National Bank to the authority of Lord Bacon. In his essay, 'Of Troubles and Seditions,' he thus wrote 'Above all things good policy is to be used, that the treasures and monies in a State be not gathered into a few hands; for otherwise a State may have a great stock and yet starve. And money is like muck, not good except it be spread. This is done chiefly by suppressing, or at the least keeping a straight hand upon the devouring trades of usury, engrossing, great pasturages, and the like.' Now the chief reasons for the desirability of establishing a National Bank are, that the present colonial banks not only are permitted to make an enormous profit by circulating their own notes instead of gold and silver, but they charge what at the present time amounts to a 'devouring' rate of interest upon the credit they give in exchange for first-class securities. The establishment of a National Bank no more necessitates 'a forced paper currency,' than does the existence of the present colonial banks. Neither would it necessitate a larger amount of gold and silver in the National Bank than is now in the colony, and which does not amount to £2,000,000. Nor would it necessitate a larger number of bank notes than the aggregate now issued by the present banks. Nor would the capital required by Government to establish a National Bank exceed the nominal capital of all the present banks, which is about £5,000,000. As the customers of the banks require but very little gold and silver in proportion to bank-notes (especially where £1 notes are current), so they require but few bank notes in proportion to their payments by cheques, and to their credits. It remains for the opponents of a National Bank to give some better reason than that their opposition will be too powerful to allow of it. They must either show that a National Bank would not benefit the colony, or else, why the colony should exist for the benefit of the banks and moneylenders. 'salus

populi suprema est lex.' But, like ancient Shylock, 'they want their moneys,' and 'they want no speaking.'—MAORI."

This letter, however, did not appear in the *Lyttelton Times*, so, about a fortnight afterwards, it was followed by a note to the editor requesting him to insert the usual "Declined," or the information that the letter had miscarried. But the editor had not the courtesy to make any reply whatever, neither did he print the letter. What was the reason? Is the Editor of the *Lyttelton Times* afraid of the powerful opposition of the money-lending fraternity? And is the money-lending fraternity really so weak that it cannot afford to have the subject ventilated, and was it desired to try and smother up the question? But when a clever and capable man like Sir Julius Vogel has nothing better to say against a National Bank than that there would be a powerful opposition against it, what is to be done? Did Sir Julius Vogel (the Prime Minister of the *Lyttelton Times*) taboo the subject? Possibly the editor may be able to explain. However, as he had neither the pluck to insert the letter, nor the manners to answer my note, a copy of the letter was forwarded to the *Press*, in which paper, after about another fortnight's delay, it appeared. (The *nomme-de-plume*, however, had been changed to "Pericles").

But although there are so many clever and capable men in Christ-church belonging to the money-lending fraternity, and although Christchurch swarms with lawyers and clerks who are the humble and obedient servants and agents of the modern Shylocks, yet none of them answered the letter. The inference is, that they have no better arguments against a National Bank than the good old rule, "that they shall take who have the power, and they shall keep who can."

"An ante," wrote Bacon, in his quaint old English, "is a wise creature for it selfe; but it is a shrewd thing in an orchard or garden." We have many wise creatures for themselves in Parliament, but it is to be feared that they are very "shrewd things" as regards the interests of the colony.

Sir Julius Vogel claims £6000 as commission upon some loan effected by him. As the establishment of a National Bank would do away with the necessity of any further foreign loans, Sir Julius Vogel might not regard a National Bank as a good thing for himself. But if by the establishment of a National Bank, not only such a nominal capital could be raised in the colony as would, for instance, make the West Coast Railway, but save such a charge as that of, £380,000 for underwriting, it is evident that London Stock Exchange men and their friends will never approve of Colonial National Banks.

After the before-mentioned speech of Sir Julius Vogel, the chairman invited questions. Amongst them was the following:—"Will Sir Julius Vogel bring in a Bill for the issue of National Bank notes and press for a division, so that the public may know the members who vote for and against it?"

Sir Julius Vogel answered that he had previously stated his views (*viz.*, that he hoped no measure would be brought forward which the money-lending fraternity would consider to be in conflict with their interests), and pretending that National Bank notes meant "a forced paper currency," he said that he should be very sorry to be the means of bringing about a state of affairs which would increase the price of every article consumed in the colony probably 30, 40, or 50 per cent.

Now, how it should happen that the withdrawal of the right of issuing bank notes from the present banks and the issuing of the same amount of Government notes, payable on demand in gold to the banks, should raise the price of every article consumed in the colony, 30, 40, or 50 per cent., is more than Sir Julius Vogel can explain. But although Sir Julius Vogel and nearly all of the representatives of the people really seem to be afraid of the banks and money-lending fraternity, there are about half-a-dozen free and independent members in Parliament who can and will speak plain English.

The free and independent electors of New Zealand are compelled by law, if they vote, to vote secretly by ballot, in order that those of them who are not free and independent may not be compelled to vote as their masters require, and in order that dishonest voters may enjoy the inestimable advantage of promising their votes one way and then, after all, *voting as their conscience bids*. The advantages of the ballot are however not very clear if the representatives of the people are not themselves free and independent. But during this last session our legislators have been told to their faces—and they have not contradicted it—that they are all under the banks and money-lending fraternity. So that New Zealand may, if this is true, be said to be governed by neither aristocracy nor democracy, but by a "Shylockracy!"

On the 1st of July, 1885, in a Want of Confidence Debate, in the House of Representatives, Mr. Turnbull said:—

"Any Government on those benches will have to yield to the banks. There is not the slightest doubt about that. If any Government to-morrow attempted to establish a State Bank of Issue, or proposed to lend money at a low rate, they would be off those benches before a week had passed. Such is the influence that the banks and money-lending companies have in this House. It is of no use for us to pretend that it is not so; it is. I am telling members what are the real facts of the case. We are entirely under these large money-lending corporations." (*Hansard, vol. li., P. 322.*)

On the 15th of July, 1885, in the Legislative Council, in a debate on his Bank of Issue Bill, the Hon. Mr.

Bathgate said:—

"We all know that the Government is so intermixed with a powerful monetary institution that it would require braver men than perhaps even our present Government to take the initiative in such a transaction. There is no use mincing the matter. We all acknowledge the power of the Bank of New Zealand in the colony. It is a power behind the throne, a power behind the State as it were. Its action is felt everywhere, and it is no wonder that successive Governments may find it rather difficult, although the Government should be satisfied that it is imperatively required, to take any step that the inmates of the Bank parlour might possibly object to."—(Hansard, vol. li., p. 588.)

These words give another sound argument for the establishment of a State Bank. "Fire is a good servant, but a bad master." It is evident that we require a State Bank to counterbalance the power of the present banks! New Zealand may as well be ruled by foreign bayonets as by foreign banks. It is simple usurpation and it is a degradation to the people of New Zealand to submit to it. And if the present Members of the Legislative Council and of the House of Representatives are afraid of the banks and of the money-lending companies, it proves that they are not fit men to represent a free nation. The electors of New Zealand have a right to demand that their representatives shall either promise to vote for a State Bank, or at least to give some valid reasons for not doing so. New Zealand has lately shared in the prestige given to the colonies by the sending of a contingent by New South Wales to the Soudan, and the colonies have been said to be true cubs of the old lion. But Lord Bacon, in his essay "Of Kingdoms and Estates," wrote:—"The blessing of Judah and Issachar will never meet; that the same people or nation should be both the lion's whelp and the ass crouching between burdens; neither will it be, that a people overlaid with taxes should ever become valiant and martial. It is true that taxes levied by the consent of the estate, do abate men's courage less; as it hath been seen notably in the excises of the Low Countries; and in some degree in the subsidies of England. For, you must note that we speak now of the heart, and not of the purse; so that, although the same tribute and tax laid by consent or imposing, be all one to the purse, yet it works diversely upon the courage. So that you may conclude that no people overcharged with tribute is fit for empire."

The banks and money-lending fraternity of New Zealand and their agents object to the establishment of a State Bank, simply because that tribute," otherwise the taxes and interest on loans paid by the people of New Zealand, would be reduced, and because the Government of New Zealand would then withdraw from the present banks of the colony that right of issuing their own notes, which is an equivalent to them of a loan to the value of above a million at 2 per cent interest, by the people of the most "debt-ridden spot in the world,"—and this too at a time when, according to Sir Julius Vogel, the value of gold is greatly "appreciated,"—and when the Estimates for Public Works have been cut down by half a million. Under these circumstances the people of New Zealand much more resemble "the ass crouching between burdens" than "the lion's whelp."

On the 14th July, in the House of Representatives, in a debate upon the Local Bodies Finance, Sir Julius Vogel said:—

"Surely it is my duty to protect the reputation of the colony; and . . . therefore . . . I have taken out a balance-sheet showing what is the real position of this colony, which, we are told, is so overburdened with debt that all revenue passes away abroad. These figures are, I believe, under the mark, especially those regarding the value of the public works. They are taken out on the basis on which the wealth of all nations is estimated for statistical purposes. I find that the assets taken on the 31st March, 1883, were—Real property, exclusive of Maori property beyond five miles from a road, £101,000,000; personal property, £64,000,000. Now, this is the estimate of our public works, and I think it is too small—£16,000,000 for railways, telegraphs, lighthouses, public buildings, harbours, and water-works on gold-fields . . . That leaves a total amount of £181,000,000 as the amount of the assets, and I would point out to honourable members also that it includes the indebtedness within the colony to persons within the colony, and the indebtedness for mortgages to people within the colony. It is a great fallacy to suppose that the chief indebtedness on mortgages exists outside the colony. By calculations which were made in 1883 it is shown that mortgages are held in nearly equal amounts inside and outside the colony; namely, £15,000,000 inside the colony and £15,000,000 outside the colony. Those within the colony appear on each side of the assessment for real property, and the other debts appear on each side of the assessment for personal property. We, therefore, need not take this local indebtedness into account, but we have to take the indebtedness outside the colony into account, and that amounted on the 31st March, 1883, to £27,783,000 as the debt of the colony after deducting accrued sinking fund. The debts of the local bodies were £4,197,000; foreign mortgages, £15,000,000; and debts due to persons outside the colony, £7,000,000—making in all £53,000,000, and leaving a surplus balance of wealth to the colony of £127,000,000. This colony is not that distressed and impoverished country which some honourable gentlemen seem to think it. That gives an average to each individual of £227, and when I turn to statistics I find that it makes us one of the richest countries in the world. Great Britain is returned in 1882, on the same basis of valuation as I have taken, as having wealth per inhabitant of £249, as against our £227; but other countries have very much less. France, for

example, is put down at £218, Germany at £140, Russia at £53, Austria at £95; Holland again comes up rich at £240. The Australian Colonies are put down at £197 per head; so that we are above the average of the Australian Colonies."—(Hansard, vol. li., p. 579.)

But "a State may have a great stock and yet starve," and "a splendid land" may not be a "happy land."

In the year 1884 (according to the *Otago Daily Times*), out of every 672 persons in the colony of New Zealand, inclusive of women and children, one became bankrupt. Their liabilities amounted to nearly half a million, and they paid an average dividend of about 1s. pd. in the pound!

Sir Julius Vogel said he considered it his duty to protect the *reputation* of the colony. Surely it is far more the duty of the Colonial Treasurer to protect the *interests* of the colony, by doing all he can to check that "usury" of which Bacon wrote, "it is the canker and ruin of many men's estates, which in time doth breed a public poverty."

Readers of this pamphlet may be interested to know that previous to Lieutenant Farmer's legal experiences, and long before his connection with Her Majesty's Regiment of Horse Marines, the real name of this "left-tenant-farmer" (or, as it pleases him to subscribe himself, "Lieutenant Farmer") appears in the Doomsday Book of England, for 1873-4, as a small Sussex landowner. Since then he sold his land (which did not realize him 3 per cent, upon its value in rent), and invested his own capital to the extent of £10,000 in growing corn and meat in England. But, although the total of rent, tithes, and taxes barely amounted to 4 per cent, upon the value of the land, such was the influence of free trade upon the value of the produce of that land, and upon "the prospects of farming," that Mr. Farmer thought well to accept his commission in Her Majesty's Horse Marines. This "commission" he may be said to have "purchased" by the loss of some thousands of pounds out of his original capital. That it is easy to lose money by farming in England unhappily needs no proof, but the fact may interest New Zealanders that during the five years ending Sept., 1879, Lieutenant Farmer expended no less than £1000 in poor rates and highway rates, above £800 in tithes (lay, rectorial, and vicarial), and about £6000 in wages; without reckoning rent, and tradesmen's bills, etc. Lieutenant Farmer believes that rent, tithes, and taxes in England amount to the same thing in principle as interest and taxes in New Zealand (only that English landlords are content with 2½ per cent, interest on the value of their land), and that it does not signify how high are the rents or rates of interest and taxes, so long as the farmers have a fair chance of making "a fair profit;" on the other hand, that any rent or rates of interest, however low, which takes away from the farmers "the means by which they live," or drives them out of a country, is an extortionate rent, rate of interest, or taxation, which is a disgrace alike to those who exact it and to those who submit to it. Lieutenant Farmer neither asked nor received the slightest abatement of rent, tithe, or taxation, and therefore during that "unprecedented cycle of unfavourable seasons" and of miserably unremunerative prices, bore the whole losses connected with the thousand odd acres which he farmed. He, however, believes that in common with the tenants of Sir Henry Brand (who, however, was not *his* landlord), he might have received an abatement of 10 per cent., or £10 upon his last payment of £100 odd lay tithe. Lieutenant Farmer, however, wrote the cheque in full (possibly abatements were not intended on tithe), thereby reserving to himself the right of challenging Sir Henry Brand, or, as his waggons and carts then duly declared him at that time to be, "The Right Honourable the Speaker," or, as the inscription thereupon now probably runs, "Lord Hampden." (Possibly under the present more "sunny" condition (?) of British agriculture, Lord Hampden may now have added a coat of arms to the decorations of his agricultural vehicles!) Lord Hampden, during the Lieutenant's "tithing" time, attributed all tenants' losses simply to "absence of sun." (For which, of course, the landlords were in no wise responsible, and the probability of which the tenants ought to have foreseen!)

In the pages of the London *Agricultural Gazette* for the years 1878 and 1879, Lieutenant Farmer, under the *nomme-de-plume* of "Selim Pasha," has often challenged the 'landlords and freetraders to discussions, in which he is so sure that he had the best of the argument that he intends to republish what he himself wrote, with an epitome of the answers and arguments of his adversaries. "Selim Pasha" might also probably be remembered by a few of the readers of that old English agricultural paper, *Bell's Weekly Messenger*, as the "Blankshire Reporter." Again, in *Punch*, Nov. 30th, 1878, is there not to be seen a picture from the hand of "Jeremiah Mangoldwurzel," another *alias* of the Lieutenant's. The title of the picture is "Farming Prospects." Singular and interesting to say, this picture if turned upside down (to allow for New Zealand being the antipodes of England, of course) gives, the artist believes, a most faithful representation of "Farming Prospects" in New Zealand and the other English colonies at the present time, unless State Banks are established, or, unless England shuts out foreigners like Russia, South America, and the United States in favour of her own colonies! Otherwise, Lieutenant Farmer maintains, that British emigrants may as well go to La Plata, or Hindostan, or Kamschatska, or, indeed—stay at home.

If Sir Julius Vogel would like the real name and address of the writer of this pamphlet, doubtless the editor of either the *Lyttelton Times* or the *Press* will oblige him and the writer by giving it.

The *Lyttelton Times* and *Press* of Christchurch both seem to be, like our representatives in Parliament,

afraid to advocate anything "which would be in conflict with the interests of the banks and money-lending companies!" The *Temuka Leader*, which claims to have originated the idea of a State Bank for New Zealand, stands out in honourable contrast, in the plucky and disinterested way in which it fights for the right. Lieutenant Farmer begs to acknowledge that to the perusal of a letter from Mr. J. M. Twomey (the editor of the *Temuka Herald*) to the *Lyttelton Times*, he (the Lieutenant) owes the origin of all his own ideas upon the subject, also the figures as to New Zealand banking capital.

A Letter to the New Zealand Grain Agency.

The following is from a letter to the New Zealand Grain Agency, I the liquidation of which has done so much damage to New Zealand I credit. It shows how the paternal Government of New Zealand, I which deals so liberally by the banks in lending them money at 2 per I cent, interest; or, in other words, in allowing them their note issue by I payment of a tax of 2 per cent., at the same time comes down with a I tax of 10 per cent, upon the victims of the money-lenders if they allow I (?) a distress warrant to be executed against them. The bailiff who serves I the court summons also is given the right, by a benevolent Government, I to charge 15s. for service within two miles of the court-house, and is. I per mile extra beyond that distance; and, finally, if the debtor either I will not or cannot pay the money in the time given, "a man in possession" is quartered upon the unfortunate debtor at a cost to the latter of I "not more than" 6s. per day and his keep. The writer has been I credibly informed that upon a certain day in the merry month of July I last, a certain bailiff left home with no less than 40 court summonses to I serve in one certain district of New Zealand! It would be interesting I to know what was the amount harvested that day by the prosperous I bailiff. "It is an ill wind that blows nobody any good,"—(that surely I must have been a wrecker's proverb). Here is the extract from the I letter above referred to:—

To the New Zealand Grain Agency.

June 20th, 1885.

"Permit me to congratulate you upon your sagacity, courage and courtesy. In I return for the honour you have done me in bringing my name before the public, I beg to inform you that I intend publishing some examples of your ways and manners. As regards my own affair with you, you have charged me for interest, commission and storage alone, at considerably above the rate of 25 per cent, per annum. Amount of advance, £89 5s.; interest, commission, and storage for not more than 11 months, £21 16s. 10d. 2nd. The 181 sacks received by you contained 714 bushels of barley; your receipts account only for 695 52/50 bushels. 3rd. You have charged for insurance on the value of £110, whereas the barley was not worth £90 either here or at Sydney. Do you insure against fire at the same rates? If so, pray in what office? 4th. Government exacted a tax from me upon your charges, called "Poundage" amounting to 51s.; besides which I had to pay your friend the bailiff 15s., and something also I to his mate I have to thank you for an experience which I shall do my best to turn to public advantage. I am, yours very faithfully,
ETCETERA.

It should be explained that the advance of £89 5s. was made upon 181 sacks of barley at 2s. 6d. per bushel. The condition of the barley deteriorated, and as there was no sale for it in Christchurch it was, by the Company's advice, shipped to Sydney, where it was sold at 2s. 6d. per bushel. Railway charges, freight and Sydney charges make up the balance of the £48 19s., amount for which summons was issued, and upon which Government and its servants received a tribute of over £5 or a tax of 10 per cent, upon neither the profits nor property of a farmer, but upon his losses.

The judges, magistrates, police, and lawyers are supposed to exist for the security of life and property. A man found guilty of playing with dice upon a racecourse (much more with loaded dice) is liable to fine and imprisonment). The same judge or magistrate, however, who punishes such peccadilloes, will enforce the payment of any rate of interest (*especially in the form of a promissory note*) from the tillers of the soil, or from their employers to the money-lenders and their agents. The former, however, is far more in the nature of a free contract than the latter. No man is compelled to go upon a racecourse or to bet; but farmers are compelled to have land, and to do so they must "go to the notary" with Shylock, and "seal there their bond" to the following effect:—"Know all men, by these presents, that whatever the price of corn and meat, whatever the seasons, be there earthquakes, be there wars, be there drought, be there floods, whatever may happen: if we, our heirs,

executors, and assigns do not pay to you, your heirs, executors, and assigns on such and such a day, in such and such a place, such sum or sums as are expressed in the conditions, let the forfeit be—a pound of flesh." The notary thus makes it all safe for Shylock. He as good as says, "You give my friend the money-lender your securities worth £3000, and he will lend you £2000. Then you shall pay him from 6 to 20 per cent, as you shall agree, and as the law permits; above this you will have to pay me, the solicitor, from 1 to 3 per cent, for legal expenses, commission, etc. If this swallows up 'the means by which you live,' you will understand that is 'the means by which we live.'" This is a very fair specimen of "Heads, I win; tails, you lose."

But the farmers of New Zealand are not children, "that they should not be responsible for engagements into which they have voluntarily entered!" "*Their* lands and goods are by the laws *and lawyers* confiscate unto the *money-lenders*," unless a State Bank is established, which, by reducing the rates of interest upon money, prevents the depreciation on the value of land and the undue influence of the money-lenders and their friends the lawyers in Parliament.

East and West Coast and Nelson Railway.

An Act was passed last year to enable a contract to be made for the above railway. The following were the chief conditions of the contract to be offered:—

Crown land to the value of 50 per cent, of the cost of the railway was to be given to the contractors, such cost for the purposes of selection being estimated at £2,500,000. The value of the land to be ascertained by arbitration, and to be reckoned upon its estimated market value immediately prior to the date of the contract, and without reference to any prospective value; but no land to be taken to be worth less than 10s. per acre. The line to be divided into thirty-five sections, and upon completion of each section a proportionate part of the land grant to be thereupon selected and granted to the selectors. The railway to be made within ten years, and afterwards to be maintained and worked. Government to have the power of purchasing at any time after expiration of ten years from its completion at cost price, less allowance for depreciation.

New Zealand Governments really are very liberal to banks and to big companies. Considering that the value of the Crown lands to be chosen would probably be about doubled by the making of the railway, to give 50 per cent, of the cost of the railway in land estimated at its value, *without reference to any prospective value*, might be about equal to paying the contractors the full cost of the railway. To divide the railway into thirty-five sections, and upon completion of each section to hand over a proportionate part of the land grant to the contractors, would be to provide them with money to pay for it as they wanted it. And, after all these concessions, the Government was to have the right of purchasing the railway at any time after ten years from its completion. The people of New Zealand were thus to pay half the cost of the railway, but all the profits of the railway and the railway itself were to belong to the contractor. But even these good things were not sufficient for the London contractors and financiers. Like Oliver Twist and the daughters of the horse-leech, they wanted more.

Messrs. Meiggs and Sons agreed to construct the railway providing further concessions were made. They asked, in addition to the land grants, a guaranteed payment of, £97,000, in excess of working expenses, per annum for twenty years, payable in London half-yearly, commencing after the railways should be finished, and stated their intention to finish them in from three to five years. The amount of, £97,000 was arrived at because of its being 2½ per cent, on the cost, which was thus estimated:—

—(See *Hansard*, vol. li. p. 107.)

As however half the cost of the railway would have been paid by the people of New Zealand, in land, to the value of that amount, (and of a much greater prospective value!) Messrs. Meiggs were really asking a guarantee of more than 5 per cent, upon their own share! But the great evil of the transaction would have been that instead of the railway adding to the revenue of the Government, its annual profits would have been so much tribute paid by the people of New Zealand to the London money-lenders and stock-jobbers. Mr. Fell, in his Delegates Report, (see *Lyttelton Limes*, November 2nd, 1885) says, From estimates based upon the report of a Royal Commission in 1883, and the opinion of the General Manager of the New Zealand Railways, the annual receipts of the line *from the time of its completion*, and which will certainly be largely increased with the growth of settlement, will amount to, £180,000. After deducting 60 per cent, which allowance is based upon the returns of the working expenses of New Zealand lines, this will give a net revenue of £72,000 per annum, or about 2¾ per cent, on the estimated cost of the line, exclusive of any receipts from the grants of land which will be made as the railway progresses."

Now if land can be "coined into money," as is done in Philadelphia; or if land worth money can be regarded as capital, in the same way that the Nominal Capital belonging to, or entrusted to the banks and invested in debentures and shares is considered as money, why should not the land which was offered to Meiggs and Sons

be considered as capital also? All the money that is required is the use of a little of the gold which a State Bank should get from the other banks in exchange for State Bank notes. The remaining capital required to pay for the East and West Coast and Nelson Railway is the land convertible as the railway is made, in its 35 sections, into 35 payments in gold. Besides as the money is spent, the railway is made. And the railway is capital which would soon return an increasing revenue. A National Bank might with much better reason give a cash credit of a million pounds Stirling to the East and West Coast and Nelson Railway, or to the North Island Main Line, than to give the banks the right of issuing a million of pounds, nominal value of notes. In the former cases the Government would hold property convertible into gold with which to repay itself, in the latter, it permits the banks to impose upon the people a circulation for which neither the Government or people hold any security whatever!

From a letter of Mr. J. M. Twomey's, previously referred to, the writer learns that Mr. White, of Balcairn, has taken the initiative in forming a National Bank League. The writer would suggest that the members of the East and West Coast and Nelson Railway League should all become members of the National Bank League!

"Impossible."

"Impossible," cried Mirabeau, to his secretary, "Never say to me that fool of word." New Zealanders ought to recognize how "impossibilities" become accomplished facts and not to quail before difficulties. Thirty years ago it was supposed to be impossible to get to New Zealand from England in less than about six months. Then it was thought impossible to send wheat to England. As to sending fresh meat, no man was so mad as to suppose it possible. Yet now iron ships race from New Zealand to England in about six weeks, and an English fairful of sheep is carried in one cargo, frozen by means of—heat!

"And how would you like a National Bank?" said the writer to a Christchurch lawyer. "Not at all," responded he frankly, "and you can't get it. I have lent £10,000 in your district quite lately—you can't get the money." "But," responded the writer, "it isn't money you get, and a National Bank with the same amount of coin as the other banks can hold its own with them." "We know all about that," answered the lawyer, with a smile, "but you can't do it." "We'll see about that," replied the writer, "we will have a National Bank, and we will have the land free from the lawyers."

The fact is, that the money-lenders and lawyers think they have bound the people of New Zealand "soul and body" like the Philistines bound Samson; and, like the Egyptians forced the Israelites to make bricks without straw, so the lawyers and money-lenders would like to make New Zealanders pay extortionate rates of interest out of unremunerative prices. The result of which is, as the Hon. Mr. Bathgate has admirably pointed out in the Legislative Council, in a debate on *Advances to Settlers*. He said, "In my opinion they (*i.e.*, the settlers) are being slowly ruined at this moment, and some remedy is necessary to meet the case, unless we are to have universal insolvency among that class, and see the land of the country passing into the hands of capitalists, as the Egyptian land did into Joseph's hands, to be managed for absentees out of the country."—(*Hansard*, vol. li., p. 117.) Now, if there is an impossibility, it should be that the people of a free country should allow themselves to lapse into such a state of virtual slavery. Mr. Bathgate also drew attention in the Council (see *Hansard*, vol. li., p. 313) to the appalling fact that there are in this colony 25,000 settlers who are mortgagers up to the extent of £500. The total mortgages amount to about £30,000,000, and out of this no less than £17,000,000 is held in small mortgages of sums under £2000. Mr. Dargaville says (see *Hansard*, vol. li., p. 388) that there are no fewer than 32,000 mortgages for sums between £100 and £1000.

Really, however, what is "appalling" about these figures is not the amount of indebtedness, but the ruinous rate of interest and costs of such small loans. Of these Mr. Bathgate, in introducing his bill, "*Advances to Settlers*," said, "These men cannot raise money at less than from 11 to 13 or 14 per cent. I admit that, in the majority of cases, the rate of interest for such loans is the nominal one of 8 per cent., but to arrive at a correct knowledge of what the smaller settler has to pay you must add his charges. You must add 1 per cent, as procuration fee. These men have not the knowledge or sense to apply to a loan company or private money-lender themselves. They invariably go to an agent, and in addition to the procuration fee to the lender, have to pay his charge. They have to pay their own agent 1 per cent. I have known cases where such agents have exacted 2½ per cent.; but say the rule is 1 per cent. Then there are the law charges, which, of course, press the more heavily the smaller the sum borrowed. If a man borrows £500 he cannot expect that the law costs will be less than £15. The mortgage is usually restricted to three years, and there is not a case in the colony where a mortgage is allowed to remain after the expiry of that term, however good the security may be. It does not suit the agent of the lender to do so. He wants the money turned over so as to obtain a fresh procuration fee. So, for three years, the borrower of £500 has to pay at the rate of 1 per cent, in law charges, thus bringing up the total to 11 per cent. If the sum is under £500 there are the same charges, and the rate is increased, making it as high

as 13 or 14 percent."—(*Hansard*, vol. li., p. 117. To this testimony I add that of Dr. Newman, who, in a debate on the Mortgage Debentures Bill, in the House of Representatives, said, "The great curse to the small mortgagers has been the excessive amount they have had to pay in the way of legal charges and attendant expenses when they have to raise small sums of money. If they have to borrow a sum like £150, or, £200, or £300, the amount they have to pay in the way of legal and other charges comes to at least 2 per cent, on the loan."—(*Hansard*, vol. li., p. 389)

"It never troubles the wolf how many the sheep be," but these 32,000 mortgagers are not sheep; they are free and independent electors, who, if they once see that a State Bank can relieve them from taxation—reduce the rates of interest and do away with the law costs on mortgages of land—will demand that their representatives support the establishment of a State Bank, or, at the next election will vote for none but trustworthy State Bank advocates. And the working men of New-Zealand will easily comprehend that if the farmers have less interest to pay upon money, they will have more money to pay in wages. And business men will understand that if farmers and working men are prosperous, trade will soon flourish again. After all a State Bank is not impossible!

Bad for the Coo!

Mr. Weller, Sen. (loq.): "Susan," says I, "you've been a werry good wife to me altogether. . . . Keep a good heart, my dear; and you'll live to sec me punch that ere Stiggins's head yet." "She smiled at this, Samivel," said the old gentleman, stifling a sigh with his pipe, "but she died arter all!"

"Yell," said Sam, venturing to offer a little homely consolation, after the lapse of three or four minutes, consumed by the old gentleman in slowly shaking his head from side to side, and solemnly smoking, "veil, gov'nor, we must all come to it, one day or another."

"So we must, Sammy," said Mr. Weller the elder.

"There's a Providence in it all," said Sam.

"O' course there is," replied his father, with a nod of grave approval. "What 'ud become of the undertakers vithout it, Sammy?"—Pickwick.

Ay, there's the rub! If the reaper with his pale horses and mowing machinery were to cease work, what would become of the undertakers and their black animals? And if Government, by means of a State Bank, were to give a cash credit to small landowners at 3 or 4 per cent, interest instead of giving the banks the right to issue notes instead of money at 2 per cent, tax, what would the money lenders do then, poor things? How would they live? And if the Government, by making advances on land registered under the Land Transfer Act, by endorsement of title, were to do away with the legal expenses of borrowing money, what would the lawyers do then, poor things? How would they live? And if a State Bank were to bring prosperity to New Zealand by checkmating usury, what would the bailiffs do then, poor things?

Stevenson, the railway inventor, was asked what would happen to a train if a cow got on the line? He answered gravely, "It would be vara bad for the coo!"

From cows to bulls and from bulls to bears are easy transitions. And what will the bulls and bears of the London Stock Exchange say to a National Bank of New Zealand? It is impossible to please everybody—undertakers and all! The bulls and bears won't like a State Bank, nor will it please our money lenders, nor our lawyers, nor our bailiffs—but—so much the better.

Review.

The New Zealand Farmer, Bee and Poultry Journal.—I have recently been delighted by the specimen copy of the above monthly periodical, and would like to do myself the pleasure of recommending it to every man, woman, and child in New Zealand. The paper is a credit to the colony in every way, and any person who wishes to give home friends an idea of the advanced position of New Zealand journalism could not do better than send them a few copies of the above. The subjects of Farming, Gardening, Beekeeping, the Timber Trade, and the state of the Markets are all admirably discussed. To these are added some first-class "jocularities," a few good stories for grown people and for children, receipts for the ladies how "pies to make," and "bread to bake," and how "to knit the sock," and "mend the frock," etc. There is no better paper of the kind in England to my knowledge. Most astonishing of all, the subscription is only 10s. per annum. The price of a single copy is is. There are some capital selected and original poems in it, of which the following is a slight variation. The lines written in italics are altered just to please the mortgagées:—

The Farmer's Wife.

The farmer came in from the field one day,
His languid step, and his weary way,
His bended brow and sinewy hand
All showing his work for the good of the land;
But he sows,
And he hoes,
And he mows,
As everybody knows.
All for the good of the Mortgagee.

By the kitchen lire stood his patient wife—
Eight of his home and joy of his life—
With a face all aglow, and busy hand,
Preparing the meal for her husband's band;
For she must boil,
And she must broil,
And she must toil,
For the Mortgagee rack-rents the soil.

Sun shines bright when the farmer goes out;
Birds sing sweet songs, lambs frisk about—
The brook babbles softly in the glen—
While he works bravely for the good of the men;
But he sows,
And he mows,
And he hoes,
All for the good of the Mortgagee.

How briskly the wife steps about within,
The dishes to wash and the milk to skim;
The fire goes out, and the flies buzz about—
For dear ones at home her heart is kept stout.
There are pies to make,
There is bread to bake,
And steps to take,
All for the sake of the home.

When the day is o'er, and the evening has come,
The creatures are fed and the milking is done,
He takes his rest 'neath the old shade tree,
But 'tis spoilt by the thoughts of the Mortgagee;
Though he sows,
And he hoes,
And he mows;

Yet he "owes."

But the faithful wife from sun to sun,
Takes the burden up that's never done;
There is no rest, there is no pay,
For the mortgage drains the cash away.
For to mend the frock,
And to knit the sock,
And the cradle to rock,
All for the good of the home.

When autumn is here with chilling blast,
The farmer gathers his crops at last;
*But the merchants, the lawyers, and mortgagees,
Take all his profits in commission, percentage, and fees.*
While it snows,
And it blows,
*The interest grows,
Of all his foes—there's none like the mortgagee.*

But the willing wife, till life's closing day,
Is the children's and the husband's stay,
From day to day she hath clone her best,
But death alone can give her rest,
For after the test,
Comes the rest
With the blest—
*Where the merchant, the lawyer, and mortgagee,
Can neither hope nor wish to be.*

(The original is in the *New Zealand Farmer*, January, 1885.)

Protectionism and Pamphleteering.

Lieutenant Farmer, Q.C., late "Jeremiah Mangoldwurzel," late "Selim Pasha," intends shortly to publish another pamphlet, which he intends to dedicate (without permission) to Lord Hampden, late Sir Henry Brand, Speaker of the House of Commons, and to Lord Monk Bretton, late the Right Honourable J. G. Dodson, late Minister of Agriculture for the United Kingdom. These two gentlemen are both Sussex landlords and freetraders, and as such, Lieutenant Farmer, as a late Sussex tenant-farmer and protectionist, intends addressing them.

The pamphlet is to contain some or all of the articles contributed in 1878 and 1879 by "Selim Pasha" to the *London Agricultural Gazette*. It is also intended to incorporate with these a certain pamphlet, entitled "Farming; or Tenants v. Landlords, Protection v. Free Trade, and Common Sense v. Nonsense." By Jeremiah Mangoldwurzel. Published in 1879 by William Ridgway, 169, Piccadilly, London. To these it is intended to add fresh notes, and more articles advocating protection.

Lieutenant Farmer maintains that all imports of corn and meat into the United Kingdom ought to be taxed for the protection of the agriculture of the United Kingdom, and because the corn and meat grown in the United Kingdom are heavily taxed. Also, that all imports of corn and meat into the United Kingdom from foreign countries not colonies of the United Kingdom, ought to be taxed at a higher rate than such imports from the

British colonies. Also that the imports of corn from India, although India is a part of the British Empire, ought to be taxed at a higher rate than imports of corn from the colonies, because the ploughmen of the United Kingdom and her colonies cannot compete with labour at 3d. or 4d. per day. Also for the reason that the export of wheat from India must increase the price of food where wages are very low, and where famines are frequent. Also that it is to the interest of the farmers of the United Kingdom and her colonies that all kinds of industries and manufactures should be fostered and encouraged, *where necessary*, by the means of protective duties. Lieutenant Farmer maintains that such a policy would bind Ireland to Great Britain, and the Colonies to the United Kingdom, and would create a splendid revenue for the defence of the British Empire.

The folly and madness of free trade is well exemplified by the following figures given by Mr. Hursthouse in the New Zealand Parliament:—"The importation into England from Russia has increased of late years to £7,000,000, and the export to Russia is £393,000."—(See *Hansard*, vol. li., p. 427.)

For a favourable review of his previous pamphlet, "Farming," Lieutenant Farmer, alias Mr. Mangoldwurzel, refers anyone interested to the *Agricultural Gazette*, June 16th, 1879, wherein it is said that he "excels as a pamphleteer."

The "power of the Press" is not limited to newspaper editors, but is at the command of any man who can write. Neither is the representation of the people limited to what their members of Parliament like to represent. Neither is the advocacy of what is right and true altogether become "a vested interest" of the lawyers and barristers. Advocates of a Sate Bank the West Coast Railway, and Protection, are invited to assist Lieutenant Farmer by recommending his pamphlets to the attention of booksellers and newsvendors, to whom" a fair profit will be given These pamphlets are intended to be published in other colonies also, and in England.

The money-lending fraternity and lawyers are requested neither to paste up the enclosed advertisement in any public place, nor to circulate it!

decorative feature - fan

Whitcombe & Tombs, Limited, Stationers and Printers, Christchurch

A Lecture on the Economic Defence of our Commerce and the Development of our Industrial Resources.

Delivered by Admiral Scott,

Under the Auspices of the New Zealand Manufacturers' Association

May 28, 1886.

Dunedin: Printed at the Evening Star General and Commercial Printing Office, Bond Street, Dunedin.

A Lecture on the Economic Defence of our Commerce and the Development of our Industrial Resources,

Delivered by Rear Admiral Scott,

Under the Auspices of The New Zealand Manufacturers' Association.

May 28th, 1880.

Admiral Scott gave a lecture under the auspices of the New Zealand Manufacturers' Association at the Y.M.C.A. Hall last evening on "The Economic Defence of our Commerce and the Development of our Industrial Resources."

His Worship the MAYOR (Mr J. Barnes) occupied the chair.

In his preliminary remarks the lecturer explained that, besides touching upon the defence of New Zealand's commerce and the development of her industrial resources, he would throw out suggestions for the removal of the present severe depression, and advert to the position of New Zealand in regard to Foreign nationalities and the Mother Country, with its probable influence upon our future prosperity.

The lecturer then proceeded as follows:—

The alarming nature of the outlook, when all Europe and much of Asia are one vast camp, is I believe apparent to most of us; nor can it be denied that peaceful occupations are likely to be sadly interrupted by the breaking out of perhaps the most sanguinary war the world had ever witnessed.

Every nation in Europe seems, as if impelled by some unseen force, to polish up its armor and to furbish the newest weapons of destruction, which are through the advance of science and its application becoming more deadly day by day.

According to an able war office official every trade was becoming stagnant but that concerned in the manufacture of costly weapons of war. Wherever he visited in the factories throughout Britain the manufacture

of the latest war-like arms was alone prosperous, while all else was in a very depressed state, and the masses were becoming pauperised.

On this side of the globe we had been stirred up and had raised some strong remonstrances against foreign encroachments, and the colonies were now resisting the annexation of the New Hebrides by France.

Germany, once peaceful, having tasted the sweets of conquest and the value of power, seemed to be meditating making other additions to her territory, and thus fully employing her warlike spirits. Both these ends would be thoroughly achieved by annexing the German-speaking provinces of Austria, and by the further extension of her Empire in Africa and the Pacific.

Russia also had been looking with a loving eye upon the Slav, and was prepared to take coy Transylvania within her arms; a fact well known to German statesmen, and one which would, of course, render it necessary for the German Emperor to take other portions of Austria under his own protection. The former gigantic Power was now overshadowing the various principalities around the Black Sea in its advance towards Constantinople and the Mediterranean; and was likewise threatening to absorb Persia in its movement southwards towards the ocean.

Russia had also abolished the Turcoman, and been gradually swallowing portions of the Chinese Empire; and she was said to be now employing the £7,000,000 which was withdrawn from the Bank of England by German financiers last year in further war preparations.

France had likewise been busy in various other parts of the world; and having added Annam, Tonquin, etc., to her territories, would be perhaps well satisfied to further increase them by the addition of Belgium and Madagascar. These and other compensations in the Pacific, and the possession of the port and territory of Acre in the Mediterranean would probably go far to content France for the loss of Alsace and Lorraine.

On such an outbreak as he had indicated, Holland, with its valuable Pacific possessions, would be a tempting prize to Germany, and might be snapped up, with the remainder of Denmark. England at such a time would have quite enough to do to secure her own extensive trade and commerce, and hence the supreme importance of our being able to supply our own trade requirements was self-evident.

As regarded Germany, what had already been mentioned only formed a part of her recent movements, for it appeared that Prince Bismarck had been negotiating for the transfer of the Sandwich Group. These islands would become of great strategical and commercial importance hereafter, as they lie directly in the fair way from Panama, and commanded the trade routes which would be established to China, Japan, and Russian territory north of the Amoor directly the Lesseps canal is opened.

England had certainly made a mistake in giving up the Sandwich Islands, and Tahiti, with the other Society Islands. These events, however, took place in times when even England's own colonies were regarded as of little value, her free trade throughout the earth being looked upon as *secure*; for England was *then* the great manufacturing centre, and also the mart of the whole world for nearly every commodity.

The doctrine that trade followed the flag was then unrecognised; and it was not till long after Britain had lost the once valuable pearl fishery and other trade of the Society Islands (formerly the rendezvous for whalers, and the *entrepot* for much of the China commerce) that this doctrine became recognised. Should Germany now acquire the Sandwich Islands, Java, Sumatra, and the other Dutch possessions, France possessing New Caledonia, Rapa, the Marquesas, etc., Australasia would be hemmed in around her northern side and separated from China and Japan as well as from Panama.

It was true that the possession of islands entailed expense, but this to England with her maritime power would have been trifling, and their development would be attended with considerable advantages. If New Zealand and her sister colonies only availed themselves of their many present opportunities and secured a portion of the trade that was now offering in the Malay Archipelago and Spanish possessions, there would be little fear for her future.

Peace was the period for preparation and strengthening the sinews of our national life, so that we might become a united and powerful, and consequently a successful and prosperous people. Trade followed the flag, and therefore every island group seized by any foreign Power reduced either our present or prospective markets.

Germany and France were both strictly Protective, and did their best to retain trade in their own hands. Russia followed a similar policy; so that, in self-preservation, we should adopt a discriminating tariff in favor of the Mother Country, and a well-regulated interchange between ourselves and our natural allies, the United States, together with a close union and reciprocity between the colonies. This union is as necessary to the due development of New Zealand as it is essential to her efficient protection. The union would likewise materially strengthen Great Britain, and would enable her to speak far more strongly against annexations in these seas.

Canada had been during a period of peace attracting a large population to her shores by a wise protective tariff, which had given employment to thousands of her children. Victoria had also become richer and more powerful, and both countries were being fast prepared against every eventuality. New Zealand and other

colonies, however, had shown little sign of progress.

Victoria was well worthy of imitation, not only in the energy with which she was developing her resources and making known to England her wishes, but also in her earnestness in seeking new markets and pushing her manufactures in every direction. He was credibly informed that twenty-five years ago the condition of Victoria was incomparably worse than that of New Zealand to-day; but a duty sufficient to enable industries to be inaugurated was put upon imports, and from a state of pauperism and incipient bankruptcy she had been raised to being the only really prosperous colony in Australasia. Thousands of our best mechanics had flocked to Victoria, with many youths (educated at our cost) to swell the ranks of her population and increase her producing and manufacturing powers.

Victoria was believed to have received the greater part of the 3,000 or more of the adult male population who had left our shores. Reducing this number to 2,000, and reckoning their value at £200 a head, it would be seen that we had sustained a loss equal to £400,000. If we take the value of the 2,000 at only £100 each—the sum each immigrant was estimated to be worth to the United States—where the population was rapidly increasing—we should still find that £200,000 had been lost to us. Such an amount would only represent a part of the diminution of wealth which the labour of two thousand persons—principally skilled men—would have produced; for estimating their wages, which would have been earned and spent here, at an average of £100 per annum for each man, the yearly loss in money circulation alone would amount to £200,000!

But even this large sum would not represent the total yearly loss to New Zealand, for the money would by its circulation in our midst have helped to provide employment for men in other branches of trade, whose wages also would then have passed to the shopkeepers, and they in their turn would have purchased from the merchants. More goods and a greater number of commercial and other travellers would have been carried by our railroads, swelling the receipts; and thus under a wise protective policy a continuous stream of employment and profit would have resulted throughout New Zealand. Not only so, but every increase of wealth would have brought an increased number of settlers, and consequently have added to the value of our pastoral and agricultural lands, and further benefited directly or indirectly every citizen in New Zealand.

It may be said the recent census shows an increase in 1880 over the population in 1881 of about 3,000 souls, but the excess of births over deaths is at least 75 per month; this rate would give 900 per year, which is equal to 4,500 since the last census; that is, 1,500 in Dunedin alone beyond the actual number. The arrivals here have amounted to many hundreds more, which will serve to show us the great loss in population we must have been sustaining through emigration, and will in itself account for much of our depression.

When to this loss of population is added the heavy losses of our runholders and farmers by the fall of wool and grain, and the consequent reduction of their purchasing power, it can be readily understood how so many of our best workmen have been forced to leave from the lack of funds and suitable work to employ them, and why so many of our tradesmen have been unable to meet their liabilities. It will be seen likewise why several skilled manufacturers and workers of metals who have had to face the almost continuous fall in the value of the materials they import (none being as yet raised in this Colony) have made little or no profit upon their capital.

The result of the present state of our trade is unfortunately too apparent in the many line shops deserted, and in the numerous stores and houses advertised to let, not only in Dunedin but throughout New Zealand.

The causes of the present state of our trade were not far to seek. The first great cause was to be found in our national forgetfulness of the Giver of All—He who could not be mocked, and who had said of the Israelites of old, "The wisdom of their wise men shall perish, and the understanding of their prudent men shall be hid." Where were our wise men to be found at the present grave crisis? Where were our prudent men to guide us through the present gloomy depression? Who was to be our leader? Victoria had triumphantly emerged from her former difficulties, and Canada was fast becoming a powerful nation. New Zealand, with a better climate, a highly productive soil, numerous flocks and herds, and an abundant fish supply, seemed to be daily becoming poorer.

A secondary cause was that the interests of other countries had been looked after at the expense of our own, so that at the present day New Zealand was relatively poorer than she was when she was founded.

Those who were still energetically striving to extend our industries were forced to obtain money from foreign creditors. The latter sent their manufactures to our markets, and therefore made a double profit at our expense. A responsibility, then, which rested on the Government was the encouragement of our local industries by a strong national and colonial policy—a policy that would place the unemployed on the "Tucker" goldfields, and bring experts to discover our own "Kimberleys" and to teach us how to raise new crops to be utilised in new industries.

The Public Works policy had relieved the depression which originally existed in the Colony, but the choicest of the land opened up was bought by companies, and many of our best settlers had been tempted to purchase farms at far too high prices. They had borrowed from these companies, and the result was as pointed out by Mr Macandrew. Whilst the whole of our earnings were being swept away from us, the companies were

dividing from 15 to 20 per cent, profits, many of the shareholders believing that we could well afford to pay so much.

The Colony was sustaining a further loss through absentees, who, after making their money here, were spending it in the Old Country.

A similar cause conduced to the serious dissatisfaction and consequent troubles in Ireland; her landlords preferring the gaieties of London to living amongst their own tenantry.

Whilst we are so foolishly lagging behind, and allowing aliens to manufacture at our expense, Germany is vigorously pushing to the forefront in the industrial race; and—not content with sending numbers of her highly trained young men to secure, as they have done, a large share of the South American and Pacific trades—is now dispatching a vessel laden with samples of her various industries, so as to open up markets in the more distant parts of the world. The German Chancellor is well aware that trade produces the sinews of war, and is encouraging to the utmost the manufacture of woollen and all other goods within the country; respecting which the British Charge d'Affaires at Dresden recently reported that "the political constellations of the empire, the most powerful industrial and commercial forces, . . . are all on the side of the existing protective system"; and that "the belief is widely diffused that the tariff reform of 1879 saved Germany from a great ruin; and that the empire is now on the road to industrial greatness, perhaps to the succession of that hegemony which Great Britain, it is thought, now with difficulty holds in her hands."

We are told by some of our advisers that, under the present condition of things, the best course is "to economise and to wait"—perhaps, like the famous Mr Micawber, for something to turn up. But will such a course furnish employment! Will it return a profit to our runholders, farmers, and other producers, and tend to bring back prosperity to all class as? Certainly not. What the country really requires is union amongst our legislators, so that their abilities may be wholly directed to the well-being of the Colony. This will not be secured by cutting down loans, which if wisely used should return, perhaps, a small direct, but an increasing indirect profit.

Economy as regards unnecessary expenditure is doubtless much needed; but what we urgently want to lessen without waiting, is the exodus of our best workmen, and the youths we have trained at such a cost; and it is to our Government we must look to provide the work needed to foster this most valuable of assets—viz., population. For if it be right to expend nearly L400,000 annually on the education of the children growing up in our midst, it is doubly the duty of the State to provide for the profitable application of the capabilities which its enforced education has developed.

Victoria is in the same position as this Colony in regard to the low price of cattle and produce; but, on the other hand, she has developed her mineral and other industrial resources, and thereby accumulated sufficient wealth to fully employ all her people—thus affording us a valuable example. Unless a change speedily takes place in our own policy, the numerous children who annually finish their education and leave our schools must migrate to seek the work which cannot be given here, as but few of them are fitted—even were there agricultural employment—to go upon the land.

England, from which we have inherited or copied our notions in regard to Free Trade, would be simply ruined if mainly dependent upon pasturage and agriculture; but instead of being so, manufactures and mining products are her main stay; and it is with the sale of these, combined with the interest accruing from the stocks (purchased with the large capital derived from her former manufacturing and mining profits) that she continues to pay for her imports, and is still enabled to maintain her vast shipping and commerce. New Zealand has not yet any such resources, and is consequently daily feeling more and more the drain, not only from the heavy interest upon borrowed money, but also from having to pay for imports with her bullion. In other words, instead of employing her own children and increasing wealth within her own border, she is sending away the means of production to maintain strangers, consequently pauperising herself!

New Zealand, instead of imitating the example of energetic Victoria, has even allowed large stocks of articles, mostly unsaleable elsewhere, to be landed, to the ruin of her producers. The fruits of this system—which is that of taxing ourselves to keep an open market for the benefit of foreign manufacturerers, and of borrowing money which mainly benefits them—are to be seen in the stagnation of our own Colonial business and in the bankruptcies in all classes; to say nothing of the eighty-six men who are stated to have recently gone from our shores, leaving their wives dependent upon charity and their children to be educated at our expense. Besides the many goods imported which could be manufactured here, and afford profitable employment; the amount of Colonial work is further lessened and its industries are crippled by the exemptions from duty of numerous articles only slightly differing from those on which duty has to be paid; and, as if this peculiarity were not sufficiently disadvantageous to the colonial producer, articles presumably supposed to be intended for one purpose are admitted "free," whilst if passed for other purposes are subject to duty. Need it be added that such a tariff occasions a direct loss of revenue to the Colony, as well as serious injury to the manufacturer, and has certainly a tendency to lead to fraudulent representation—especially in times like the

present. We have been often told that, as the importers of British or foreign goods pay duty upon *some* of their manufactured imports, the local producer ought to be able to advantageously compete. But these writers altogether ignore the fact that the New Zealand manufacturer has in most cases to import the raw material he requires, paying for its freight, just as is done in the case of the manufactured article; and, as a set-off to the import duty (if charged), has to be put the comparatively large stock which the manufacturer is obliged to keep—for his customers can't or won't wait for the articles they require until these can be made from materials imported from Europe or America.

The British or foreign manufacturer need not keep stock, as he has the open market close at hand for whatever he requires; and he has the further great advantage of being enabled to make many articles from the same pattern.

The difficulty of manufacturing profitably under the conditions of the present bad New Zealand tariff may be shown by the fact that a partner in one of the largest manufacturing firms in this Colony placed £20,000 in the business, and yet had to be dependent upon his father for his household expenses. This gentleman is an intelligent and skilled expert in his profession. If we look around Dunedin we find the principal industrial businesses taken over by the banks, who, fortunately for all classes, continue to work them, and also to help other businesses. Were it not so, the cry of the unemployed would give place to far more extensive distress.

New South Wales, prosperous so long as a large revenue was obtained from land sales, is now proportionally depressed; and the Premier of this oft-praised free-trade colony has been calling attention to the injurious drain experienced through so largely purchasing from other Colonies, and sending away such great sums to pay for foreign manufactures. This Premier has, in consequence of these representations, just succeeded in carrying a Protective Tariff by a large majority. New South Wales, like the rest of the world, was beginning to understand that the free interchange of commodities should be restricted to those articles which each country was unable to make for itself. To lay open a country to the free introduction of goods which could be made by that country's own people was as unwise as it was to invite invasion by the absence of due precautions; and the country which does so cannot progress satisfactorily.

All wealth is the product of labour combined with capital, and unless the labouring classes are fully employed, and capital put to its right use of aiding their work in developing the resources of a country, there cannot be prosperity. This subject, and the opinions of eminent political economists thereon, is more fully treated in my lecture given at Wellington before his Excellency the Governor, on November 1, 1884.

The closer union of labor with capital was needed in New Zealand, and instead of companies—who were but small employers of labor, and yet were deriving an amount of interest from the country far beyond what they should—we required companies which would quickly complete our railway system and develop our mines. Such companies could profitably engage far more skilled and other labour than the whole mass of unemployed now in the Colony; and the additional workmen settling here and spending their earnings amongst us would soon diffuse a stream of wealth to fructify in New Zealand.

As already mentioned, we want population to consume the now unremunerative produce of our hard-working farmers, who have been erroneously told that putting duties upon articles imported into the Colony necessarily renders everything far dearer to *them*. This statement, as Mr Joyce, M.H.R., recently pointed out, is wholly incorrect; for manufacturing *within* the Colony has in every known instance lowered the prices of articles to the consumer, and benefitted—through increased employment—the wage-earning classes.

The other side of the question has not been fully placed before our country population, viz., that with the development of our mining and other industries, and the increase of our town population, a greater demand and a far better Home market would be opened for their produce.

The bright spot on the horizon was the construction of the East and West Coast Railway, which from every point of view was a matter for rejoicing, and one upon which we can heartily congratulate Canterbury. This Province, though suffering quite as severely as Otago, has shown both vitality and energy, and furnishes in the union between all classes to push forward this great railway work—an example which if we followed in regard to Otago's improvement might soon be taken up, and fresh vigor diffused throughout the Colony.

As regards our heavy loss through employing foreign labour, it had been said that through the manufacture of woollens outside the Colony since 1860 the working classes had been deprived of nearly £2,000,000 in wages, and that a considerable loss through the same cause still continued. Mr Blair in 1884 had said it was possible to produce and make three-fourths of the goods we bought from other countries, that is four out of the six millions sterling worth of goods we now import could be manufactured in New Zealand.

It may be asked, what is the view of New Zealand's position taken by unprejudiced outside observers. First, in regard to the possible effect of the movements of foreign powers in these seas. A summary of Bishop Moorhouse's last speech before leaving Australia, on the necessity for Imperial federation, shows that this sensible and eminently practical prelate said "his conviction was that in the time to come small communities, however virtuous, would not be able to maintain an independent existence. We were approaching an era of

great empires. Should there be a great empire of British-speaking people? If not, we could not hold our own in the great time coming. What was going to be the next move of Prince Bismarck, that man of mystery? He did not think that he had been so mysterious that some could not lift the mantle and see the scheming face beneath. Had not what he had been doing recently shown that his next step would be to take Holland, then Borneo, Java, New Guinea, the Caroline Islands, so that Germany would encircle Australia all over her northern frontier. Then, if we were separated, and Germany went to war with England, than which nothing was more likely, Germany would at once seize our small navy, for the same reason that England seized the fleet of Denmark in the time of the great war with France. Therefore we wanted the protection of the Home fleet, which we should not get unless we federated. We must be federated to be safe—if we were to maintain that sense of brotherhood which held us all together as subjects of one great power for the world's good. Professor Max Müller had said that the world would be intolerable if it were not for England."

Secondly, as respects our New Zealand trade, the father of our House of Representatives recently told his constituents that, with all the advantages of New Zealand, "so ignorant? or so prejudiced are our public men as to the true principles of political economy—so utterly helpless are we and destitute of mutual confidence in each other—that we can find no means of developing our vast resources, except by sending out of the country three to four millions a year—the *whole of our surplus*" Mr Macandrew further painted out that a Home market for our products and produce is the best of all markets. Respecting the value of a Home market, the father of political economy in Great Britain wrote:—"The greatest and most important branch of the commerce of every nation is that which is carried on between the inhabitants of the towns and those of the country." The inhabitants of the town pay for the rude produce "by sending back to the country a certain portion of it manufactured and prepared for immediate use." Adam Smith further says:—"Whatever tends to diminish in any country the number of artificers and manufacturers, tends to diminish the home market, the most important of all markets for the rude produce of the land, and thereby still further to discourage agriculture."

The export trade of Great Britain illustrates the results of her policy. The 'European Mail' of February 19th last, when dwelling upon this subject, said that Mr Kimber had stilted in the House of Commons, only four days previously, that the large proportion of the population of this country dependent entirely upon its external trade, was annually increasing by hundreds of thousands; while that external trade had, during the past two years, gradually declined to the extent of nearly eighty millions sterling (representing in large part the wages of labour), and was still declining. And he asked whether Her Majesty's Government were prepared with any proposals to encourage fresh enterprise to arrest that decline.

This position is very similar to our own, with this important difference, that we happily have abundant resources, only needing to be properly encouraged and developed, to secure remunerative labour to twenty times our present population.

A practical British farmer, Mr William Harris, F.S.S., referring to the advantages possessed by the United States in being able to soon adjust and afterwards maintain a happy balance of industries, so as to keep their rapidly increasing population employed, points out the fallacy of regarding the total value of imports as *the test of prosperity*. He says that Britain, by *giving up farming*, might increase her imports by nearly £200,000,000 sterling a year, and he pertinently asks if that would be prosperity? Food, he adds, which cannot be easily produced at home, is an import, which it is to the advantage of the majority of the population to have *cheaply*. Raw materials of manufacture are also imports, which it is *still more advantageous* to the *wage-earners* to have at the *lowest possible price*. Our working men, he says, take very good care to prevent foreign workmen underbidding their wages in our large wage-earning industries. They are only beginning to see that by admitting the *results of labour* expended in other countries to the detriment of their own, they are admitting what is worse than the *men themselves*. Mr Harris adds, as a sign of decadence, that during the last ten years the imports into Great Britain have been nearly three times the value of the exports therefrom.

Scotland is now suffering from the effects of Free Trade. A paragraph in the 'Otago Daily Times' of 15th December last stated that "statistics published regarding the linen and cotton goods exported from Dunfermline to the United States show an immense decrease in the value of the latter and a smaller but steady decrease in the value of the former. . . . Several hundred looms in the town are reported to be standing compulsorily idle," and similar distress is very prevalent in England. As a contrast to this sad state, protectionist America has, according to her own statisticians, paid off a large proportion of her enormous war debt, by the profits derived from her exports to Britain.

The resolution moved by Mr E. W. Sullivan, and adopted by the Congress held in Sydney in October last, has an important bearing on Trade interchange. He said, "That the time has now arrived when a judicious and discriminating protective tariff should be applied in New South Wales for the purpose of promoting *agriculture* and encouraging native industries." He stated that "New South Wales had tried Free Trade for over twenty years, and the result of it had been to make the greater portion of the Colony a sheep-walk."

Writing on the same subject, Mr Buckingham Pope, the able English barrister, said "that the hackneyed

phrases of Free traders were contradicted at every point by the direct evidence of the senses;" and added that Great Britain and Ireland "are perfectly surfeited by encomiums on Free Trade, Free Breakfast Tables, Free Education, etc. Let us trust (he says) that all these free institutions may not be supplemented by just one more—viz., Free Starvation."

Happily we have not yet reached free starvation, or even the pauperism of a large number of Britain's labouring classes, whose children are fed by charity dinners, and the parents themselves by scraps collected at the houses of their richer brethren; but we certainly are very far removed from prosperity. For years past we have been told that we are on the eve of better things, but the better things have faded like the mirage of the sandy desert.

We are, however, still hoping on, and our manufacturers and producers are straining every nerve, and notwithstanding their many discouragements, are doing their utmost to keep the diminished number of their workmen employed; trusting that our rulers will soon be enabled to take the same patriotic course as those of Canada, and with the same happy result—a result which this meeting can materially forward by a strong and unflagging support.

There was no doubt that cheap money and home manufacture were the essential means whereby New Zealand might, with the blessing of God, assume the noble position to which her resources, climate, and geographical situation fully entitled her.

Cheap money would doubtless flow to this Colony in abundance, were a practical movement made to realise the truth of the assertion that New Zealand is as much a portion of Great Britain as Scotland or Westminster. To this end British trustees should be legally empowered to invest in real securities in this country, and the younger sons whose incomes are now a charge upon the estates of their eldest brothers, should be permitted to capitalise these charges for the purpose of investing in New Zealand or other colonial securities. These points have doubtless been well considered by the Government, but the present seems an opportune time for urging the matter, and also that of the exchange of lands between Britain and the colonies, when the owners have emigrated from Britain to New Zealand or other colonies. This exchange would not be more difficult than that between lands situated in different parts of Britain, which are now being exchanged by the Commissioners at small cost.

The promotion of home manufactures in New Zealand is in the hands of our legislators, and merely needs a discriminating adjustment of the tariff to give our now dormant industries a new and vigorous life. Free trade had pauperised the masses in Britain to such an extent that, as Gladstone had remarked, "Human life is in the majority of cases a struggle for existence."

Mr Giffen had referred to the increase of Britain's population as a proof of her prosperity; but, as a matter of fact, there had been double the increase before a Free-trade policy was adopted.

Since 1870 the United States had increased their commerce by 75 per cent., France hers by 51 per cent., and Germany hers by 40 per cent.; but Britain, though enjoying a period of profound peace, showed only 26 per cent. Since 1873 the consumption of cotton had increased in the United States 84 per cent., on the Continent 64 per cent., but in England only 3 per cent.

The progress of the Protectionist countries was surprising. When it was found that France had during the period named paid as indemnity of nearly £400,000,000 to Germany, and the United States had incurred a heavy war expenditure, of which she had paid only nearly £200,000,000, it might well be asked what would Britain's position be had she been called upon to make similar sacrifices!

With such examples before us, we might well decline to follow Britain's lines, but urgently press for an adjustment of our present tariff, *not* to enhance the cost of articles, but to reserve for our own artisans the manufactures we require.

With such encouragement, and the development of her mercantile marine, New Zealand should in enterprise resemble Spain and Genoa during the palmy days of their maritime power. She should, like Canada, encourage her external trade, and, by opening up her mines and building her own ships, attract a large population which would not only increase her material wealth, but be the best defence against every enemy.

It only remained for him to indicate how our commerce could be most economically and best protected. The First Naval Lord of the Admiralty last year had said that, if officially asked, he would recommend that half the cost of the six-pounder quick-firing guns which would have armed our direct mail steamers should be paid by the British Government. The cost to us would have been about £1,000 per vessel. Had this generous offer been then accepted we should have had an additional trained force, at a very small cost, constantly upon our coasts.

The arming of the Union Steam Ship Company's steamers with half the number of guns required for each of the direct Steamers, viz., two per vessel, would have given us a further and still larger force, and the training needed to handle the guns would have been a most valuable and inexpensive defence preparation.

We had recently been asked to contribute towards the additional vessels with which Great Britain offered to

augment the Pacific squadron, and such vessels to be of the latest approved type. This, in the opinion of the best naval authorities of all nations, was the sea-going torpedo-boat, which would be admirably adapted to our harbors, and would act to great advantage in combination with our armed mercantile marine. A contribution of L10,000, or at most of L15,000 a-year, would cover the expense of from four to six of these formidable vessels; and their small crews could act as instructors. Such a force of mercantile steamers and torpedo boats, together with the vessels maintained from the contributions of other colonies, would, in combination with the British squadron, form an effective and economic defence to our commerce, and at the same time protect the whole of our coast from aggression.

In conclusion Admiral Scott said: I have ventured to place before you what other nations are doing, and how far these doings may now and hereafter affect our trade; and also what steps are best calculated to develop our resources. I have also endeavored to indicate how the present cloud upon our industries might be presently made to give place to sunshine, and likewise how these islands can be efficiently protected at a small cost. I have done this in the hope that the examination of our present position may stir us all up to give a long pull, a strong pull, and a pull altogether, and thus unitedly lift the Colony out of the abyss into which she has been so long sinking.

Trusting that you will cordially join in urging upon our rulers the pressing necessity for the fullest inquiry into the causes of our depression and the best means of removing it, I beg to thank you all for so kindly listening to my paper.

Mr G. P. FARQUHAR said that he was sure that the lecture they had listened to, whether regarded from a Free-trade or Protection point of view, had been a very interesting one. He had much pleasure in moving a hearty vote of thanks to Admiral Scott for his paper.

The motion was carried by acclamation, and the meeting dispersed after the customary compliment had been passed to the chair.

decorative feature

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Notes on the Progress of New Zealand for Twenty Years, 1864-1884:.

By the Hon. Robert Stout,

Premier of the Colony.

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Notes on the Progress of New Zealand for Twenty Years.

THE natural development of the colonies has often engaged the attention of statisticians. There is some difficulty in so grouping the statistics as to show, not merely the growth of the colony, but the lines along which it has progressed. I propose to show the increase in population, in wealth, and in well-being of New Zealand, and also to point out how colonization has advanced in these Islands. Twenty years is a fair period to take for purposes of comparison and contrast. It is especially suitable in the case of New Zealand, as, twenty years ago, the gold fever had begun to cool, and colonists were looking for other sources than gold-mines for the production of wealth.

It would be out of place to sketch the earlier progress of the colony, but it may be here briefly stated that New Zealand has passed through what might be termed distinct economic eras. In the earliest days it was looked upon as the seat of the whale-fishery in the Pacific, and in its harbours were to be found whalers from America, from Tasmania, from New South Wales, and from England, all prosecuting their calling. Shortly after the whale-fishing came pushing traders, who bartered goods with the Maoris, and usually looked upon Sydney as their head-quarters. Then there were in these periods the planting of missions, and the beginning by the Maoris of a rude form of agriculture. The next economic era saw New Zealand, from the small settlements that had been founded by the New Zealand Company and various associations, rapidly produce agricultural products, aided in this by the Maoris in various districts. These products were sold at high rates to the new goldfields of Victoria; and these goldfields did more for the early development of New Zealand than is usually credited, especially when the distance between Australia and New Zealand is remembered—more than a thousand miles.

Pastoral pursuits also became of importance. At the same time as the goldfields of Victoria were started, enterprising colonists from Australia visited New Zealand, and took up large areas of waste lands of the Crown, mostly in the South Island, for pastoral purposes. This might fairly be termed the pastoral era.

Then came the opening of the goldfields in Otago in 1861. A vast population was soon attracted to that district; and, just as the population increased, so the exports of wheat, oats, and potatoes, that had been large in the years 1853-60, suddenly ceased. There was, in fact, a home consumption for everything that could be raised. Nay, more; New Zealand had to depend upon foreign countries for her food-supplies. From South America, Chili particularly, and from South Australia, she drew her wheat and flour. Butter and cheese and hams she had to obtain from England and Ireland. After 1864 agricultural produce began more rapidly to develop; and for some years past we have entered, and are still entering, on manufacturing enterprises. Not that our pastoral or agricultural pursuits have decreased; on the contrary, they have largely increased; but along with their increase we are slowly building up a considerable number of manufacturing industries.

I propose to view the progress that New Zealand has made, under the following heads:—

- To deal with population, including under that head the location, the education, the birthplaces, the religions, the crime, and the morals of the people. Under the education of the people, it may also be well to notice those things that go to make up the social and intellectual well-being of the people—libraries, museums, &c.
- Trade and shipping development.
- The mineral development.
- Pastoral development.
- Agricultural development.
- Manufactures.
- The increase of wealth, advance in credit, and general material advancement.
- Probable future developments.

I. POPULATION, ETC.

To begin first with the population, New Zealand had a population, at the end of 1864, of 184,131 persons, not including those of the Native race; but of that number 9,136 were officers and men on military service. We have now practically no army, such as existed in 1864. The Native difficulty does not now, as it then did, loom largely in the public mind. We have, it is true, a police force for the colony, but it only numbers 238 armed constabulary and 490 police. While for the defence of our ports from foreign aggression we have as a nucleus for the Volunteer movement the following number of artillerymen at each port: Auckland, 26; Wellington, 27; Lyttelton, 27; Dunedin, 26: making a total of 106. We do not need officers and men to fight the Maoris now, and, so far as foreign aggression is concerned, we have of thoroughly drilled Volunteers no less a number than 10,110, made up as follows: Adults, 8,530; cadets, 1,580; whilst there are many of our population who have been drilled, but who are not enrolled in any permanent Volunteer corps. The total population at the end of 1884, exclusive of Maoris, was estimated to be 564,304 persons, of whom 306,667 are males and 257,637 females. Perhaps there are now in the colony about 45,000 Maoris. It was estimated that in 1881 there were 44,097 Maoris, but it is impossible to state at present their exact number. Amongst our population, however, we have people from: all parts of the world. Of coloured races the largest number, outside the Maoris, belongs to the Chinese empire. At the last census, in 1881, we had no less than 5,033 Chinese. But, if we take the birthplaces of the settlers in the colony, it will be seen that those born in New Zealand now number considerably more relatively than they did in 1864. In 1881 45.60 per cent, of the people were born in New Zealand, and as the population of the colony increases the percentage of native New Zealanders will soon show a higher percentage. The following were the nationalities for the years 1864 and 1881 respectively:—

As to the religions of the people, the census of 1881 gave the following: and, relatively, there will not be much change—namely, 41.50 per cent. Church of England, 24.09 Presbyterian, including under the head of Presbyterian the various Presbyterian organizations. In New Zealand there are two main Presbyterian bodies, what is called the Presbyterian Church of New Zealand, and the Presbyterian Church of Otago and Southland. One does not interfere with the territorial jurisdiction of the other, and they are managed by distinct Church Courts. Of Wesleyans there are 9.52 per cent. The following statement will show the religions in the years 1861 and 1881 respectively:—

There can hardly be said to be any place noted for a particular religious belief. The original constitution of Canterbury was Anglican; of Otago and Southland, Presbyterian; and of New Plymouth, Nonconformist: but that has been altered by the subsequent colonization of the country. There is, however, a larger proportion of Presbyterians in Otago and Southland than in any other part of the colony, and in Canterbury perhaps there is a larger proportion of Anglicans.

In 1881 there were 730 clergymen licensed to marry, and here it may be mentioned that every clergyman is licensed to marry on application by the head of his church or by twenty-four of his people to the Registrar-General. The number licensed to marry in 1861 was 247.

The test of the popularity of the churches can hardly be determined by the number of marriages performed by the clergymen. The Anglican Church still insists upon marriages being in the church, and so does the Roman Catholic, while the Presbyterian body allow their clergymen to perform the marriage ceremony in private houses. Marriages are also performed by Registrars, and these have, in late years, greatly increased. It may be noted that in 1864 and 1884 respectively the marriages performed by the various clergymen and Registrars were as follows:—

Still, dealing with the population of the colony, it may be well to notice the birth-, death-, and marriage-rates, which, for the two years 1864 and 1884, were as follows:—

The marriage-rate is the lowest in all the Australasian Colonies. In the other colonies the rates were as follows for 1884:—

The deaths recorded were 5,740, the rate being 10.39 per 1,000 of the mean population. Only once in the twenty years has the rate been so low—viz., 10.13 per 1,000 in 1871. The rate in 1864 was 17; and it has been during the last twenty years as follows:—

The death-rate in New Zealand is considerably below that of the other Australasian Colonies, and much lower than in England, the rates for the last eight years being as follows:—

The occupations of the population show the different avenues in which people are now seeking employment:— Occupations. 1864. 1881. Trade, commerce, and manufactures .. 7,625) .. 70,926 Mechanics, artificers, and skilled workers .. 12,118 J Agricultural and pastoral ... 12,089 54,447 Mining.. 12,527 .. 14,273 Professions—clerical, medical, and legal .. 6191 Teachers, surveyors, and other educated 1 .. 10,233 professions 1,106 Labourers 12,6391 Domestic and general servants .. . 6,202 .. 41,635 Miscellaneous 13,991 No occupation stated (principally women and children) 92,282 .. 298,419 172,158 .. 489,933

I now come to the education of the people, and that may be tested in two or three ways. In arriving at the education of the people by an enumeration of those who are returned as able to read, or to read and write, we are apt to be misled by the statistics. First, the ages of the population have to be considered. It is impossible to make a correct comparison, as the census returns of 1864 and 1881 were differently calculated. According to the census returns of 1864 and 1881 the following were the proportions per cent, of the population:—

If the ages were tabulated—if those under and over fifteen were taken in the two years—the proportions would be:—

The reason why there was such a high percentage of those who could read and write in 1864 was the large number of adults in the colony, mainly attracted by the gold discoveries. This also accounts for the then vast preponderance of males over females. Excluding military and their families—which consisted of officers and men 9,136, male children 933, women 1,026, and female children 880—there were,—

This state of things has been greatly changed during twenty years. The family-life has grown, and the numbers of young people relatively to old have increased, as the following table will show:—

The most satisfactory thing in the statistics is the fact recorded that our young people are more advanced than their elders in education. This will be seen when it is stated that, of persons between 15 and 20 years of age, 97.48 per cent, were able to both read and write. After 20 years of age there is a slight decrease. Between 20 and 25 it was 96.75, and so on:—

The test by the number of those who married and were able to sign the register can be seen by the following proportions in every 100 marriages of those who signed by marks:—

It will be noticed that there has been a gradual decrease of those who cannot write their names in the marriage register.

In 1864 the colony was divided into provinces, and each province had the management of its own educational affairs, without any interference or assistance from the General Government. In 1875 the provinces were abolished, and a general Education Act passed in the year 1877. We have had since then one system applicable to the whole of the colony. "We have thirteen Education Boards, which have the general management of education in their districts; and for each school district there is a School Committee, elected annually by householders and parents of children. There is rarely more than one school in each district. The Committees take considerable interest in the educational affairs of their own districts. The Boards are elected by the School Committees. Each Board consists of nine members, and three retire annually.

In 1864, though a good deal had been done for education, matters were not, relatively to the population, so far advanced as they are now. As far as I can ascertain the attendance at the schools in 1864 was as follows:—

The total expenditure on education was as follows:—

These amounts did not include school fees, nor, in Otago, the school rates: the sums are merely the votes and expenditure out of the general provincial revenue.

The provision for secondary education, even so far back as 1864, had been, considering the age of the colony, considerable. There was a college at Nelson, a college and grammar school in Canterbury, and a high

school at Dunedin, and some good private secondary schools in other parts of the colony. There are now in New Zealand the following secondary schools, viz.: Auckland College and Grammar School, Auckland Girls' High School, Thames High School (for boys and girls), New Plymouth High School (for boys and girls), Wanganui Endowed School, Wellington College, Wellington Girls' High School, Napier Boys' High School, Napier Girls' High School, Nelson College, Nelson Girls' College, Christ's College Grammar School, Christchurch; Christchurch Boys' High School, Christchurch Girls' High School, Rangiora High School (for boys and girls), Akaroa High School (for boys and girls), Ashburton High School (for boys and girls), Timaru High School (for boys and girls), Waitaki High School, Otago Boys' High School, Otago Girls' High School, Southland Boys' High School, and Southland Girls' High School. All these are in full operation.

We have now also a New Zealand University, which is purely an examining body; it confers degrees, but it has no teachers in its employment. The teaching part of the University work is done by affiliated institutions. At present they are as follows: The Otago University at Dunedin, the Canterbury College in Christchurch, the Auckland University College in Auckland, the Nelson College at Nelson, and St. John's College, Auckland.

The expenditure on University education in 1884 was £26,815. The number of students was 499.

The expenditure on secondary education was 671,517 the attendance being—roll number, 2,577; daily average, 2,351.

The expenditure on primary education was £363,316, inclusive of £49,679 on buildings: the attendance being—roll number, 96,840; daily average, 75,391.

The morals of the people are usually tested in the following ways: (1) By the amount of police protection they require; (2) by the criminals sentenced in the Courts; and (3) by the number of illegitimate births. In 1864 the police force also was under the control of the Provincial Executives; the number in proportion to the population was about one policeman to every 462 persons. In 1884 the number of civil police was only 490, or taken along with the armed constabulary, including the artillerymen, the total number was 831. Compared with the other colonies, where there has been no Native trouble, New Zealand stands well, as will be seen from the following:—

The other test is the number of offenders found guilty in the Courts. Crimes may be classed under two heads: what may be termed petty offences, and grave offences—offences dealt with by Magistrates and by the Supreme Court. A Magistrate can only deal with simple assaults and petty larcenies, breaches of by-laws, and other mere police offences; whilst the Supreme Court deals with graver questions of theft, and all the higher crimes, felonies, and misdemeanours. Taking the statistics of the two years, it will be seen that in 1864 the total number of convictions (exclusive of Maoris) in Magistrates' Courts was 11,357, being at the rate of 65.95 per 1,000 of population, whilst in 1884 it was 17,068 or 31.98 per 1,000 of the mean population, showing that, though our population has increased, our crime has greatly decreased. Of these, the convictions for drunkenness amounted to 6,527; but it is to be observed that, if one person is convicted five, six, or a dozen times, each conviction is counted as if it had been a separate offender, and therefore the proportion of persons convicted to the population cannot be given, but only the proportion of convictions—viz., 11.81 to 1,000 of population for drunkenness. The convictions before the superior Courts in 1866 were 282, and 1884 219, or 0.39 per 1,000.

There has been a gradual decrease in the number of offences against the person. There were only 871 in 1884, the proportion being 157 per 1,000 of population. The proportion of offences against property in 1884 was 2*14 per thousand of population.

Including offences dealt with summarily, and also in the higher Courts, compared with the other colonies New Zealand stands the lowest in the criminal record, being, for offences against the person and against property, 3.71 per 1,000, whilst in Victoria there were 3.86; South Australia, 4.05; Tasmania, 6.98; Queensland, 7.80; and in New South Wales, 10.67. In juvenile crime New Zealand is also exceedingly low, and no doubt that has been caused by the elaboration of the industrial-school system, which has been permanently adopted in New Zealand. The Government has industrial-school institutions directly under its control in Auckland (at Newton and Kohimarama, treated as one school), at Burnham in Canterbury, and at Caversham in Otago. In connection with these three institutions there were the following children at the close of 1884: Resident in the schools, 432; boarded with foster-parents, 384: making a total of 816 maintained at the expense of the State. There were also 347 children at service or with friends, although still under the legal protection of the managers of the schools. There is also an industrial school and orphanage at the Thames, supported by the Government, but under the management of a local Committee, in connection with which there were at the end of the year 1884 seventeen committed children, five of whom were at service or with friends. There are also what may be termed private institutions to which children are sent, for whom the Government pays, as a rule, about 7s. per week, these are: St. Mary's School in Auckland, St. Joseph's in Wellington, and St. Mary's in Nelson. These institutions are Roman Catholic.

The children committed under the industrial-school system are of three classes: Children who themselves have done wrong, children who were in destitute circumstances, or whose parents have either done wrong or

neglected them. The total number committed under the Act in 1884 was 313, who may be classified as follows: Destitute, 195; vagrant, 11; residing in disreputable houses, 23; uncontrollable, 27; guilty of punishable offences, 37; committed by agreement with the parents, 20.

It may also be noticed that, though crime has decreased, a great number of those who are in our gaols are what may be termed "habitual criminals" or "habitual drunkards." In 1884 there were 483 males and 81 females who had been once convicted, 282 males and 65 females who had been twice convicted, and 720 males and 579 females who had been convicted three or more times. The birthplaces of the prisoners were as follows:—

The low percentage of the New Zealand born population is, no doubt, partially accounted for by the fact of all the young children having been born in the colony. At the same time it is believed that the people in the colony are, compared with the people born elsewhere, less criminal. This, no doubt, may be accounted for by education, by surroundings, and by greater material comfort. As to illegitimacy—the third test that is applied to the morals of a community—the following are the statistics: The number of illegitimate births registered in 1884 was 587, or 2.90 of every hundred births. In 1873, which is the earliest date of which there is any reliable record, the proportion was 1.416. As compared with the other colonies New Zealand stands well, as will be seen from the following statement of illegitimate births in the Australasian Colonies for the last ten years per 100 births:—

There seems, however, to be an increase of illegitimate births in New Zealand as the colony grows older, and as the population gets more dense in the larger towns.

The religions of the prisoners for the year 1884 were as follows:—

It will be necessary now to note the provision that has been made during the past twenty years for those things that tend to increase the happiness of the people—providing for their social enjoyment and intellectual life. We have libraries in every village. In Auckland there are a museum and a public library, as well as an art gallery. Wellington has a large library, a very fine museum, and a library of scientific works connected with the Scientific Institute. In Christchurch there is a magnificent museum—better, indeed, than either the one in Melbourne or in Sydney. It has also a large public library. In Dunedin there are a very fine museum and an art society, which holds exhibitions of pictures once a year. Art societies are formed also in Auckland, Wellington, and Christchurch. There are a University library, an Otago Institute library, principally for scientific works, and a large athenæum library—all in Dunedin. Invercargill has a handsome athenæum building. A test of the desire for information amongst colonists may be obtained by a comparison of the newspapers published in New Zealand, and the books and literature imported, as well as the newspapers posted. The value of books imported in 1884 was £115,246. This does not include magazines, newspapers, &c., and books coming by post. Then, the number of newspapers published was 49 daily and 91 weekly, bi-weekly, and tri-weekly, and 32 others, making a total of 172, or one to every 3,281 of the population. In England and Wales the number was 1,962 newspapers, or 1 to every 13,828; in Ireland, 152 newspapers, or 1 to every 32,585; in Scotland, 184 newspapers, or 1 to every 21,013; and in the United States, 10,771 newspapers, or 1 to every 4,656 of the population. There are theatres in every town, also concert halls, musical societies, and debating societies, and the New Zealand Institute—an institute founded for scientific purposes—has no less than eight branches. A handsome volume is published every year giving the researches of the members, and its pages show that great attention is paid to the natural history of the colony. In 1864, though there were the nuclei of libraries, there had been little development in that direction, nor were there any museums in existence; and the New Zealand Institute was only incorporated by Act in 1867.

II. TRADE AND SHIPPING.

The trade of the colony has undergone many changes in twenty years. The character of the shipping has been entirely altered. Up to 1864 our goods were brought to us from England mainly in wooden ships, and these took our produce from the colony to other countries. It is true that there were steamers running between Melbourne and the colony, and occasionally from Sydney, but these were small compared with the steamers now performing the passage. After 1864 iron ships began to be numerous. But now we have direct steam communication with England, two services of most magnificent vessels, comprising the following: "Ionic," 4,753 tons; "Coptic," 4,367 tons; "Doric," 4,744 tons; "Tainui," 5,200 tons; and "Arawa," 5,200 tons, belonging to the Shaw, Savill, and Albion Company; and the "Rimutaka," 4,474 tons; "Ruapehu," 4,163 tons; "Kaikoura," 4,474 tons; "Tongariro," 4,163 tons; and "Aorangi," 4,163 tons, belonging to the New Zealand Shipping Company. There is a fine mail service to America by the San Francisco route; the steamers leave the colony once every month and arrive once a month, calling on their way at Honolulu.

The number of ships and tonnage do not seem to have so largely increased, considering our exports and other trade; but, of course, that may be partially accounted for by the fact that the steamers are larger, and make more rapid voyages. The shipping in 1861 was the following:—

In 1884 the number of ships entered inwards was 852 vessels, of 529,188 tons, made up as follows:—

The shipping outwards consisted of 872 vessels, of 534,242 tons, viz.:—

One thing these tables show is that our English ships had, after landing their goods, to go to Australia, "to Guam," to South America, or elsewhere, seeking freight; now our exports are so near our imports that we can send our vessels away loaded and not in ballast.

In 1864 the imports amounted to £7,000,655; in 1884 to £7,663,888.

In 1864 the exports amounted to £3,401,667; and in 1884, £7,091,667.

It may be well to give a table showing the exports and imports during the last twenty years, and earlier (see table in Appendix No. 1).

It will be observed that the imports have not increased so largely as might have been expected; but this can easily be explained: First, local manufactures have wonderfully increased; and, second, the price of commodities imported has fallen. For £1 we obtain now in clothing what must have cost us £1 10s. in 1864; and other goods have similarly fallen in value.

The increase of our imports and exports will be seen by a diagram (see Appendix No. 3), which has been prepared by Mr. W. N. Blair, Assistant-Engineer-in-Chief of the colony. One observation may be made on the diagram. The imports show a great variation, jumping up to high figures after the discovery of gold and after the beginning of our railway-making in 1870. Our exports have gradually, almost uniformly, increased since 1854, showing few jumps if the value of gold is excluded.

I intend further on to speak of the development of the manufacturing industries. Bearing on this question, it is interesting to note how the population has increased, especially about the larger centres, since 1864'. This, of itself, is sufficient to show the development of manufacturing enterprise. Of the maps (see Appendix No. 4, A and B). A shows the present location of the population, whilst that in 1861 is shown on map B. The maps also show the density of the population, exclusive of Maoris, in 1881.

The countries with which New Zealand is doing trade appear from the following figures, which show the total value of the imports in 1864 and 1884 respectively:—

This table points out that for a considerable time after the gold rush we depended in no small degree on Australian merchants. Now we import directly, and only get from Australia her own products, and small quantities of British merchandise.

III. MINERAL DEVELOPMENT.

In 1864 but little attention had been paid to the development of any mineral save gold and brown coal. Copper-mining had been tried, but with little practical result. The goldfields are not producing now so much as they did in previous years. There are many reasons to account for this. There is no doubt that the richer alluvial fields—the shallow alluvial workings—have been worked out, or at all events cannot sustain so large a population as in former years; secondly, the development of public works and of agriculture has drawn a great many persons who obtained a precarious livelihood in mining for gold to other pursuits giving a more certain wage; and, further, it requires considerable capital now to develop many of the gold-mines, and that can only be done when the population is considerably larger. The returns from all the gold-mines since the opening are as follows: 10,724,850oz., at a value of £42,368,192, and the amount exported during the year, 1884, was £988,953, showing a slight upward tendency from 1883, when the amount was £892,445; and at the present moment it seems as if there was considerable chance of further developments in mining enterprises. Many of the mines thought to have been exhausted are now being worked and returning handsome profits. In the North Island, especially in the Maori country, we may expect that there will be discoveries of gold.

Attention has also been paid to a kind of mining different to that which existed in 1864. Up to that time mining had been entirely alluvial, and generally in shallow workings; now there are large sluicing claims and considerable quartz-mining. There is also an improved method of separating gold from pyrites, and obtaining better results from quartz by various processes—such as smelting, &c. The number of quartz-mines in 1884 was, approximately, 200.

The production of copper, had it not been for its great fall in price, would no doubt have been considerable; but, even with the fall that has taken place, attention is being paid in one or two districts to copper-mining. The utilization of the large quantities of iron-sand in the colony has been often tried, and is still in process of experimentation. The main development during the past twenty years has been in the production of coal. New Zealand is peculiarly situated in reference to coal; there is hardly a district in the colony which has not brown coalmines. Indeed, beginning at the ranges west of Christ-church and going to the Bluff, you can scarcely travel twenty miles without finding a brown coal-mine: the brown coal is distributed over such a large area of the South Island. In the Provincial District of Auckland, too, from the Bay of Islands down to the Waikato, there are large deposits of brown coal, some of a very superior quality; and these have been and are being worked. In

the Mokau River there is a large coal deposit, and coal has been reported from the Wanganui River. The produce of the coal-mines in 1864 was, approximately, 10,000 tons, but it has gradually mounted up to 480,831 tons in 1884, as will be seen from the following statement showing the amount produced each year for the last seven years:—

On the west coast of the Middle Island there are enormous deposits, thousands of acres of carboniferous land, with seams of more than twenty feet in depth, of the finest steam coal in the world. There is also magnificent gas coal at Greymouth. The area of the coalfields of Westport and Grey may be said to amount to 129,000 acres; and, as the great drawback hitherto has been the want of proper harbour accommodation for vessels to take away the coal, provision has been made for the construction of two harbours—one at Westport and one at Grey—to provide accommodation for steam colliers. These harbours are being constructed in accordance with the plans of Sir John Coode, and, so far as their construction has proceeded, there seems every chance of a considerable depth of water being obtained. One harbour is at the mouth of a large river—the Buller—and the other at the mouth of the Grey River. The production of true coal has largely increased; it amounted to 418,101 tons in 1884. At the same time, New Zealand, owing to the intercolonial steamers having to take return freight from Sydney, and doing it at a cheap rate, largely imports coal from Newcastle, New South Wales. Newcastle coal, however, cannot compare with the Westport or Grey Valley coal, and does not fetch such high prices, the retail prices being—Newcastle coal, on an average, about 32s. to 35s. a ton; Westport coal, 34s. to 36s. a ton; and Grey Valley coal, 33s. to 36s. 6d. a ton.

There is also great probability that attention will be paid to other mineral developments in New Zealand—viz., silver, shale, copper, tin, and other minerals. The region of Collingwood, in the north-west of Nelson, and the whole region of Westland, and the west part of Otago, west of Wakatipu, may be termed mineral regions, which, through their inaccessibility, and being mainly timber-lands, can hardly be said to have been prospected, and the Thames and Te Aroha Districts in Auckland are mineral, with gold, silver, and lead in abundance.

IV. PASTORAL DEVELOPMENT.

I now come to the pastoral development. It has been mentioned that this cannot now be termed the pastoral era of New Zealand, and yet New Zealand largely depends upon its pastoral productions. In 1864 the total amount of wool exported was 16,691,666lbs., while in 1884 there were 81,139,028lbs exported. The number of sheep has increased from 4,937,273 to 14,056,266; the number of cattle from 249,760 to 700,000; the number of horses from 49,409 to 170,000; and the number of pigs from 61,276 to over 200,000. There has been a great change also in reference to the mode of dealing with pastoral pursuits. Before 1864 pastoral tenants were mainly leaseholders, paying a varying rent, according to their tenure and situation in the colony, for the permission to graze their sheep on Crown lands. There are still millions of acres held on pastoral tenure, there being 11,384,603 acres. But sheep and cattle are now fed on freehold land, and this especially in the Districts of Canterbury, Hawke's Bay, and Wellington. In Otago there are more sheep fed on Crown lands than on freehold lands. But there has grown up, in connection with pastoral as well as with agricultural pursuits, the export of frozen meat, and that has encouraged the rearing of sheep on freehold lands that were formerly occupied for grain-raising. The agricultural development is closely connected with the pastoral.

V. AGRICULTURAL DEVELOPMENT.

The agricultural development may be tested in two ways: (1) by the area of land alienated from the Crown; and (2) by the area brought under cultivation. The area of land alienated in 1864 was 7,759,954 acres; in 1884 the area alienated, from the foundation of the colony, was 17,692,511 acres. The area of land under cultivation in 1864 was only 382,655 acres, which included under crop 110,532 acres, and in sown grasses 272,123 acres; whilst in 1884 there were no less than 6,391,075 acres under crop and sown grasses—viz., 1,132,241 acres under crop and 5,258,834 acres in grass.

Then it may be tested by its products. In 1864 we exported almost no agricultural products, and we imported, as has been stated before, much of our food-supplies; but in 1884 we exported 2,706,775 bushels of wheat, valued at £436,728; 128,450 bushels of barley, at a value of £25,138; 51,311 bushels of malt, valued at £14,665; and 2,474,613 bushels of oats, at a value of £267,286. We also exported £33,324 worth of flour, £53,536 worth of potatoes, and 254,069cwt. of frozen meat, at a value of £345,090. The value of hides exported in 1861. was £11,972; in 1884, £38,199. In 1864 £1,865 worth of tallow was exported, as against £234,829 in 1884. During the last year, through the fall in the price of wheat and the export of frozen meat, the export of grain has somewhat decreased, as will be seen from the following:—

Agriculture is now seeking other outlets: orchards are being planted, tobacco is now produced, and linseed

is grown.

Treating the forests as a branch of agriculture, it may be noted that the export of timber has largely increased, as the following table, giving the value of the timber exported, will show:—

A Forest Department has just been started, and attention is to be directed to the conserving and properly utilizing of the existing forests, and to the creating of new forests. The area of forest lands is about 20,000,000 acres; and of this area about 9,000,000 acres contain useful timber trees.

A large amount of planting has been done, and 5,804 acres planted have been subsidized or aided by Government; and, in addition to this, in the Lake and Maniototo Counties large quantities of trees are raised for distribution in the treeless districts of Otago. There have been almost no manufactures of forest products, save timber-ware; a little charcoal has been produced, but it is so small as not worth recording. The same danger that has threatened other countries in the treatment of the forests has been felt in New Zealand. Valuable forests necessary for the maintenance of an equable climate have been destroyed to make way for the farmer or stock-raiser. It is hoped that the evils that have resulted in other countries from such a course of procedure will be sufficient to ensure attention being paid to tree-planting, and to make forest preservation more popular in the colony than it has yet been.

VI. MANUFACTURES.

The manufactures that are first started in a colony are those that are immediately necessary to the colonist in his new surroundings. The bush saw-pit and the blacksmith's forge are the pioneer industries: these are necessary for his house and for the settlement. After them come industries dependent on natural products, which are not so easily obtainable from foreign countries. Soap-boiling from tallow comes early; and after a few years the brewery, even when the malt has to be imported; then tanning leather from hides; but not till a long time after the tannery does the boot factory appear, and the stearine-candle works are quite recent. As New Zealand has magnificent timber, one would expect to find woodware factories early. In reality, however, the cheap timber of America, and even lumber from Norway and the Baltic, were imported up to a late period. At the present time local timbers are being so much utilized that there is little timber imported, and that which we receive is mainly the harder woods of Australia. Furniture, however, of the finer kinds has been and is still being imported. The common or coarser kinds were made early, but even for these we depended upon America. In late years furniture factories have attained a high state of excellence, and there are now manufactured in the colony drawing-room suites that would not disgrace London or Paris. Shipbuilding was an early industry; small schooners were built in almost the pre-colonial days, and still a few wooden vessels are built; but we have had a new kind of shipbuilding—iron and steel shipbuilding are now amongst our industries, and there have been built in the colony several steamers—namely, a total of thirty-one vessels, with a gross tonnage of 3,153, and horse-power 909. This includes one or two steamers framed at Home and put together in the colony. The making of engines too has become established. We have patents even for water-engines invented in the colony; and we have now in all the chief towns foundries, and boilermakers and mechanical engineers engaged in these works. Some months ago a contract was let for the making of locomotives for our railways.

In 1864, notwithstanding that agriculture had made material progress, hardly any agricultural implements were manufactured; even carts were imported; now, New Zealand is an exporter of agricultural implements; her ploughs and harrows are sent to Australia, and the following, amongst other articles, are manufactured in the colony—viz., ploughs, chaff-cutters, grass-mowers, winnowing machines, disc-harrows, drills, reaper and binders, horsepowers, corn-crushers, horse-hoes, scrub-cutters, grass-seed threshers, cream-separators, churns, &c. Various woollen factories have been established in the colony; there are now no less than six in actual operation; these have all been founded within recent years. The amount of wool manufactured in 1884 was about 1,600,000lbs., and agencies are now being established to push the sale of the manufactured tweeds in Australia, and small orders have even been sent to Europe. Other woollen factories are about to start, two being near completion. As the habits of the colonists become more luxurious the manufacture of carriages becomes extensive. Carriages of all kinds are now made in the colony, and some of them are made almost entirely from colonial timber, of which various kinds are very suitable.

I have mentioned that a tannery is an early industry in a colony; we still, however, have to import the finer kinds of leather, and a considerable quantity of ladies' and children's shoes. The imports of leather, boots, shoes, and saddlery in 1864 amounted to £244,727; in 1884, to £251,267. But we can show now an export of leather, which amounted to £37,227 in 1884; there was no leather exported in 1864. Boot factories are now large and extensive, and an industry which has sprung up along with them is the manufacture of the machinery necessary for conducting a boot factory. Saddlery is now made all through the colony, though still a considerable quantity is imported.

Gas is required for lighting our towns, and, following the manufacture of gas, we have had manufactories,

established for the making of gas-, lead-, and composition-pipes, gas chandeliers, and all kinds of gas fittings. We have several firms also who make all kinds of brass-work, work needed for breweries, distilleries, and other purposes; and these turn out brass-work equal to any that can be imported.

Of recent years some attention has been paid to the export of meat and fish in a preserved state; several companies have been started for this purpose, and it is expected that this year the export of canned fish will be considerable, although still large quantities are imported from America. The export of tinned meat has increased; and, no doubt, with the development of orchards the export of preserved fruit will be soon noted in our Customs returns. Some attention has been paid to the planting of olives and oranges, and in the north of Auckland there will be a considerable amount of tropical and subtropical fruits produced. A little has been done for the rearing of silk-worms; and the planting of the grape has led to the production of wine—both these in very small quantities. A small factory has been started for carpet-weaving. The clothing factories are very extensive, and there are factories for hat and shirt-making. All those things that are needed in our houses are now being manufactured. We have kitchen ranges and stoves equal to any that can be imported, and we have now chemical factories, which produce not only various kinds of acids, such as sulphuric acid, but chemical manures, glycerine, &c.

In our agricultural industries, too, we have seen considerable development during recent years in the production of cheese and butter for export. In 1864, as has been stated, we were importers of cheese, butter, and hams; we now export these. Last year the export of these productions amounted to £104,100. The utilization of the New Zealand flax has always been difficult; it has been almost impossible to separate the gum from the fibre. Still we have cordage factories, and, as Manilla is imported, we produce all kinds of twine. There are cordage factories in Auckland, Christchurch, and Dunedin. Small attempts have been made in glassware, and there are considerable numbers of tinware factories. The actual statistics of the factories it is difficult to obtain. Hitherto there has been no complete record taken at the enumeration of the census, but in 1886 it is proposed to find out accurately the number of manufactories, the amount of goods produced, and the number of workmen employed. I estimate the amount of tallow made up into soap and candles for 1885 to be as follows:—

There are other small industries which it may not be necessary to state—brush factories, &c. One sugar refinery has been established in Auckland. Sugar is brought from the Pacific Islands for the purpose of refining, and the refinery is a large and a very complete one. It may be noted that in Auckland there has been a larger development of small industries than in any other part of the colony. Many of these have arisen out of the timber industries, and some from the fact that the people in Auckland had to depend upon small industries, as their country was unsuited for any large production of either wool or grain. Some of the small industries in the colony may be mentioned. They are manufacture of tobacco and cigars, blacking, confectionery, pottery and briekware, paper, aerated waters, jam, essences, perfumery, writing ink, pianos, organs, taxidermy. There is also a considerable amount of gold and silver smiths' work done in the colony. There are two paper-mills producing brown and wrapping papers, and some printing paper. Printing, book-binding, and stationery manufacture (from imported paper) are common to all the larger towns. Almost all these industries are the result of twenty years' growth.

The advantage that New Zealand will have in her manufacturing industries are—(1) her climate—she has neither an excess of heat nor cold; (2) her large coal deposits; and (3) never-failing water supplies in almost any part of the colony.

VII.—INCREASE OF WEALTH, ADVANCE IN CREDIT, AND GENERAL MATERIAL ADVANCEMENT.

The material well-being of the colonists may be tested in various ways. One test is the increase in wealth. The mere amount of money deposited in banks is no criterion of the increase of wealth, because the wealth of the colony may not be in circulation. It can be shown by the increase in the number of houses, and the different kind of houses now in existence compared with what were in existence in 1864. In 1864 the total number of houses was 37,996; of these, 25,463 were constructed of wood, 1,082 of stone or brick, and 11,451 of other materials, principally raupo houses and tents. According to the census of 1881 there were 103,335 houses in the colony, of which number 87,646 were constructed of wood, 4,062 of brick or stone, 2,917 were tents, and the remainder were sod or clay huts and raupo huts. In the towns brick and stone have taken the place of wood, and in the country, in many districts, wood has taken the place of clay and daub. All the houses are being added to and increased in size. Then, money has been expended in roads, fencing, and improvements, as can be seen by the number of acres brought into cultivation since 1864, statistics of which I have given in a previous part of this paper. The furniture in the houses and the clothing of the people have vastly improved during the past twenty years. But even in the accumulation of money there has been an enormous advance. The amount in the savings banks in 1864 was £94,248 6s. 8d.; in 1884 it was £1,926,005. The amount of the deposits in ordinary

banks in 1864 was £2,461,166; in 1884 it was £9,372,004—namely, £6,043,956 bearing interest, and £3,328,048 not bearing interest. And then since 1864 a new mode of investment has been started in New Zealand; I refer to life assurance societies. In 1864 there was little life assurance business done in the colony, and that which was done was in a few European offices. The Government started life assurance in 1869—70; and there is now in funds to the credit of the Government Life Association £972,775 14s. 8d. The Australian Mutual Provident Society of Sydney has done large business in New Zealand, and it has at least £850,000 invested in this colony. There are other Australian companies—the Colonial Mutual, the National Mutual, the Mutual Life—all doing a considerable business. I believe it is not an exaggeration to say that one person in every seven holds a policy in a life assurance office, and I doubt if there is any country in the world that can show, in proportion to the population, such a percentage of insured lives as New Zealand can. This is one means of investing savings.

The value of the personal property in New Zealand that is liable to taxation amounts to £40,000,000; but if the £500 exemption were included the amount would be £53,000,000. The total value of real property held by colonists is £75,000,000; and it is calculated that the Native lands within five miles of a road suitable for horse traffic are worth £5,750,000; and the education, church, municipal, and other reserves £11,750,000.

Building societies are very popular, and friendly societies are widely diffused. There are fifteen friendly societies, with 18,848 members, in the colony, with funds amounting to £255,371 16s. 11d.; and there are forty-seven building societies. There are various societies also for lending money, and which receive money on loan and deposit, performing the function, in fact, of a deposit bank. I have not been able to obtain complete statistics of this class, but I estimate the capital invested in these to be £500,000.

As showing also the things that have been done for the material well-being of the people, one may take the length of railways. In 1864 the system was only being begun, and that in a very small way. Since 1870 the colony has undertaken the construction of railways, and there are now 1,527 miles of railway open.

Then, another test of the conveniences of civilized life is the length of telegraph-lines and the number of telephones used. The total number of miles on which telegraphs are laid is 4,264, and the number of miles of wires is 10,474. There are telephone-exchanges in the following cities: Auckland, Wellington, Nelson, Christchurch, Oamaru, Dunedin, and Invercargill, and there are telephone-stations in other places. The total number of telephones used is 1,961. The postal and telegraph revenue amounts to £284,245. The number of letters carried in the year 1884 was 16,611,959. The number of telegrams sent was 1,654,305.

In 1864 the means of communication between the principal ports of the colony by sea were very limited, principally by small sailing vessels, a few steamers, and an occasional steamer for Victoria, which, calling first at the Bluff, would afterwards proceed via Port Chalmers and Lyttelton as far as Wellington, from thence returning to Melbourne. In 1884 the Union Steamship Company of New Zealand had a fleet of twenty-eight fine steamers of an aggregate tonnage of 39,000 gross register; and the ordinary services of the company include weekly boats from Melbourne and Sydney to New Zealand, and *vice versa*, and almost daily communication with the principal New Zealand ports. In addition, there is a monthly service between Auckland and Fiji; and in the latter colony one of the company's boats plies regularly between the different islands of the group. During the summer months supplementary services are run over all the company's lines, and special excursions are made to the West Coast Sounds. In 1884 a new feature was the introduction of midwinter excursions to the South Sea Islands. The company has also now the contract for the mail service between Auckland and San Francisco.

There is also now direct fortnightly communication between Great Britain and the colony by the splendid steamers belonging to the New Zealand Shipping Company and the Shaw-Savill and Albion Company.

It may be noticed also that, with the increase in the wealth of the population, the possibilities of living in comfort have been greatly increased in another way. The prices of provisions have fallen since 1861. The tables in the Appendix No. 2 will show the contrast in the main articles of food. The prices of clothing have also fallen since 1864 proportionately, if not to a greater extent than those of provisions.

Then, the number of miles of streets and main roads made is very considerable; in fact, it may be said that throughout the length and breadth of the colony there are roads constructed. Of course, as settlement increases, new-roads have to be made; and in the bush districts they are very expensive.

The number of incorporated towns where gas is used is twenty-seven. The number of towns incorporated is sixty-nine, and the number of town districts, which are smaller incorporations, corresponding, in fact, with villages, is forty-nine. The number of miles of postal routes is 527, and the annual number of miles travelled with mails is 3,295,901.

Another test is the amount of money-order work done. The number of money orders has increased from 16,592 in 1861 to 186,052 in 1884, and the amounts from £78,557 to £572,666.

The revenue of the colony has been considerably augmented:

The expenditure has been increased by the fact that large sums have been borrowed for the prosecution of

public works. New Zealand has also been placed in a position different from most other colonies, by having had a large war expenditure. The total public debt is £30,649,099, but, of this amount, large sums have been expended in public works, which are now returning considerable interest. The average interest on all the railways opened for traffic was in 1881 3 per cent. on £11,810,194.

No doubt, as the colony increases in wealth, this rate will be considerably increased.

I might, before concluding, point out what different ideas of well-being people in the colony have had. In the early days, when the settlers first landed, few of them were able to obtain even a weatherboard house—a house of sawn timber, with a brick chimney, was not only a great rarity but almost unknown. They had to live in what were called "whares," or huts made of flax or daub. That era has now passed. Even in the farthest outlying settlements a settler is almost able at once to live in a well-built cottage, and it is not long till he demands all the accessories of civilization—roads, postal services, &c.; and as soon as a small township is started it has its own local organ or newspaper.

VIII.—PROBABLE FUTURE DEVELOPMENT.

As to the future, it is difficult to predict in what particular line development may proceed. I have no doubt that considerable attention will be paid to dairy-farming. The country seems suited for it before almost any country. Grass grows all the year round in many districts; there is no snow or cold weather, requiring the cattle or sheep to be housed. The winter, in fact, is evergreen. Then, the colony does not suffer from droughts; water can be got anywhere, and the number of cattle and sheep that can be maintained compared with the acreage far exceeds that of any country in the world: and just as railways increase so settlement will increase. Population will increase, and at a more rapid rate than in old countries. Agriculture will become more intense; smaller farms and industries of a more varied kind will soon be common. It was not until after the railways had been inaugurated—in fact, it was not until late in 1872—that the balance of trade in our favour in cereals was reached. Up to 1872 the balance of imports of wheat and grain and flour was against the colony, but after the railway-system began to be developed this was changed, and since 1872 we have been large exporters of agricultural produce. This, no doubt, in future years will take other channels; we may not send more grain, but we shall send more meat, more butter, more cheese, more leather, and we shall send also the manufactured articles that are easily produced from our pastoral and agricultural products. Our gold-mining also seems increasing, and attention has been paid in various parts of the colony to the development of other mineral wealth, and manufactures are rising into importance. With the opportunities given to our youth by our educational system, and the bias that they will have in after years towards industry owing to technical training, we may expect a vast increase of material wealth: and our intellectual advancement and our amusements, that should make up so large a share of our social life, will keep pace with our other progress. The outlook of New Zealand may be said to be extremely favourable, and he who has to compare 1904 with 1884 will be able to show as great a contrast as I have portrayed between 1864 and 1884.

I have attempted in this paper to point out, briefly, what the colony has done in twenty years, believing that, by making such a contrast, people outside the colony especially will be better able to gauge our prospects for the future, and also appreciate what our colonizing efforts have been. Many things that it would have been interesting to notice I have had to omit. I have not touched upon our form of Government nor our mode of Government, nor have I referred to the many things of convenience that we possess, as well as many departures that we have taken both in our legislation and in our governmental administration. To have mentioned all these would have made the paper unnecessarily long.

NOTE.—The Statistical Department has prepared a series of diagrams showing—

- The Population of New Zealand.
- The Ages of the People.
- The Birthplaces of the People.
- The Religions of the People.
- The Education of the People.
- Births, Deaths, and Marriages.
- Imports and Exports.
- Sheep, Cattle, and Horses.
- Land in Cultivation.
- Yield of Wheat, Oats, and Barley.
- Holdings of Land under Cultivation.
- Deposits in Savings-banks.
- Revenue and Expenditure.
- Miles of Railways open.

- Miles of Telegraph open.
- Shipping, Inwards and Outwards.
- Deposits in Banks.
- Capital invested in Industries.

I append these to my notes, believing they will probably more clearly show than the figures I have given the progress of the colony. To some of the diagrams I have not thought it necessary to make any special reference.

Appendix No. 1.

Appendix No. 2.

Appendix No. 3.

New Zealand Diagram of Trade 1854-1884

Map of New Zealand Shewing Density of Population of New Zealand (Maoris Excluded) in 1881

Map of New Zealand Shewing location of Population of New Zealand (Maoris Excluded) in 1864

Diagram I. Showing the Population of New Zealand (exclusive of Maoris) at the end of each Year, from 1854 to 1884, and on 30th September, 1885.

population growth of each sex

Diagram II. Showing the Ages of the People of New Zealand (exclusive of Maoris) in Quinquennial Periods, as at the time of the Census, April, 1881.

Diagram III. Showing the Birthplaces of [unclear: t] People of New Zealand (exclusive of Maoris) as at the time of the Census, April, 1881.

Diagram IV. Showing the Religions of the People of New Zealand (exclusive of Maoris) as at the time of the Census, April, 1881.

Diagram V. Showing the Education of the People of New Zealand (exclusive of Maori and chinese) as at the time of Census, April, 1881.

Diagram VI. Showing the Births, Deaths, and Marriages in New Zealand (exclusive of Maoris) during the Years 1855 to 1884 inclusive.

Diagram VII. Showing the Births, Deaths, and Marriages in New Zealand per 1,000 of Populating (excluding Maoris)

Diagram VIII. Showing the Imports, Exports, and Total Trade of New Zealand for the Years 1853 to 1884.

Diagram IX. showing the Total Value of the Exports from New Zealand for the Years 183 to 1884 inclusive, and the proportions to the whole of Wool, Gold, Grain, Flour, Oatmeal, Bran, and Sharps, and the remaining Export

Diagram X. Showing the Sheep, Cattle, and Hores in New Zealand in the different Census Years from 1851 to 1881, ad the number of Sheepin 1884.

Diagram XI. Showing the extent of Land in Cultivation in New Zealand for the Years 1869 to 1885, distinguishing Land under Sown Grasses, under Grain Crops, Green and other Crops, and Broken up but not under Crop.

Diagram XII. Showing the estimated Yield of Wheat, Oats, and Barley in New Zealand for the Years 1869 to 1885 inclusive.

Diagram XIII. Showing the Number of Holdings of Land over One Acre in extent under Cultivation in New Zealand for the Years 1869 to 1885 inclusive, distinguishing those occupied by Freeholders from those occupied on Lease only.

Diagram XIV. Showing the Total Deposits in the Savings Banks of New Zealand at the close of the Years 1867 to 1884 inclusive.

Diagram XV. Showing the Accumulated Deposits in the Savings Banks of New Zealand per head of Depositors and per head of the Population at the close of the Years 1867 to 1884

inclusive.

Diagram XVI. Showing the Total Revenue and Expenditure of the General Government of New Zealand from the Year 1876 (the date of the abolition of the provinces) to the Year 1884 inclusive. (Expenditure out of loans is not included in the figures dealt with in the diagram.)

Diagram XVII. Showing the Total Number of Miles of Railway (constructed by Government) open for Traffic in New Zealand for the Years 1873 to 1884 inclusive.

Diagram XVIII. Showing the Total Number of Miles of Electric Telegraph Line open in New Zealand for the Years 1866 to 1884 inclusive.

Diagram XIX. Showing the Tonnage of Shipping entered Inwards at the Ports of New Zealand, and the Tonnage of Shipping cleared Outwards, during the Years 1853 to 1884.

Diagram XX. Showing the Amount of Deposits, at the close of each Year from 1867 to 1884, in the Banks of Issue transacting business in New Zealand.

Diagram XXI. Showing the Capital invested (value of Land and Buildings, Machinery and Plant) in each of the principal Industries of the Colony of New Zealand in April, 1881.

Our Forests and How to Conserve Them:

A Paper on the New Zealand State Forests' Act, 1885

Read before the Waitemata County Council

By Richard Monk, Esq., J.P.

FEBRUARY 5TH, 1886.

Auckland, N.Z. Printed at the star office, Shortland and Fort Streets. MDCCCLXXXVI.

Note.

At the Ordinary Meeting of the Waitemata County Council, on 8th January last, a circular letter from the Hon. John Ballance, Commissioner of State Forests, was read, requesting the Chairman of the Council to allow himself to be nominated a Conservator of Forests for the County. A copy of "The New Zealand State Forests' Act, 1885," was enclosed for the information of the Council. As the circular and Act dealt with a matter of special importance to this County, and as several members of the Council were largely interested in the particular industry affected by the Act, it was decided to postpone discussion on the subject till the next meeting, in order that members might make themselves more familiar with the new law. During the debate

which ensued, at the meeting on the 5th February, Councillor Monk, J.P., moved the following resolutions on the subject:—

- That, in the opinion of this Council, the forest regulations as yet introduced by the Government are inadequate, and not practically adapted to the requirements of this Province.
- That this Council, in responding to the expression of the Government circular now before it, is of opinion that the New Zealand State Forests' Act of last session sets up a mere semblance of administration, utterly incapable of accomplishing any satisfactory results in retarding forest waste through fires that are becoming increasingly prevalent year after year.
- That while the Council has this belief with regard to existing forest laws, it desires to convey to the Government a hearty sympathy with the principle, that our forests should receive more effort to protect them than is now given.
- That, having this important object in view, this Council respect fully urges upon the Government the extreme necessity of providing during the coming session an exhaustive but practical system of forestry laws, having provisions so varied as to suit the special needs of the different Provinces where forests exist. In doing this, it has the impression that such a code would have been supplied long since, had the Government only been fully aware of the very great value of forest operations to the industrial economy of this Colony, and the enormous, yet comparatively unheeded loss that is being annually inflicted upon this Province through fires that are commonly of wilful origin.

In support of the resolutions, Mr. Monk read the following important statement, which, with his consent, the Council resolved to publish in pamphlet form for circulation amongst members of the Legislature and the local bodies in the Auckland Provincial District. Mr. Monk has had the experience of a lifetime amongst the forests of the Auckland district, and is thoroughly conversant with the conditions of growth of the different species of trees. He has also, as every Auckland citizen knows, had large interests committed to his care for many years past in connection with our timber industry. He is, in fact, a specialist, and a very enthusiastic one, on this subject. In the present paper Mr. Monk does not enter into the question of replanting, but it is understood that he possesses definite ideas and a large amount of information on this part of the subject, which it is hoped he will shortly be able to give to the public.

O. Mays,
CHAIRMAN WAITEMATA COUNTY COUNCIL.

Auckland,

February 15, 1886.

Conservation of Our Forests.

MR. CHAIRMAN AND GENTLEMEN,

While I have presumed in the motion to make allusion to other provinces and the colony, yet the remarks I am about to make should be understood as being intended to apply to the requirements of this province only, as regulations suiting us may be unnecessary in other parts of the colony. I wish also to direct the attention of the Council solely to the consideration of waste by fire, taking no account of the rapid utilization of our kauri. Although this is giving grave concern to those who would like to practice thoughtfulness in the interests of the future, as matters now stand such sentiments are Utopian, experience teaching forest owners that there is wisdom in hastening its conversion into cash, as delay may find it transformed into smoke by the brand of the fire-raiser. The people of this province are possessed of large tracts of land, that the forest now growing upon them is the best and most valuable crop they can produce, and upon very much of these lands perhaps its forest is the only crop of value it ever will produce. Notwithstanding this, we are, to my mind, deeply guilty of acting as if it is a matter of no consequence that this valuable property is being rapidly reduced to ashes. During the past few weeks many millions of kauri and other woods have been destroyed in this way; from far up northward to down southward, near the extreme limits of growing kauri, has the destroyer been spreading his weird mantle of flame. Several large patches of kauri, besides vast quantities of ordinary growths that should have been treasured stores to be brought forth in times of future need, have been wantonly wasted. I have in mind one very valuable piece of kauri bush (belonging to the Crown) that was ruined during this summer. Such a misfortune makes no stir among the people of this province; our newspapers are silent, and yet the reforestry efforts of the next forty years will not reproduce in any part of this colony arboreal growth approaching it either in beauty or

value. The destruction of this one piece I estimate as a loss of nearly £20,000, the bulk of which would have been paid away in wages to the various professions of workmen connected with forest and lumber operations. I also estimate that within the last thirty-five years bush fires have destroyed not less than 340 millions of marketable kauri trees, and three times this quantity of other yet useful kinds of woods. In addition to this, the kauri trees below the present standard of marketable, but yet of a diameter from 1 to 2ft. that have been destroyed by fire is from two to three times more in number than have been utilized by the forester's axe. Within thirty years such growths of kauri will (if preserved) become invaluable partly by natural (though trifling) growth, and partly because commerce will in time develop requirements for which such trees will be sufficiently suitable. The destruction of the 340 millions of kauri first mentioned means a loss to this province of about as follows:—Wages to be paid for labour upon it, before it would reach the ships' rail, in the average proportions of rough and dressed lumber, £950,000. To shipping interests it would average a freight value of £230,000, and to proprietors, merchants, and agents, would total £110,000 more, making a total of £1,290,000; and I believe that those who are informed on these subjects will say that the amount is much understated. It is also to be borne in mind that I exclude the operations of remanipulation incident to manufacturing, and the large industrial interest accompanying retailing.

It is a subject deserving of attention (but that cannot be admitted within the limits of the time to be spared from the regular business of this afternoon) to trace up the economic value of such a sum to this province. To properly realise it one must grasp in its great breadth the distributive characteristic of disbursements made under our timber operations. It is a business that scatters wages with no stinting hand, and it benefits a community in which it is situated far more than the proprietary who run it. A wool crop of £4,000,000 will not give employment to half the population that a timber business (grossing £1,000,000) will thrill with the busy energy of continuous employment. Running a timber concern, like working coal measures, infiltrates wages through the masses, while the proprietary have to be wary if interest is secured on the capital employed. I suspect the people of this province of not realising what its timber industry is doing for them. I do not wish even to suggest that if the kauri trade was to be suddenly withdrawn from Auckland its streets would become grassed to the ankles and the Harbour Board offices would be turned into a storehouse for fishing nets. I believe that the province has resources apart from its timber trade that, if not downright smothered with an incubus of squandered borrowings, will enable it to sustain a large and prosperous population. But nevertheless, as an element of present prosperity and to promote successful settlement, we cannot do better than cherish to the utmost what is now the means of supplying an occupation to a large number of our people. Exclusive of the manufactories, our timber trade is already employing about 2,800 persons. The chairman of a timber company publicly stated that his company paid £99,275 in wages for the year previous to the meeting which he addressed. During the month of December last the bush mill proprietaries paid in wages over £30,000, and during Christmas week between £18,000 and £19,000 was so paid. Suppose that this circulation was withdrawn, what a paralysing shrinkage would soon follow in the operations of our tradesmen and merchants! City properties would rapidly sink in value, rents would decline, so that landlords would wish to be such no longer, while cottagers would sell at any sacrifice the homes built out of the hard-earned savings of years, in order that they might be free to choose some other spot where depression would be less keenly felt. In short, ten to twelve thousand of our population would have their attention forced to other locations than those in which they are now obtaining a livelihood.

It is not our kauri timber only that we need to protect from fire. If the present system of wantonly firing the country is tolerated for another seven or eight years, not only will there be very little kauri left, but there will be a calamitous shrinkage of all other forests. Under the best system of conservation about twenty-five years will bring in the closing phases of our kauri bushes; but when that period reaches the people then living, the large areas of what are known now as common bushes will (if protected from fire) supply them with a profitable and more extended source of employment than that of the kauri to us, and it will be of far more value because of the larger supply of such timber. I have this belief because that many of the woods growing in our bushes, and at present unnoticed, are superior to some of the valued timbers of Europe. For productive dimensions of trunk, they much exceed them, as many of the mill booms of both the Baltic and America are now being supplied with logs scarcely equalling the diameters attained by even such trees as our tawa and tarairi. If, then, the present value of our kauri is so great, and if our ordinary timbers may become a factor of so much moment in the future industrial economy of the country, a mission is imposed upon every one in this colony of endeavouring to protect from wanton waste a property that once lost will never be replaced. Seven years ago I tried to impress upon the Government the urgency of providing adequate protection to a resource which, by common assent, is admitted to be of colonial importance. Had earnest effort of conservation from fire been put forth then, the forest wealth of this province would now be £150,000 more than it is.

Let us now glance at some of the provisions that suggest themselves as necessary in an effective scheme for preventing bush fires. I at once admit that it will prove an intricate task to devise forest laws that shall bear

upon their face such an impressment of severity that wrong-doers will not dare to trifle with their precepts, and yet that at the same time they shall not unreasonably interfere with arrangements incident to settlement. So peculiar and complex are the circumstances accompanying this sin of forest-burning, that it will require great care in framing enactments that shall effectually arrest the firing, and yet not trench too much upon the requirement of families who are making homes within districts more or less timbered. I believe that this section of our colonists will prove themselves rather helpful than otherwise in enforcing regulations which will give easement to their own risks from bush fires. Thoughtful settlers have expressed themselves to me as very much concerned over the reckless burning of forests in their districts. They feel that the suppression of this scourge will be a means of imparting increased permanency of value to their homesteads, as the timber industry provides the best market for much of their produce, and is also helpful in supplying them with occasional work. Very few thus interested but will cheerfully acquiesce in the principle that there are months during the summer season when it ought to be held unlawful for them to fire even their own clearings excepting under official sanction, and the interests of the State may demand that it shall control fires for "burning off" at a season when it may jeopardize standing forest, even though that forest is the property of the person so doing.

Legislation should provide power to define and proclaim which shall be the districts for the conservation of which forest laws shall apply. And as it is claimed that the preserving of forests from fire is a matter of public welfare, legislation should have as much in view the protection of forests in the hands of private parties as those owned by the Crown. Conservation should be exercised, but with varied arrangements (to meet practical difficulties), over lands that might be classified as follows:—

- Special—such as kauri, or other kinds of woods interspersed with valuable patches of kauri, making it specially inflammable.
- Dense forest growths, entirely without or having very little kauri, but having, as was before stated, a great prospective value.
- Fern and patchy tree growth, of no importance for timber purposes. But such tracts, when contiguous to or conjoined with forests, are, if fired in the summer months, the foresters' terror. Fires have been kindled on fern ranges miles away from the forests they have eventually burnt valuable bush. There are times when ferns may be safely "flashed," and it may be needful that this should be done, but in forest districts, only under proper supervision.

Rangers would be a part of the machinery appointed under Government sanction, but not necessarily in all cases nominated or paid by it. Private parties would in many places take the cost upon themselves. Such a service during a few months of the year would inflict only a trifling expense compared with the loss of timber and the costly toil of struggling with the fires that now yearly beset them. I would object to rangers that are paid by private parties being merely Government servants. Such persons are often disposed to shirk hard work, and you will never make a good ranger out of a lazy man. The constabulary will be of little service. I know where one is stationed at some cost to a company and where fires have been rife; but with both the Police and the Land Acts in his hands the gentleman has made weight like a stalled calf, and it seems as if the oily tissue of excessive dewlap softens away the energy that should be the glory of a policeman. One reason for this, perhaps, is that there are no stripes or increased pay for scars gotten from cutty-grass wounds—no medal for courageous and persistent effort in suppressing bush fires; yet many a Victoria Cross has been won with less effort and no more risk to life than I have known some men to go through in doing battle in a forest to save it from the flames that raged around them.

Within the proclaimed districts regulations of the following nature would be required:—

- Where there is forest, scrub, or fern, no fires should be kindled (during the dry season) outside of a building until a suitable area had been carefully cleared of rubbish or inflammable material.
- Such fires after being used should be extinguished. Camp fires have been left in the morning when the air was calm, but the wind afterwards rising, sparks have been driven before it, becoming the origin of destructive fires.
- No person shall be allowed to dig for kauri gum without a license.
- Digging without license to subject to fine, or imprisonment if not paid.
- License to be granted free of cost.
- License should define the limits of the area (not too large), and the locality over which it authorises the holder to search for gum.
- It should not be transferable, and should be produced on demand by anyone having an interest in the district.
- Licensee, if wishing to change his ground, will require from Ranger either a new license or an endorsement describing or allotting change of location.
- Holders of licenses to be held liable to do their utmost to extinguish any fires breaking out within the area described in their license.

- A fire occurring under suspicious circumstances (within a proclaimed district), the Ranger should require an inquiry to be held before not less than two justices.
If persons holding licenses are in the opinion of the Bench guilty of omitting to exercise due care and precaution to prevent fire, or shall be wanting in reasonable effort to suppress the same within their boundaries, it should have the power either to cancel or suspend for a time the right to dig for gum, as it may deem the merits of the case to demand. The judgment to have effect throughout the Province of Auckland.
- Any person found guilty of wilfully firing forest should be committed for trial at the Supreme Court just as if he had burnt stacks of wheat or hay.
- Punishment for wilfully setting fire to bush within a proclaimed district should be severe (or the law will be ineffective), say from one day to five years.

I suggest this extreme latitude in the penalty, because that I have known cases where firing was so maliciously done that five years was too little; while in other instances fires have been started with the intention of burning off the fern only, and without the slightest suspicion that it would reach forest that was miles away. Sometimes intervals of weeks have elapsed from the time it was first kindled until it reached the forest it ultimately consumed. In such cases imprisonment for the shortest term would enable the country sufficiently to mark its displeasure at an act which, though done in sheer thoughtlessness, might be a ruinous incident for the district in which it occurred.

The resolutions were seconded by Cr. Sinclair, J.P., and carried unanimously.

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New Zealand Industrial Exhibition, 1885.

Prize Essays.

The Treasury, Wellington,

29th December, 1884.

ONE gold medal and twenty guineas, one silver medal and ten guineas, and one bronze medal and five guineas will be awarded for essays on the present condition and future prospects of the industrial resources of New Zealand, and the best means of fostering their development.

In judging of the merits of the essays preference will be given to those which are of a practical character, rather than to mere abstract or theoretical disquisitions. The essays must be sent in to the Secretary of the Exhibition, signed with a motto and accompanied by a sealed envelope containing the author's name and address, on or before the 1st day of December, 1885. This late date is fixed to enable the essayists, if they desire to do so, to utilize the information which the Exhibition itself will supply.

The essays will be submitted to a Board of three persons, to be hereafter appointed, on whose decision respecting the merits of the essays the above prizes will be awarded; provided the essays reach a sufficiently-deserving standard of excellence.

JULIUS VOGEL,
Colonial Treasurer.

Report of the Judges.

Government Buildings, Wellington,

11th March, 1886.

SIR,—

We, having been duly appointed by you to decide on the merits of the several essays sent in under the conditions notified in the *Government Gazette* of the 19th February, 1885, "On the Present Condition and Future Prospects of the Industrial Resources of New Zealand," and having carefully considered such essays, award as follows:—

1. The essays under the respective mottoes of "*Si sit prudentia*" and "Press onward" to be of equal merit, and we recommend that the authors should equally share the first and second prizes;
2. The essay under the motto "*Nunquam dormio*" to be third in merit, and entitled to the third prize.

We beg to enclose the successful essays, and their respective mottoes.

We have, &c.,

W. J. M. LARNACH.

JAMES EDWARD PITZGERALD.

T. KENNEDY MACDONALD.

The Hon. Sir Julius Vogel, K.C.M.G.

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Part I.

THE ATTITUDE OF THE STATE.

IN an essay treating of the practical side of the progress and future prospects of New Zealand industries, it is desirable to avoid dwelling to any extent upon the politico-economical or theoretical views which are held in regard to the comparative merits of absolute free-trade and modified protection. The question cannot, however, be avoided altogether; and before practical working suggestions are made, and before a fair retrospect of the past can be taken, the ground must be cleared by laying down certain theoretical lines to work upon.

It is still a fallacy to believe that a country is necessarily the poorer because its imports exceed its exports, or richer because its exports exceed its imports. The doctrine of the economists, stated in its naked simplicity, is still that "the only direct advantage of foreign commerce consists in the imports. A country obtains things which it either could not have produced at all, or which it must have produced at a greater expense of capital and labour than the cost of things which it exports to pay for them."

J. S. Mill's "Political Economy," Book II., chapter 17, section 4.

It is still a "vulgar theory" to disregard this advantage; though it is to be feared that theorists, whose ideas are "*caviare* to the general," have too frequently disregarded the indirect advantages of diminishing the imports by means of native industries, and have, especially in the case of a new country, treated the matter upon the strictest principle of individualism, and as though it were entirely one between the consumer and the importing

merchant. It is true that a "country produces an exportable article in excess of its own wants from no inherent necessity, but as the cheapest mode of supplying itself with other things." If this be so, then the older economists—had they been acquainted with the conditions of life in a colony such as New Zealand—should have paid more attention to the theory of trade which seeks to foster an extended market for its produce, an abundant consumption for its goods, and a vent for its surplus. If a colony is in that earlier stage when its exports are increasing, and new markets are looming for its produce, it is fair to expect that the imports of articles such as there is no inherent obstacle against producing in the colony itself should begin to decline. It is only common-sense to imagine that, if they do not decline, there is something wrong in the social system. National wealth does not consist merely in the saving of price to consumers of imported goods. It would be easy to show by New Zealand instances that large imports, low prices, reduced wages, and insufficient employment too frequently go together. "A people"—to again quote John Stuart Mill—"may be in a quiescent, indolent, uncultivated state, with all their tastes either fully satisfied or entirely undeveloped, and they may fail to put forth the whole of their productive energies for want of any sufficient object of desire. The opening of a foreign trade, by making them acquainted with new objects, or tempting them by the easier acquisition of things which they had not previously thought obtainable, sometimes works a sort of industrial revolution in a country whose resources were previously undeveloped for want of energy and ambition in the people; inducing those who were satisfied with scanty comforts and little work, to work harder for the gratification of their new tastes, and even to save and accumulate capital for the still more complete satisfaction of those tastes at a future time."

All this is true to a great extent of a new country with large natural resources, a population increasing by native growth and immigration, and a rising generation from whom employment cannot be withheld without greater dangers to the social fabric than would attend a similar want of employment in an older country.

And here it may be well to remark upon the fallacy of the argument that, because—upon a more or less imperfect calculation—New Zealand contains 323,000 people engaged in agriculture to only 11,400 artisans or workers in factories, State encouragement to native industries must necessarily be for the purpose of protecting the latter and keeping them in employment at the expense of the former. Of the 323,000 in question a very large proportion consists of general labourers, having neither interest in the soil nor special knowledge of agriculture. It is a mere accident that such people rank among the farming class, and they are more likely to carry their labour to factories and such-like industries were such in existence for them. New Zealand needs population, and under liberal land laws would be certain to get the kind she requires. Of the mass of men it is probable that a minority alone is fitted to settle on or till the land; local industries' and factories would find employment not only for all the surplus labour in the colonies, but for a very much larger number of hands.

The strict enforcement of the *laissez faire* principle on the part of the Government of New Zealand may encourage low prices for the necessaries of life—though not to the extent which has been supposed—for a few years to come. A judicious fostering of colonial industries, whether as means of producing articles for colonial consumption or for foreign markets, will tend to increase national wealth and the happiness of the individual, by developing profitable employment and encouraging thrift, without interfering unduly with the labour market or the natural ebb and flow of trade, and without affecting to any appreciable degree the prices paid by the consumer.

The object to be aimed at is, that the foreign demand for New Zealand commodities should exceed the New Zealand demand for foreign commodities. However different the conditions of this problem may be in an old country, it can only be solved in a colony by developing every possible form of native industry, and by gradually and judiciously bringing every national resource into play.

We cannot force the consumer to buy domestic commodities in preference to foreign. The consumer is justified in buying the foreign article so long as it is either cheaper or better, even-though this plan, if persisted in, might throw the social conditions of a colony entirely out of gear by presenting the strange anomaly of large fortunes, large bodies of unemployed, and low prices all existing at the same time. But the State is equally justified, without prohibiting importation or imposing duties which prevent it, in encouraging the native production of goods so that they can be sold to the consumer as cheap and as good as the foreign article. Practically speaking, whatever the economist (writing almost entirely about life in an old and settled land) may say, the limited amount of State interference which is now advocated simply means that colonial goods must be produced for a short period, until the industry is firmly established, at a cost which the whole community will have to pay in the shape of bonuses, or which must fall upon the consumers by means of a Customs tariff. In the one case the cost, being spread over a large population, would not be felt: in the other case the consumer would suffer very slightly, and it would be at his discretion, in many instances, whether he suffered at all.

Under this view of the matter the Government of New Zealand would be justified not only in encouraging colonial industries by imposing protective duties temporarily, and where such industries are suitable to the circumstances of the colony—a policy admitted to be defensible—but in doing so by bonuses as well as tariffs. The Government would also be justified in using its influence, on behalf of the nation, in obtaining information

from foreign countries regarding particular industries, in establishing a system of technical education in the colony, and in taking steps to open up markets for New Zealand produce, whether in portions of the British Isles which it has not yet reached, in the Islands of the Pacific and the Malay seas, or amongst the teeming millions of the Indian Empire.

If the view already advocated be not conceded, then the Government is not justified in doing anything else but buy in the cheapest and sell in the dearest market, and see that everything is done to encourage and nothing done to hinder its people from doing so also. It would be a violation of free-trade for the State to limit the hours of employment in factories, or do anything else which might tend to restrict production or interfere with the law of supply and demand. It would be equally wrong to employ the funds of the whole community in maintaining an agricultural college in order to teach one particular part of it how to earn their living or acquire an advantage over the rest.

The strict doctrine of free-trade may be scientifically correct as a paper theory; but, in a new country, it is a *reductio ad absurdum*, even although an array of economists may break a lance in its favour. The circumstances of New Zealand, require wiser and more generous treatment: a policy which shall seize opportunities and look ahead, and a Government which shall not continue to "let well" so severely "alone" that it ceases in the end to be "well" at all.

Having defined the attitude of the State towards New Zealand industries, the matter can be dealt with in its practical aspects.

Part II.

WHAT HAS BEEN DONE.

It needs no exercise of the imaginative faculties, but simply the ordinary capacity of observation with which the average man is gifted, to recognize the wonderful progress in industries and productive powers which New Zealand has made of late years. It is not necessary to dwell upon the earlier days, when order was emerging from chaos, and when the colonist was too much habituated to the arts of war to cultivate the arts of peace, and when industries and manufactories were not dreamed of amid the struggle for bare existence. For the purposes of this essay it is enough to survey the work of the last ten to fifteen years, during which the export of wool, gold, grain, hides, and tallow has grown to such dimensions that New Zealand ranks among the foremost-producing countries of the world. During that period one entirely new industry in the world's history—the export of frozen meat—has come into existence; and, under somewhat altered conditions, and allowing for the fluctuations of the markets, is destined to assume gigantic proportions in New Zealand. The frozen-meat industry is now as firmly established as the production and export of grain and wool. The raw material is abundant, and the capacity for production immense; but, in the case of all three kinds of produce, the market has been equally depressed. Such times of depression must exist, though in minor forms, even when New Zealand frozen meat has surmounted the obstacles which still attend it, and when the grievous burden of excessive freights, and the existence of rings of middlemen, have been removed. New Zealand will always be open to the competition of pastoral countries nearer to the European market; though, if her trade be cleared of its present impediments, the fluctuations of the markets will be readier known and more accurately anticipated. The State can do no more for the frozen-meat trade than has already been done, except to open up, by national agency and inquiry, fresh markets in Asia and other parts of the world. But in the quality of the article, the condition in which it is exported, its adaptability to the English palate, and the facility with which it is taken direct to the consumer will, in the future, lie the main elements of the success of New Zealand's trade in frozen meat. Of the frozen-meat trade, as of the export of wool, grain, and other staple products, New Zealand can re-echo the words with which the Loan and Mercantile Company conclude their annual review of the trade and commerce of San Francisco for the year 1884, and say that, although the low prices ruling for the past two years have been a serious drawback to the prosperity of the colony, yet the bounteous yield has enabled the industrious to maintain their footing, and if repeated in future years will enable producers to cover previous losses, and bring over previous obligations, that were, for a time, a grievous burden to carry.

The value of the export of New Zealand wool in 1884 was £3,267,527, exceeding the previous year by £252,066; gold exceeded the previous year by £96,508; hides by £16,162; skins by £27,861; salted beef by £6,682; tallow by £1,272; kauri-gum by £5,545; and frozen meat by £226,801. In the last-named industry the export was nearly three times that of the previous year. On the other hand, the export of wheat fell off by no less than £630,581, or nearly 60 per cent. Land devoted to wheat-growing had for the most part been given up to grazing and to the frozen-meat industry though, as oats increased by £96,473, that cereal had apparently taken the place of wheat to some extent. Barley fell off by £5,209; but it is notorious that large stocks were held

in the colony ready for better times, instead of being sent to a low and falling Home market. There is nothing unsatisfactory, therefore, in the present position of New Zealand's staple products; and the exports are calculated to profoundly impress the observer with a sense of her material resources, and the healthy flow of capital which has taken place to develop them.

The growth of new exporting industries deserves fuller consideration than can be given it in the present essay. In 1884 butter to the value of £66,593, and cheese to the value of, £25,095, were exported, showing an increase on the previous year of £24,503 in the one case and £18,163 in the other. The dairy factories of New Zealand are yet in their infancy, and there is no industry which ought more to engage the attention and capital of the small producer. So also with bacon and hams, for which the colony is acquiring a special reputation, and the export of which increased in 1884 by £4,159.

The decline in New Zealand flax was very marked, and must continue as the products of imported civilization supplant the raw material of unfilled land. Potted and preserved meats declined by £13,554, partly owing to the trade having been supplanted by the frozen meat, and partly by the remarkably low prices ruling at Home for those choicer and more special potted delicacies which the colony is so well able to produce.

Nor is it only in the exporting industries that the progress of New Zealand has been so marked during the past fifteen years. With the growth of population has come a healthy demand for local industries, and there are districts dotted with factories, some of which, such as those for woollen goods, hold their own with any in the world. In the New Zealand woollen trade one factory has exported goods to Victoria, and sold them at a profit; another has sent a shipment to Glasgow, and a third has sent one to London. There are not wanting signs, even in the present depression and stagnation of capital, that the woollen trade is capable of great extension. Its success in the colony has been greatly due, in the opinion of the manager of one of the largest factories, to the State protection hitherto accorded it. The same authority considers that, if the import duty on apparel and woollens were increased, the New Zealand trade would drive out the imported article, increase the out-put of existing factories, bring into life new ones, lessen the cost of woollens and clothing, and give employment to a very large number of hands.

Nor ought the agricultural implement industry to be passed over in silence. It has been stated that one firm in the South Island pays away in wages £20,000 a year.

The iron and metal trade is another industry of which New Zealand has reason to be proud, for such work as is turned out by Messrs. Burt, of Dunedin, or Messrs. Scott, of Christchurch, need not fear comparison with anything in Birmingham, the metropolis of hardware.

In soap and candles the finest articles are now made; while twenty years ago nothing but tallow dips and common yellow soap were made in the colony.

In leather, boots and shoes, and saddlery the progress has been really startling. From figures quoted by the Hon. Robert Stout in his speech at the closing of the Wellington Exhibition it appears that in 1864 the colony imported about three hundred thousand pounds' worth of these articles. In 1884, though the population had increased from 184,131 in 1864 to 608,101 persons, the imports of leather, boots and shoes, and saddlery amounted to only £251,267, while hides and skins were imported to a large extent. Facts like these are pregnant with hope and encouragement. '

So also with carpets, the manufacture of which in New Zealand is quite of recent date, but is already a flourishing industry, producing articles of sound, durable, and beautiful workmanship, and competing in price with the Home importations.

There are no statistics available to show the number of hands employed, or the value of the land, buildings, machinery, and plant engaged in the manufactories and works of this colony at the present time; nor will such statistics be at the public disposal until after the census has been taken in March next. But between the years 1878 and 1881, the date of the last census, the progress was striking. The number of hands employed increased from 15,177 to 17,938, or a total of 2,761; and the number of manufactories and works from 1,271 to 1,643, or a total of 372. In April, 1881, the capital sunk in land and buildings was £1,993,330, and in machinery and plant £1,612,141, showing an increase, since April, 1878, of £231,636 in the one case and £322,763 in the other. There can be little doubt that the increase from 1881 to the present time has at least been equal to that between 1878 and 1881.

As will be seen when the imports come to be considered, the local industries are remodelling the trade of the colony. On every side there are busy producers with brain and hand, capital and machinery; and that it should be possible to collect together such wonderfully-varied industrial exhibits as those in the Wellington Exhibition of 1885 testifies to the industrial progress of the colony. Stimulated by what has been done, New Zealand determines to do more; her success as a producer and manufacturer in a few things is leading her to direct her energies to many. Proceeding steadily upon the lines of policy already indicated, her industrial future is bright and hopeful, and within measurable distance she may contain within herself a manufacturing population without poverty, and natural wealth without glaring inequalities of distribution. She must be wary

and watchful, and on the alert to seize ideas of improvement in existing industries as well as schemes for promoting new ones. It is within the scope of this essay to consider some of the ways in which this can be done, and they will receive attention presently.

Part III.

EQUALIZING IMPORTS AND EXPORTS.

Although in nearly every civilized country—the remarkable exceptions being America and Germany, great Protectionist countries, where the exports exceed the imports in the one case by twenty millions a year and in the other by four millions—the imports exceed the exports, yet the proportion of excess is but small in progressive countries established upon sound fiscal principles. One would expect to find that in the colonies, as industries develop and production increases, the imports and exports would gradually become equalized, more especially if the conditions and policy prevail which have already been indicated. Accordingly it will be found that in the Australasian Colonies the imports and exports have of late years approximated very nearly to one another. Taking the mean of ten years, from 1873 to 1882, the imports exceeded the exports—in Victoria by £1 11s. 6d. per head of the population; in New South Wales by 18s. 10d.; in South Australia by 3d.; and in Tasmania by 6s. 9d. In Queensland the exports exceeded the imports by 16s. 5d. per head, and in Western Australia by £1 18s. 6d. Taking the above period of ten years, the imports of New Zealand exceeded the exports by £4 3s.—a proportion far in excess of that in any other colony. In 1882, the last of the ten years in question, the excess was £3 16s. 8d. But during the last two years there has been a marked change, and imports and exports are becoming as equalized as in the other colonics, the excess of imports over exports being £1 10s. per head in 1883, and only 18s. 9d. in 1884. Making full allowance for other causes, it is still evident that the growth of New Zealand industries has left its mark on her commercial returns.

Part IV.

Imports and Industries.

The value of the articles imported into New Zealand during the year 1884 was £7,663,888, being about 4 per cent, less than those imported during the previous year, when the total was £7,974,038.

For the convenience of this essay the articles imported may be divided into three classes:

In Class A (*vide* Table No. 1) will be found goods the manufacture or production of which is already a settled industry in New Zealand.

In Class B (*vide* Table No. 2) will be found goods the manufacture or production of which is not yet fully established in New Zealand, or, though possible and desirable to be established, has not yet been initiated.

In Class C will be placed all other articles imported into the colony, including those, which are too trifling and unimportant to consider; those which could not possibly be manufactured or produced in the colony; and those which, though possible to be manufactured or produced in the colony, are required by custom or fashion to be imported into it.

It is obviously difficult to draw a sharp dividing line between these classes, but it is believed that it has been fairly attempted in the tables annexed to this essay. Fashion and custom regulate the place of production and manufacture in some cases even more than the materials of which goods are made or the mode in which they are manufactured. This would alone render the task of classifying the imports difficult and uncertain; but, so far as can be ascertained with anything like accuracy, goods regulated solely or almost entirely by the caprice of custom or fashion have been relegated to Class C.

The progress which has been made in manufactures and in opening up the industrial resources of the colony can be readily-seen from a study of the first class of imports. The total of that class was—in 1883, £1,776,765, and in 1884, £1,526,312. Although the population of the colony, including Maoris, increased from 584,974 to 608,401, or about 4 per cent., the imports in Class A decreased by £250,453, or about 14 per cent. The decrease was very marked in some instances, even after allowing for diminished consumption through financial depression, for the disuse of particular kinds of goods, and for over-importation in the previous year.

Agricultural implements decreased from £47,432 to £16,412, or 65 per cent.; wearing apparel, from £263,849 to £197,789, or 25 per cent.; boots and shoes, from £168,383 to £143,810, or 14½ per cent.; carpets, from £41,267 to £28,376, or 31 per cent.; cordage, from 16,615 to £14,236, or 14 per cent.; earthenware, from £42,396 to £24,378, or 41 per cent.; furniture, and upholstery, from £65,571 to £48,079, or 27 per cent.; hardware and ironmongery, from £245,560 to 177,910, or 29 per cent.; jams and jellies, from £18,759 to

£10,552, or 43½ per cent.; linseed oil, from £20,436 to £17,350, or 14½ per cent.; picture frames and mouldings, from £3,779 to £3,243, or 14 per cent.; saddlery, from £43,871 to £32,204, or 26 per cent.; sulphuric acid, from £363 to £157, or 57percent.; tinware, from £6,117 to £4,932, or 19 per cent.; tobacco, from £81,705 to £63,851, or 22 per cent.; cigars, from £25,809 to £23,119, or 11 per cent.; twine (not binding, but common), from £9,625 to £7,974, or 17 per cent.; vegetables, from £6,865 to £5,601, or 18 per cent.; woollens, from £100,222 to £75,151, or 25 per cent.; and blankets, from £29,702 to £25,370, or 15 per cent.

Even after making liberal allowance for the other operating causes already alluded to, and especially for the over-importation of the year 1883, it still remains an unquestionable fact that a vastly greater proportion of the articles consumed in New Zealand was manufactured or produced by the people of the colony in 1884 than in 1883.

Had manufactures and the development of industrial resources remained at a standstill during the past year the imports should have kept pace with the increase of the population. But, as already remarked, the value of the imports in Class A, instead of being 4 per cent, greater in 1884 than in 1883, was actually 14 per cent. less. A fact like this is worth a volume of theories, and points unmistakably to the progress the colony is making, to the wisdom of the steps taken in the past to quicken its manufactures and industries, and to the desirability of putting forth renewed and more vigorous efforts to quicken and encourage them in the future.

In the case of some articles of common consumption included in Class A the result is not so encouraging.

There has been an increased importation of candles to the amount of 65 per cent.; carriages, 36 per cent; coals, 23 per cent.; flour, 62 per cent.; leather, 15 per cent.; pickles, 18 per cent.; railway carriages, 1,050 per cent.; and common soap, 120 per cent.

With the exception, perhaps, of candles, an industry which deserves the protective fostering of the State to a larger extent than it has hitherto received, there is nothing calling for anxiety in any of these articles.

With regard to candles, it is the opinion of the largest firm of New Zealand makers that increased duty on the imported article would cause a larger quantity of the raw material to be used up, and employment to be found for a greater number of hands.

The further opening-up of the colony by trunk railways, which cannot long be delayed, should increase the consumption of New Zealand coal by bringing it to the consumers' doors, and should render certain districts less dependent on a foreign supply.

Carriages are very much governed by fashion, and the date when the colonial article will supersede the Home import must necessarily be remote, though marked progress has been made in this industry in New Zealand.

The complicated laws which govern the distribution of food—laws which are intimately bound up with the low prices of agricultural produce—present the singular anomaly of a grain-producing colony increasing its imports of flour. So long, however, as a loaf made of New Zealand flour can be sold cheaper in London than in the colony itself, we cease to wonder at, though we deplore, the increased importation of flour. With better home markets for the New Zealand farmer may come a more healthy condition of the trade in flour, and better times for the consumer.

The increased import of leather is an unsatisfactory fact, indicating as it does that, however excellent the tanned article produced in the colony may be, the tide of capital has not yet flowed into this most important industry. There are signs, however, that tanning extract from native woods, especially in the Pelorus Sounds, will become an article of commerce: and that bark-crushing, for which a factory has recently been started at Nelson, will take its place among New Zealand industries.

With regard to railway carriages, the State can directly aid in developing the industry by offering to colonial workmen contracts for building carriages for the railways upon favourable conditions. There is a simplicity and saving of trouble connected with importing railway plant of all kinds, which is refreshing to the official mind; but questions of policy as well as trade—of vivifying the labour market as well as economy in national expenditure—are involved in this matter, and cannot be overlooked in a country which is neither wholly free-trade nor wholly protectionist in its dealings with its own people and the outer world. Both with locomotives and carriages the Public Works Department would do well to liberally encourage colonial industry and the use of colonial material.

The increase in the importation of common soap is of no importance. But a small and fluctuating quantity is imported in any year, the New Zealand article having triumphed over its European and Australian rivals, and practically driven them from the field. With judicious State encouragement, probably in the form of increased import duties, the importation of candles would soon become as insignificant as that of soap; the price paid by the consumer would practically be undisturbed; labour would be employed and capital invested; and the whole colony would receive the benefit in a prosperous people and an elastic revenue.

The increase in the importation of pickles is not in itself a matter of much importance, except for its apparent singularity. One would have supposed that, of all articles of common consumption, pickles would

have been manufactured in the colony. It is possible, however, that, with all the advantages of cheap and abundant raw material, there are certain trade secrets and peculiarities of fashion and custom connected with pickles which colonial manufacturers cannot at present contend against, however excellent the article which they have undoubtedly produced.

Upon the whole retrospect of the imports in Class A, comprising most of the articles of general colonial consumption, there is no reason to alter the note of encouragement and hope which in this essay has already been sounded.

Next has to be considered Class B, which includes articles the manufacture or production of which is not yet a fully established industry, or, though possible or desirable to be established, has not yet been initiated. It will not be possible within this essay to consider how the industry in all these articles can best be developed; but the principal articles will be dealt with at a later stage. Included in this class are sugar, iron, printing paper, silk, and olives, the production of which in this colony, as a commercial transaction, is so remote that a practical essay ought to devote little attention to them. Reference will, however, be made to them further on. Meantime it is well to point out that, while the total of the articles in Class B shows an increase (*vide* Table No. 2) of 6 per cent, over the previous year, there was actually a falling-off in the imports in this class, excluding sugar, iron, printing paper, silk, and olives, of H per cent. It may be laid down as an established fact that the importation of some of the articles in Class B has received a check from the manufacture of similar articles in the colony, though, from various causes, that manufacture makes little progress. Following on the lines laid down earlier in this essay it will be necessary to show how such industries can receive healthy stimulation.

Part V.

WHAT CAN BE DONE IN THE FUTURE.

Reference has already been made to the following industries in the course of this essay, and nothing further need be said about them: Agricultural implements, bacon and hams, boots and shoes, butter and cheese, candles, carriages, carpets, coal, flour, frozen meat, hardware, leather, pickles, railway carriages, saddlery, soap, tanning extract, and woollens.

It remains to consider certain other prominent industries in detail, with a view to show what, if anything, can be done to foster them in the future.

ACIDS.

Amongst the acids imported into New Zealand for manufacturing and other purposes tartaric acid—of which no less than 114,259lb., valued at £9,370, were imported during 1884—heads the list. The wine-making industry is not yet in a sufficiently advanced stage to enable this acid to be produced in payable quantities; but machinery should be imported, and steps taken to manufacture it contemporaneously with the increase in vineyards and wine-presses. The Government might offer a bonus for the production of the first 50 tons, in the same way as the manufacture of sulphuric acid was judiciously and successfully fostered. The effect, in case of sulphuric acid was very marked last year, when the imported article decreased from 24,124lb. to 10,772lb.

Of other acids, it is probable that citric acid, should the culture of lemons and citrons flourish in the colony, can be successfully extracted in New Zealand, instead of being imported.

BONEDUST.

It seems almost inconceivable that last year 3,518 tons of bonedust, valued at £23,057, should have been imported into the colony for manure, when the unmanufactured product exists here already in such great quantities. The establishment of bonedust mills in all the districts of the colony, on the same principle that boiling-down establishments dot the country, would not involve any great outlay of capital, and would lead to greater care and economy in the collection and storage of bones, and to a good deal of labour being employed. It would be necessary, however, to impose a moderate import duty, and to offer a Government bonus for the production of the first five hundred or one thousand tons. The demand for bonedust increased last year, judging from the imports, by 30 per cent., and the increase is likely to continue.

BRUSHWARE AND BROOMS.

Something has been done, but not very much, in the colonial manufacture of brushware and brooms. The import is still very large, reaching last year the value of £9,140. The division of labour has been so greatly

perfected in this trade, and every branch of it has become so technically and strictly separate, that the State could best aid in promoting the industry at first by obtaining and publishing full information with regard to the trade in all its branches, and by offering a moderate bonus for the first large quantity of brushes or brooms, whether of hair or bristle, manufactured within the colony. In Victoria there were last year ten brush manufactories, employing 162 hands, and having £19,145 sunk in machinery, plant, land, and buildings.

CEMENT.

Notwithstanding the continued production of cement—natural, such as the Mahurangi hydraulic lime, and artificial, in imitation of Portland cement—the importation into the colony is immense and increasing. Last year it reached 100,761 barrels, valued at £62,075, as against 74,997 barrels, valued at £52,902, in the previous year. Concrete is fast becoming a favourite building and paving material, and in large towns seems destined to outstrip both brick and stone in supplanting wood for public edifices, and even for dwelling-houses. It is the opinion of those engaged in cement and lime-making in the colony that, as the prejudice in favour of a foreign article over a home article becomes broken down, and as skilled labour is to a greater extent employed in the manufacture, so as to render the strength of the New Zealand article more regular and certain, and not so liable to be affected by atmospheric conditions, there will be less and less need for fostering or protection to the industry. The great desideratum is that the cement should be capable of use without slacking, and without swelling in the setting. No bonus is necessary, but the present import duty should be maintained; and the Public Works Department and local governing bodies should, where practicable, allow New Zealand cement and hydraulic lime to be used, and in some cases should encourage their use in preference to imported Portland cement. That this industry is capable of great things may be inferred from what has been done by Messrs. Wilson, the proprietors of the Mahurangi hydraulic-lime works. They commenced seven years ago to produce this natural cement, and in the first year only 7,000 bushels were sold. In the second year the amount increased to 23,000; and at the present time the sales are between 80,000 and 90,000 bushels a year, a quantity equal to 30,000 bushels of cement.

CHINA AND PORCELAIN WARE.

The difficulties which attend the manufacture of china in the colony are much of the same nature as those referred to in the case of earthenware. It is certain that, although it is quite possible to produce excellent china in the colony, the industry could not be successful at the present time without import duties of a protective character. So strong would be the fashionable prejudice in favour of English-made china for a long time to come that, unless New Zealand-made goods could be offered to the public cheaper than the imported article, the industry would barely struggle into existence. In the opinion of a high practical authority, the time has not yet come for the manufacture of china; certainly not till the present depression and glutted market have passed away. Elaborate and costly machinery would have to be imported from England, together with skilled hands, such as printers, engravers, burnishers, &c. Particular kinds of flint and stone would have to be imported from England, and would have to be prepared; and a similar and equally expensive process would have to be applied to the New Zealand clay. It is doubtful, therefore, whether capital, even with the assistance of State protection, could make out any return out of the china industry. The freight question has been referred to under the head of "Earthenware;" and the difficulty is intensified by the fact that the freight out from Home is cheaper on china goods—which are, as a rule, smaller—than upon the common earthenware. New Zealand china would be too heavily handicapped against its imported rival.

DRUGS.

The importation of drugs is very large, 4,525 packages, valued at £35,567, having been brought in last year, an amount very slightly in excess of that of the previous year. Of these drugs a large number are tinctures and other alcoholic preparations, which could be made up in the colony; but the present system of levying duties appears to hamper the trade and stand in the way of this being done. The ease is best stated in the words of a pharmaceutical chemist of long experience both in England and New Zealand. He says, "The English manufacturer is allowed to compound and distil these preparations from duty-free spirit in bond; in addition to which large quantities of similar compounds of German make, but of doubtful reputation, are imported, these latter having the recommendation of cheapness to those who are careless of quality. Colonial manufacturers are absolutely prohibited making similar compounds, as a heavy Customs duty, amounting to about £1 1s. per gallon on rectified spirit, must be paid at the outset. This completely puts us out of the pale of competition, and makes the supply of necessary drugs very much of a monopoly in the hands of a little knot of importers. The remedy is: Allow the manufacture of alcoholic tinctures, distilled spirits, and preparations in which alcohol is

an important factor to be made in the colony with duty-free spirit in bond; these, when removed from bond, to be charged with the ordinary 10 per cent, *ad valorem* duty. The Government could be no loser; the public would gain by the exclusion of inferior drugs; large sums in freight would be avoided; and the qualified colonial manufacturing chemist would stand a show in the competition."

EARTHENWARE.

Although this industry has made great strides in New Zealand—and there are few large cities which do not possess earthenware and pottery works—and although the industry has apparently checked the importation from other countries and given employment to a large number of hands, it is still beset with difficulties. The success is, in fact, chiefly at present in the coarser kinds of earthenware; and it is much to be desired that the finer kinds of delf should be manufactured in the colony. The earthenware makers all give the same reasons for the languishing state of the industry. They ask that the cost of transit of goods in the colony by rail should be reduced; that an extra duty should be placed on imported delf; that facilities should be offered by the Government to induce skilled labourers to come out to the colony; and that the Government should offer a bonus on the first five hundred pounds' worth of goods turned out—say, for example, willow-pattern plates and equally common cups and saucers. Delf of every description, and equal to any imported article, was made at the Milton Pottery Works, Otago; but, from various causes, among which were, undeniably, the expense of getting materials on the ground, and the cost of carriage of goods after they were made, the company failed. The works are now in private hands, but appear to languish. The bad state of the market at present, and the great over-importation of goods, has produced a glut which it will take a long time to work off, and which tells against the New Zealand industry. It is stated, however, that if the railway freights were reduced things would go ahead, by enabling works to be carried on close to good clay, by allowing the coal to be procured at a reduced price, and by enabling the manufactured goods to be sent to districts far remote from the works. At present the market is limited to the close vicinity of the manufactory through high freights. The limited supply of skilled labour is also a drawback. Potters have to be trained up from boyhood, as it requires great finish of hand and eye. There are few potters in the colony, and all of them came from the Home country; while it is said that it takes about three years for an apprentice to become of much use. The division of labour, although necessary for the production of good pottery, has thrown upon the New Zealand manufacturer a heavy burden. A man may be very good at his own branch of the trade and of no use in any other; so that a full and varied complement of skilled artisans has to be procured. It is, of course, a matter of great expense and difficulty to fill the places of those men in the event of their leaving their employment. Excluding delf, there are few kinds of earthenware which are not produced easily and successfully in the colony. It needed merely a glance round the Wellington Exhibition to discover that. The works of Messrs. Austin, Kirk, and Co., of Christchurch, may be taken as a passing instance. They are manufacturers of crocks, jars, basins, bowls, bottles, teapots, jugs, filters, pie-dishes, spittoons, and many other kinds of domestic, useful, and ornamental pottery and earthenware. But even this firm, with all their extensive business, have discovered that, by reason of the heavy freights, they are too heavily handicapped against imported goods outside of their own provincial district. With a reduction of railway and water charges, and with an extra duty on imported delf, there is little doubt that several makers of earthenware would begin to produce the finer kinds of pottery, such as plates, cups, and saucers.

Before leaving the subject of earthenware the suggestion may be made that many of the commoner varieties of clay tobacco-pipes, notably the long "churchwarden," might be made in the colony. The pipeclay is found in many places, and the idea is worthy of consideration. A good many hands are employed in Kent and other parts of England in this industry, and the establishments are not always on a large scale. There ought to be no difficulty in making a beginning in New Zealand.

FISH (CURED AND TINNED).

The valuable information given by Mr. J. Mackenzie and Messrs. Thomson Brothers, of Port Chalmers, Mr. James Rutland, of Picton, and Dr. Hector, which is contained in the Parliamentary Paper H.—15, must lead every one to regret that greater progress has not been made in the fish curing and canning industry. Two facts are beyond question: that our New Zealand seas teem with fish of the most suitable kinds, easily procurable; and that an excellent cured and canned article has already been produced, quite equal in cheapness, quality, and flavour to any importation. To encourage this industry the Government, deeming it of the first importance that a valuable food supply so close to our doors should not be neglected, have a bonus now under offer, which fish-curiers in several parts of the colony are most anxious to compete for. Dr. Hector's opinion (*Vide* his memorandum in Parliamentary Paper H.—15a) is that "the natural wealth of the New Zealand fisheries is as yet almost undeveloped, and the efforts in this direction have been very crude, and entered on without the least

regard to the knowledge of the subject which is necessary. The establishment of small fishing communities in connection with fish-curing factories is what is required. . . . The most steady and largest outlet for the fisheries industry would be in canning fish for export on a large scale." But, before Dr. Hector's ideas can be realized, and the industry be established on a large scale in the great centres, the experiment of preserving and canning must be made by persons practically acquainted with it, and at places as near as possible to the fishing grounds. Suitable buildings, plant, boats, and nets will be needed even for the smallest experiment; and, to begin with, it is far more likely that the experiment will be successful, conducted by a practical fisherman, even if he has to borrow the needful capital, than in a large factory run by capitalists at a distance from the waters where the fish are obtained. The State would therefore act wisely in giving assistance in other ways than that of offering a bonus, to enable the industry to grow up in such a place, for instance, as Queen Charlotte Sound. Let but one good fishing establishment be successfully started in such a locality, and there would be plenty of capital forthcoming to start others. At present a person engaged in the industry on a small scale is terribly hampered by the necessity of paying high interest on advances, and selling his fish through the middleman with his enormous profits. The owner of some fish-curing works, writing to the author of this essay, says, "During this season I have cured 3,000 cases of herrings at a selling price of 10s. per case; but, being under certain conditions for raising money to put up additional buildings to can that quantity, I am forced to accept an all-round price of 7s. per case. Thus, you will see, it costs me 4s. to get them ready for market, 1s. for case, 2s. for profit; while the merchant gets 3s. to 4s. per case for trading. This is where the rub comes in." The same person is sanguine of the success of the industry, and, as a proof of the natural wealth of fish food, mentions that he had seen, during the past season, a patch of herrings two miles long by one mile wide. The State could best help the industry, in a case such as this, by advancing money, at a low rate of interest, upon security of his freehold premises and plant—in the same way as it has frequently been proposed to help the settler to make improvements in his land. It is no wonder that in the past the bonus offered for cured fish was suffered to lapse. It could not, as Dr. Hector shows, be taken up by capital, without special knowledge of the industry; and special knowledge cannot at present, unless the Government steps in to help, obtain the aid of capital except upon oppressive terms.

FRUIT-PRESERVING.—JAMS AND JELLIES.

These industries are becoming firmly established in the colony, though enormous quantities of bottled and preserved fruit, and of jams and jellies, are still imported. There is no kind of produce for which New Zealand is naturally better fitted than fruit, and the success of jam factories in some parts of the colony, and the high quality of the preserved fruits exhibited in the Wellington Exhibition, prove that both capital and skill have been brought to bear. It is not altogether satisfactory to reflect that in this colony, largely composed of small fruitgrowing settlers, who should easily find a market for their produce, no less than 440,992lb. of jam were imported last year, the value being set down at £10,552. There is not a penny of this large sum that need have been sent out of the colony for food of this nature. Two things stand in the way of the industry. Insect blights on the fruit trees have increased to such an extent that the loss to fruit-growers, and especially to small settlers in Nelson and Marlborough, must be reckoned by thousands of pounds. Fruit-growers are also unfairly handicapped by boiled fruit-pulp coming into the colony free of duty. To meet the latter difficulty the same duty should be imposed as that upon bottled fruits; and to meet the former plague the Government should cause to be circulated all over the colony, in large numbers, copies of the valuable report of the Codlin Moth Committee last session, and of Professor Kirk's equally valuable report upon insect blights. The outlay which this circulation would involve might be considered as a judicious investment in the public interest, especially if done at the right time of the year.

GLASS.

The impediments presented by high freights, over-importation of foreign goods, and scarcity of skilled labour apply to the glass-works industry equally with the manufacture of delf and china. The New Zealand glassworks are very few in number, and have been confined almost entirely hitherto to the manufacture of lamp-glasses and chimneys. Now, however, works are in course of construction at Kaiapoi for the manufacture of bottles, tumblers, medicine and soda-water bottles, besides lamp-glasses and other useful and marketable articles which should find a ready sale in the colony. Experimental trials have resulted in the successful production of articles of all the kinds enumerated. At Kaiapoi and at other places in the colony the requisite glass sands are found in abundance, which, when subjected, to various chemical treatments, ought to produce not only inferior glass, but also the finer articles turned out by the trade in England. At Auckland there has been for some time past a small factory in existence, in which little or no sand was used, but old glass was melted down and blown. It is hoped that at Kaiapoi, before very long, there will be proper furnaces and melting pots or

tanks, with skilled men possessing full knowledge of chemical appliances, and with practical experience of "mixing" and "fluxing." Then the experiment of manufacturing glass articles as a commercial speculation may be tried; and, when the works are in full swing, and proof has been given that the industry is adapted to the colony, the Government may be justified in coming to its assistance by offering a bonus.

At the same time, much must not be hoped from the industry for a long time to come. It would appear that even in Victoria the industry has not fulfilled expectations, or kept pace with the population, inasmuch as last year there were only five works, as against nine existing in 1881. Those five works gave employment to 187 men, and had £21,250 embarked in the machinery, plant, land, and buildings. Their out-put appeared to be about one-third of the imported glass and glassware. The industry would be a valuable one could it be successfully carried on in New Zealand, and the remarks of Dr. Hector upon the subject (Parliamentary Paper H.—15a.) are worthy of notice. He says, "The enormous importation of glassware and glass bottles, and the consequent abundant supply of broken glass for re-smelting, has made it almost unnecessary to make the glass from the raw material; but this abounds, of all qualities. The industry is worth the attention of any persons skilled in the trade that desire a fresh outlet, and could bring with them the necessary workmen."

IRONWORKS.

All attempts to successfully establish ironworks have at present failed, and it is to be regretted that the skill and attention displayed upon such a tempting, though impracticable, industry have not been diverted into more useful channels. Bonuses have been offered, and allowed to lapse; and, as there is only one iron furnace at work in the colony, it is not probable that the bonuses still under offer for pig-iron and wrought-iron blooms—both of which expire on the 31st December, 1886—will be taken up. Hitherto, in the Old World, the near proximity to each other of iron ore and coal seams has been regarded as essential to the success of ironworks, and as the secret of the supremacy which coal and iron countries always attain. Unfortunately, the ironsand on the west coast of the North Island and at the Manukau, which does not possess the advantage of coal as a near neighbour, has been the only field in which experimental ironworks have as yet been ventured upon. Failure has attended all of them. As pointed out in Dr. Hector's report (Parliamentary Paper H.—15a.), one of the most favourable localities for ironworks yet discovered is at Collingwood, in the Nelson District, where coal seams and iron ore have been found almost side by side. Here, if anywhere, the experiment of ironworks to obtain the bonuses ought to have been practically tested—especially as the yield of the coalmine is easy and abundant—yet nothing has been done.

MATCHES.

The enormous quantity of matches imported last year—8,301 packages, valued at £24,635—suggests the idea that something might be done to promote their manufacture within the colony. In England, Sweden, and Germany the industry gives employment to thousands of young and old, though—in London, at any rate—under conditions of low wages and factory life which it might not be possible or desirable to imitate in the colony. The industry is, however, worthy of consideration, especially as sulphur, the groundwork of non-poisonous matches, exists in great quantities; and phosphorus, the groundwork of the poisonous wax matches, could be extracted in sufficient quantities from the bones which form such an extensive article of commerce in a pastoral country. The glue which forms part of matches of all kinds already comes in free of duty, as also do the chemicals used in the manufacture. If, as has been contemplated, the sale of poisonous matches be prohibited, there might, at any rate, be a fair chance of establishing the wood safety-match industry, provided the present import duty were-maintained.

OLIVES.

With regard to olives, there can be no doubt that, although of slow growth, the plant can be successfully cultivated in the colony. The production of olive oil is a highly important matter, and likely to be more so as woollen factories increase and the demand for the oil, which is used in that manufacture, enlarges. Dr. Hector recommends a systematic importation of olive truncheons, instead of the plant being grown here from eyes and buds. Last year the olive oil imported, free of duty, amounted to 29,077 gallons, valued at £5,467. As the plant matures it would be well to offer a bonus for the first large quantity of olive oil produced in the colony, and to impose the same import duty as exists in Victoria—6d. per gallon.

PRINTING PAPER.

In this case a Government bonus of £500 for the first fifty tons will lapse if not claimed before the 31st

December, 1886. Two previous bonuses, in 1875 and 1883, lapsed without any claimants. Last year 39,073cwt. of printing paper was imported, to the value of £67,840. No import duty is levied, and it is not probable that the Legislature—which would regard a duty in this case as a "tax upon knowledge"—could be induced to include it in the dutiable goods of the tariff. It is not easy to see how, even supposing every newspaper in the colony undertook to buy all their paper from a New Zealand mill for five years—a contingency not likely to happen—it would pay to establish such a mill in the colony. In order to compete in cheapness and quality with the English, Scotch, and foreign houses it is said that the buildings and plant of a printing-paper mill in New Zealand would cost £50,000. Nor could this colony depend upon customers in the Australian Colonies, where paper is imported from the Home country free of duty, and where one mill already exists, though with a limited output. Printing paper has never been produced in New Zealand except in one instance—experimentally and unsuccessfully—at Matura. It is an industry which it were vain at present to hope to establish.

SALT.

The import of salt in 1884 amounted to 5,470 tons, valued at £14,990, an increase upon the previous year of 935 tons and £2,601 respectively. There is no reason why, if salt can be produced in South Australia, where there are no salt mines, the same industry cannot be established in New Zealand. One maker, at Lake Fowler, Yorketown, has established works the out-put from which is twenty-five tons per week, the manufacture being by the process of evaporating sea-water. There are several methods by which this process is carried out; and, without entering into details, it is sufficient to say that no great capital would be required to start the industry. Both in South Australia and Victoria there is an import duty of 20 per cent, upon salt, and it might be desirable to impose a duty upon it in New Zealand, instead of allowing it to come in free, as at present. The bulk of the salt imported comes from Great Britain, though some has been imported from the South Australian works already referred to; and, considering how greatly the freight must add to the price, there is good reason for thinking that this industry could be established in New Zealand without increasing the price paid by the consumer. It is interesting to note that in Victoria last year there were seven salt-works, employing forty-two hands, with £7,406 invested in machinery, plant, land, and buildings.

SILK.

The bonuses offered in 1881 and 1882 to encourage the production of silk, in cocoons or eggs, were never taken up. The importation of silk decreased last year by 33 per cent., attributable mainly to its growing disuse as an article of apparel. The silk industry is not likely to be established, even feebly, in this colony, unless by a scheme of special immigrants born and bred to the business, and imported specially to introduce it here. It might be desirable for the Government to encourage this idea by offering facilities for acquiring land, and by importing and cultivating the proper variety of mulberry.

STARCH, MAIZENA, AND CORNFLOUR.

The exceedingly low price at which German starch can be imported into this colony must, for a very long time to come, prevent the manufacture being taken up to any extent in New Zealand, however abundant the raw material: So long as the German article can be imported at 2³/₄d. per pound, there is no available labour in the colony which would enable our manufacturers to compete. It is to be feared, therefore, that the same unsuccessful result will attend the bonus now under offer as attended those offered and never taken up in 1881, 1882, and 1883. The case is different with cornflour and semolina, and no doubt could be so, if the experiment were tried, with maizena. The large and increasing quantities of these preparations of meal which are imported open up a field for colonial enterprise, and some superior specimens were to be seen in the Wellington Exhibition. Both cornflour and semolina are being produced better and cheaper than the imported article and the unreasonable prejudice in favour of the imported article is being overcome. Government would be justified in fostering these industries by increasing the duty.

STRAW HATS.

Attention has been called in the Legislature to the large quantity of straw hats imported annually. Last year 566 packages, valued at £11,365, came into the colony, notwithstanding the fact that straw, of the same nature as and of equal goodness to the Tuscan, Leghorn, or Dunstable kinds, can be easily enough produced in New Zealand. Those who have seen the working of this important, pleasing, and healthful industry in the Counties of Bedford, Buckingham, and Herts, and have seen the old people and children plaiting their straw at the cottage doors, afterwards carrying their goods to the "plait" market in the nearest town, cannot but wonder that such an

industry has never occurred to the minds of the agricultural, classes in New Zealand. Straw hat and bonnet factories, such as exist in Luton, Dunstable, and St. Albans would follow, and the manufacturer, with abundant raw material, and with sufficient female or boy labour, would soon hold his own with the imported article. The Government could aid the industry, not only by maintaining the present import duty, but by offering a bonus for the first five hundred bonnets or hats, or first thousand yards of straw plait.

SUGAR.

The production of sugar in New Zealand has already been referred to as too remote a contingency, considered as a commercial speculation, to be treated practically within this essay. Five Government bonuses, offered between November, 1872, and May, 1881, lapsed; and for only one of them were there any applicants at all. Sorghum has been successfully grown as an experiment; and sugar-refining works exist at Auckland, from which an excellent article is turned out. But the colony is still a great way from sugar-producing, though the results, if any, of "The Beetroot Sugar Act, 1884," will be awaited with much interest. Under that Act a bonus of ½d. in the pound is offered on 1,000 tons; but there is at present little reason to suppose it will be taken up. It is believed by many that beet-root sugar could not be profitably manufactured in New Zealand without the distillation of spirit from the refuse were permitted to attach to it. This the colony is not in the least degree likely to permit. Accounts of the beet-root sugar industry, even where carried on in Europe under the most favourable conditions, and with the cheapest labour, have not been encouraging of late.

VARNISH.

So largely does kauri-gum enter into the manufacture of varnish that it is most desirable that an effort should be made to produce within the colony an article which can compete with that which is now so largely imported. Last year the imported varnish was valued at £12,419—a very large sum to send out of the colony for an article that, without much difficulty, could be made within it. In this case, since encouragement would be given to the kauri-gum industry as well as to establishing a new manufacture, the Government would be justified in increasing the import duty, and in offering a bonus for the first five thousand gallons of New Zealand varnish. In Victoria the industry appears to be established. Last year there were three paint-varnish manufactories, employing twenty-two hands, and with, machinery, plant, land, and buildings valued at £16,229.

VINEGAR.

The great extent to which vinegar is used by colonists leads to the reflection that the manufacture should be attached to every large brewery in New Zealand. Vinegar—or "alegar," as it is sometimes termed in Great Britain, when the works are attached to beer-making—has already been made in some considerable quantity by Messrs. Kempthorne, Prosser, and Co., of Duncdin; but, as 92,133 gallons were imported last year, it is evident that the fringe of the industry has scarcely been touched. In this case also a bonus might be offered, in order to encourage brewers and others in procuring the necessary machinery and labour. The duty is already sufficiently protectionist.

Part VI.

SUMMARY.

Briefly summed up, the following are the principal ways in which the industries of New Zealand can be promoted:—

- By Government bonuses being offered in certain cases, such as brushware and brooms, olive oil, vinegar, bonedust, straw hats, varnish, tartaric acid, and delf.
- By a revision of the Customs tariff in cases where a New Zealand product or manufacture can be promoted without injury to the consumer, and with fair prospect of its success. The import duties should be increased upon apparel, woollens, candles, olive oil, delf, and varnish. A duty should be imposed upon bonedust, fruit-pulp, and salt, which at present are free. It might be well, also, to assimilate the New Zealand tariff to the Victorian by imposing the following duties on articles which at present come in free, and which can, either at once or by degrees, be manufactured or produced in the colony: Cornsacks and flour-bags, 1s. per dozen; bricks (fire), £1 per 1,000; butter, 2d. per lb.; carriage materials, 25 per cent.; casks (empty), 25 per cent.; flour, 2s. per cental; glass bottles, 3d. to 6d. per dozen in some cases, and 6d. per cubic foot in others; glue, 2d. per lb.; honey, 2d. per lb.; potatoes, 10s. per ton; and provisions

(salted), 5s. per cwt.; and (preserved), 2d. per lb.

- By the Government collecting information as to fresh markets for New Zealand produce and manufactures in various parts of the world.
- By the Agent-General reporting periodically upon fluctuations and depressions in particular industries at Home, and upon the prospects of their being introduced into the colony.
- By the agent of the colony in the United States procuring exact and definite information as to how far protection has encouraged American industries, and how long such protection ought to be or have been extended to them.
- By establishing a system of technical education in the colony, and especially by the application of the fine arts to those manufactures which suffer by comparison with the imported article through want of beauty or finish.
- By sending to England, America, and the Continent of Europe a certain number of artisans yearly, the New Zealand Government defraying all expenses, in order that they may acquire special knowledge of the manufactories of older countries, and impart it to their fellow-colonists on their return.
- By endeavouring to secure amongst Government or nominated immigrants a certain proportion of artisans and workmen connected with industries which it may be desirable to introduce or necessary to develop and improve in the colony; and, in some special cases, by directly importing skilled workmen for industries in which there is a growing demand for the finer products.
- By the Government using, as far as possible and proper, New Zealand products instead of imported articles for the public works of the colony.
- By a more equitable system of freights upon the railway-lines.
- By Government advances, upon security of real or personal property, and at a low rate of interest, to persons engaged in developing industries of colonial importance, such as fish-preserving, and especially in cases where a bonus has been offered to stimulate production.
- By the community at large recognizing the importance of encouraging colonial industries, and even undergoing slight temporary sacrifices or inconveniences in order to establish a prosperous manufacturing population in their midst. By the colonists of New Zealand wearing New-Zealand-made clothing, filling their houses with New-Zealand-made furniture, and using New Zealand food and domestic requisites. By rich and poor, old and young combining, in the true spirit of patriotism, to make it fashionable to use the products of their country, and unfashionable to go outside of New Zealand for articles which can be manufactured within it. If he is a true lover of his country who makes two blades of grass to grow where one grew before, then that colonist is none the less a patriot who helps to give employment to two of his fellow-settlers where only one was employed already. If the colonists of New Zealand are actuated by this spirit, the stigma (which has been sometimes cast) that the imported article is cheaper and better than the New Zealand, and that the inhabitants of the "Britain of the South" cannot produce the necessaries and comforts of life, and would not use them if they could produce them, would be speedily removed.

NOTE.

The author of this essay has to acknowledge his obligations to a large number of correspondents in various parts of the colony, who have very kindly and promptly furnished him with information upon colonial industries. For the statistics he is indebted to the Registrar-General's Statistics of the Colony of New Zealand; to the Import, Export, and Shipping Returns for 1883 and 1884; to other Parliamentary papers relating to the development of colonial industries; and to that invaluable publication, Hayter's Victorian Year-Book.

The Present Condition and Future Prospects of the Industrial Resources of New Zealand, and the Best Means of Fostering their Development.

An Essay; by William Reeve Haselden.
"Press onward."

Introduction.

THE hope of reward sweetens labour, but the material reward offered for the successful essay will not be so valuable as the benefit that must result to all those who make themselves sufficiently acquainted with the subject in hand to enable them to write reasonably and at length upon it. I launch this essay believing that the best reward will be found in reducing into a comprehensive form the knowledge acquired in preparing for it. There is no need to detail the various sources of information which have been drawn from in order to describe the industries now existent and which may be expected to shortly exist in these wondrous islands of the Southern Seas; which, in one generation, have risen from almost primeval savagedom to power and civilization. The power of development is the strongest power a people or nation can possess, and the potentialities of New Zealand in this respect is the theme on which I write.

A Retrospect.

This is unavoidable. We must briefly look back over the lines traversed already in order to realize our position at the present day, and mark the directions in which the surest progress can be made. Within the memory of men who are still able to work, New Zealand produced and exported whalebone, timber, oil, kauri-gum, flax, greenstone, preserved human heads, and a very small quantity of gold. This was the catalogue of exports: the value of the total was insignificant, and the permanence of the supply was considered as precarious for the whalebone and oil steadily decreased in quantity; the timber was irregularly prepared; the true use and value of the kauri-gum had not been recognized; the flax involved hand-preparation, which prohibited a large quantity being obtained; while the greenstone and heads were but "curios" of savage lands wherewith to amuse the people at Home. This was our position less than fifty years ago. Fifty years hence we may be the richest and strongest of the Australasian Colonies—truly a bold prediction! but one believed in by many cool-headed though, perhaps, sanguine men. So rapid has been our progress as a people that individuals are sometimes tempted to ask, "Is there any use in ever climbing up the climbing wave?" The colony is enriched, but are We, as individuals, any better off? Fortunately for the sake of advancing knowledge and growth, these people cannot very well help themselves in being forced forward with the mass; they have only the choice of becoming inert altogether, or of putting forth the necessary additional strain to keep pace with their fellows. Still, although the aim of our statesmen is to make the greatest happiness of the greatest number, it is possible for them to fall into the error of over-forcing—of making a perfect workshop without establishing the necessary business connection to support it—of creating an insatiable hunger for employment, which grows in proportion to the supply with which it is fed. But the surest preventive of great ill-fortune befalling us in this respect lies in the multifarious nature of our industries, and the absence of any one predominating interest among the Islands of New Zealand. As is only too well known to those who were in the colony from 1840 to 1865, our progress during that period was very slow. Wool, gold, borrowed money, and a lavish war expenditure kept us in a state of activity; but farming languished, especially in the North Island, and the people who had settled under the land-grant system were in a terribly impoverished condition. There cannot be a doubt that the enormous quantities of capital produced from the gold-mines of the colony gave it the required impetus to fairly start it upon its road to prosperity; and that without the universally-marketable commodity of gold New Zealand would still be a distant colony, of interest to the geographer and ethnologist, and, perhaps, still affording an asylum to the world-weary man; but it would not have been the great and glorious country of to-day, with its illimitable vistas of the possible opening widely before it. Deeply, then, as we are indebted to the wealth of our gold-mines, they cannot be regarded as forming our true wealth for the future; they will doubtless be a factor in making up the sum of wealth; but the true and permanent wealth will not lie in them, but in the various other industries, which in the aggregate will produce a teeming population of almost every industrial pursuit known to mankind. What those pursuits and industries are and will be, and how they may be promoted and developed, it will be our object to define.

General Observations.

From mere lack of space New Zealand can never attain to greatness from pastoral or agricultural operations alone; but from her mineral wealth, her enormous extent of seaboard compared with her area, from her magnificent harbours, her climate, and moderate fertility of soil a combination has been and is forming which justifies her boast of being the Britain of the South. She is the natural birthplace and training-school of seamen, and of seamen of the very best kind, men able to take their vessels anywhere upon the seas, and gifted with a mercantile shrewdness engendered by constant communication with traders and cultivated by habits of self-control and command of others. In the mosquito fleet of New Zealand there are hundreds of men who are the equal of the adventurous pioneers of old, and who lack but new worlds to explore to attain to equal fame with their forerunners. Allied with our seamen are our shipwrights, who have built the mosquito fleet, and are

now turning out moderately-sized steamers in every seaboard city in New Zealand, besides every description of smaller craft. Our runholders and squatters have taken up nearly every acre of Native grassed-land which will support sheep or great cattle, and must be prepared to surely, if slowly, give way to the denser population-supporting industry of agriculture, which in its turn may be pressed upon by the demand for land for more valuable purposes from a revenue-producing point of view. Our goldmines are still keeping up a good total return, while our coalfields are at last being systematically worked and appreciated, though how grievously we fail in fully utilizing them the sequel will show. On all sides factories are springing up, and from every quarter of the colony specimens are shown of skill and power of production in numberless ways, which all point to a speedy future of greatness. Still more encouraging is the trade that is being developed with other lands, and the high commercial standing of our merchants, for at the outset we must admit that our true destiny is to be factors and manufacturers for others, and that—while we might support a limited population from within, so bounteous has Nature been in the variety of her gifts to us—we can only become a populous country by becoming closely allied with other lands, and by conserving our forces to the highest possible degree. For instance, in the timber trade, at the present rate of export of baulk timber our supply will speedily become exhausted; but by working timber up in the colony and exporting it in a manufactured state it will last indefinitely, and will give a hundred times the advantage it otherwise would to us as a colony. In almost all other products the same principle applies, and it will be endeavoured to be shown that the development of our industries is best achieved by working up our natural products to the highest state of efficiency before parting with them to the merchant or consumer.

It will be convenient to divide our subjects into three main heads: First, products; second, the manufacture of products; third, the manufacture of articles for which the material must be imported; fourth, the means of extending these three to the best advantage.

Hard-and-fast rules by which to attain these ends cannot be laid down—the subject is so many-sided, there are so many conflicting interests to consider, and so many debatable political theories involved, that it would be impossible to frame a mere code which would find even moderate acceptance. The answer to the question, "How shall a young and healthy child be developed into a powerful and sagacious man?" would almost answer the question involved in our subject, yet who would lay down an iron rule for this with any hope of finding general approval. The race from which the child sprang, its environments, and its personal characteristics would all have to be considered; and so it is with our colony. But, while compelled to admit that certain and specific measures cannot be prescribed, we shall be careful to avoid abstract principles or mere theoretical or political discussion.

Taking, then, the products in the order in which they are at the present time most important, in a monetary point of view, we treat first of all of

WOOL.

Wool is the principal export of New Zealand, yet it seems to be less a subject for this essay than almost any other product.

This may seem a paradox, but the reason will shortly appear. In 1883 there were 13,384,075 sheep in the colony. The value of the wool exported in 1883 was £3,014,211, against £3,118,554 for 1882—a decrease of £104,343; yet the quantity exported in 1883 exceeded that of 1882 by 2,826,723lb., the difference in value being occasioned by the fall in price. In 1883 the weight of wool exported was 68,149,430lb., against 48,848,735lb. in 1874—an increase of 21,300,695lb. Besides these large quantities must be added 2,000,000lb. utilized per annum at the woollen manufactories; and it is in connection with these latter industries that the wool product is of the chief importance to our subject. As a mere matter of export wool provides less employment to population, in proportion to the money returns, than almost any other industry. A few shepherds tend many thousands of sheep; a migratory class of shearers perform the annual clip. With railway communication the labour of transport is reduced to a minimum; enormous areas of land are desolate of life, save sheep life; it becomes a question of mere interest on capital. And in too many cases for the true welfare of the colony the real proprietors and beneficial owners are absentee capitalists and financial institutions. In the course of a few years the richest provinces of the colony—namely, the wool-producing ones—will be the poorest from a practical population-supporting point of view, unless the changes mentioned before take place in proportion to the growth of the rest of the colony. Magnificent as some of the Canterbury runs and flocks undoubtedly are, the want of space can never enable New Zealand to compete with Australia as a wool-producer. Still, much can be done to utilize her exceptionally-favourable climate and land by careful production of superior breeds, and by making up in quality what is lacking in quantity. For many years to come the supply of wool must far exceed the quantity required for home consumption, and our growers must depend upon the world's market for their prices; and they have fortunately long since obtained the highest reputation for their

wool, and especially for articles of American manufacture, and for articles requiring bright and fast colours. The great improvement effected in breed has had a most favourable effect; and the breeding of stud rams is an important factor in the flockmaster's profits. Still, if it be true, as has already been assumed, that as population increases sheep-farming will not extend in proportion, but will rather have a tendency to lessen, and considering that the industry can only now be carried on by those who have acquired the right to the land, and have the command of the necessary capital, and that, practically, it is not an occupation of the people of New Zealand, it will be admitted that the product of wool pure and simple is not by any means the most important of the industrial resources of New Zealand. The topic involves the most important political question of the land laws; but full discussion of the point would necessarily compel the introduction of matter foreign to this essay. Still, it cannot be altogether ignored, and in treating practically of our industries we must look to the near future, when the leases at present existing in Canterbury and Otago will have expired, and the momentous question to the runholder will have to be considered, whether sheep-farming will pay on privately-bought land. We must remember that sheep-farming in New Zealand commenced with colonization, and developed rapidly; because the natural grasses afforded immediate feed, and the land was then otherwise worthless; but every day the mere surface area becomes more valuable, and will require to be utilized fully in order to make the result profitable; and with respect to sheep-farming this can only be done by the introduction of English grasses, which generally thrive admirably and repay the outlay. Land surface is becoming too valuable to allow of three or four acres to a sheep; the change must be made to three or four sheep to the acre. Labour must take the place of seigniorial rights over immense tracts of country. The necessity for cultivating grass of the best description will entirely alter the mode of sheep-farming; labourers will be multiplied tenfold; there will still be great proprietors, but they will be more than lords of sheep: they will be large employers of human labour. "The land question"—says Mr. Stout, in the debate on the Land Bill—"is the great question of the future." It is too large a question to enter into here, and we must fain leave it to be settled in the stormy arena of politics; but in the meantime let our flock-masters remember that their legitimate and best market should be at home, and that, by combining with manufacturers for the production of woollen fabrics for home consumption and for export to countries where a flourishing trade may yet be established, they will render their occupation a perpetual necessity to the colony and a perpetual source of profit to themselves and to thousands of factory hands.

I venture to quote the lines of the American poet Emerson—

*And what if trade sow cities
Like shells along the shore,
And thatch with towns the prairie broad
With railways ironed o'er;
They are but sailing foam-bells
Along Thought's causing stream,
And take their shape and sun-colour
From him that sends the dream.*

GOLD.

There are two great causes tending to make the gold product, of New Zealand a peculiarity in itself, and to distinguish it from all other products. The first is that, in the early history of all goldfields—at all events, all goldfields in these colonies—individuals are able to profitably engage in it, and that the cream of the field is gathered by men working almost alone, and with the rudest appliances, having no hope or desire to remain permanently in the country or occupation; and who seek to gather as much as possible in order to convey it to other lands. The second great cause is, that the spirit of speculation is more easily excited in this than in any other occupation; and the market price of scrip and the chances of selling at a profit are the objects of attention, rather than the actual returns from the mines themselves. The first relates almost exclusively to alluvial mining, the second to quartz mining.

What has gold-mining done for New Zealand? It has ruined thousands of people, and wasted thousands of lives in profitless toil; it has promoted a spirit of restlessness and haste to get rich—so say many. Put the evil it has done first, and then the good. It has brought to our shores the flower of the working population of Australasia and California, if not of the whole world; it has produced a wealth of currency, which has assisted our producers of kind to obtain a better market; it has peopled waste and desolate coasts, which, but for the gold, would have been judged to have been totally uninhabitable, but which will probably be the richest parts of the colony long after the gold has been practically exhausted. From Okarito to Karamea, on the west coast of

the Middle Island, there is a bleak, inhospitable coast, without a decent harbour, with hardly a hundred acres in a block of cultivatable land—a tract of country which was almost untrodden by white men twenty years ago, and which, but for the amazing richness of its gold deposits, would be still a *terra incognita*. There are thirty thousand people settled there now—less, it is true, than formerly, but a people who are now again increasing in numbers and importance—harbours have been made and are being made, coal is being worked out of these harbours, other minerals are being discovered; and, aided by the impetus acquired by gold, the whole district is acquiring an importance second to none in the colony. True it is that coal is taking the foremost place now, which gold formerly occupied; but the coal would not have been developed in this generation but for the population brought by gold. Yet there are towns in New Zealand in which people speak deprecatingly of goldfields, who declare, with the innocence of ignorance, that the colony would be better without them, who lament over the supposed wickedness and disorder which reign there, and who have never heard of "boiling down" being a godsend to sheepowners, because "boiling down" has not had to be resorted to while a goldfield was within driving or carrying distance. Otago can show the same results, and Auckland is now opening up country which would possess no attractiveness were it not for the gold.

Reference has been made to the rude appliances with which the gold-miner works at first, and to his simple mode of extracting the precious metal. The different kinds of mining may be classified in an order showing pretty well how they succeed each other in the history of each goldfield: 1. Simple stripping and washing with a cradle or small sluice-box, either on alluvial or beach. 2. Ground-sluicing with extended tail-race and water-power. 3. Cement-crushing with pulverizing mill and amalgamating tables and appliances. 4. Deep alluvial workings, employing heavy outlay for pumping gear and raising. 5. River claims. Next quartz-mining, with its expensive crushing batteries, saving and amalgamating appliances, its innumerable inventions for dividing the gold from dross and grosser metals, its high-raised hopes, and its frequent failures. It must be on a virgin field that much success can be realized by the "hatter"—the cream is soon skimmed, and the residue must be systematically worked, without waste, to insure a profit. The best-off "hatters" now are the "fly-catchers," who place as many tables or boxes as they can get registered sites for in the bed of a stream into which the tailings of miners working above have been poured, and these tailings are washed over and over again on the tables of the "fly-catchers," each washing or passing over the tables leaving some small quantity of gold in the process, and demonstrating how futile have been the attempts on the part of the previous workers to extract all the gold from them. Ground-sluicing is still carried on extensively, and will continue for many years, because only a certain quantity can be worked each year, according to the supply of water; and those who own the water command the ground: it lies idle until the man with the water-supply is ready for it.

But great work has been done by the large races constructed by Government, and by private enterprise; and ground that otherwise could not have been tested for years is being profitably worked. To the alluvial miner the best practical aid that can be given is in the form of water and roads; if he has these given him in return for the gold duty, it is not an unjust tax; but, unless it is expended on the particular industry it is raised from, it is as unjust as if sheep-farmers had a poll-tax levied on them, and no others were so inflicted. With the quartz-mining branch roads are the chief aid that can be given. So tardy, sometimes, has been the recognition of the value of a field that ten times the cost of a good road has been spent in packing on horses and parbuckling up river-beds before a chain of dray-road has been constructed; but next to this practical aid, which has been so much ignored, is the regular instruction in scientific modes of extracting gold from quartz, sand, tailings, and blanketings. Practically, the method is as rough as it was a score of years or more ago. In his recent tour Professor Black did some good work in establishing schools of mines; but it has not been followed up, and requires vigorous development, and the professors themselves want practical experience to aid their theoretical knowledge.

The monetary value of the gold exported annually is startling, though it does not come up to that of wool. In 1884 246,392oz., worth £988,953 were exported. The highest yield in any one year was in 1866, just after the Hokitika rush, when gold worth £2,844,517 was exported. What this money has done for the colony can be better imagined than described; but up to March, 1885, gold worth £41,634,507 has been sent out of New Zealand. No doubt a very high percentage of the advantage such a production might have done the colony has been lost; but still, an enormous benefit has remained: as much, probably, in the stimulus and credit it has given as in the direct form of capital stored in the colony.

It is impossible to give a practical treatise on gold-mining or on any other industry, but the practical suggestion is contained in the recommendation—roads and water for miners, and instruction and invention in order to prevent loss of gold and waste of labour; rewards for the discovery of new goldfields are now offered; and bonuses for really valuable gold-saving inventions would be of practical value, as the quantity of gold lost by the present imperfect process often represents the difference between success and failure; a thorough revision of the mining laws, which, combined with official lethargy, constantly impede the miner, harass the mining prospector, and involve all in occasional but expensive law-suits; a regular code of mining laws framed

chief feature of which is, that for the discovery of a new goldfield three miles from any workings there shall be paid, at the expiration of six months from the date of discovery, a reward of £100 per one hundred miners, up to £500 for five hundred or more miners so employed; and for the recovery of a lead in proximity to the place where a lead has been lost, and has not been worked for a period of six months, a reward equal to one-half of the above rates; and for the discovery of a payable diamond-field, lode of silver, or lode of tin, for everyone hundred miners profitably employed thereon at the expiration of six months from the date of discovery, there shall be paid a reward of €100, up to €500 for five hundred or more miners so employed.

COAL.

Here is the mighty force that is to work the greatness of our land. Without it we might struggle nobly, but we could not overcome; with it we can do all that is required to attain our ambition, if that ambition is only set upon what is the true destiny of the colony, and not upon what some may fancy it should be. The object of this essay is to show that our true destiny is to be the carriers, manufacturers, and traders of the Southern Seas; at the same time producing so large a supply of our own requirements as to command the maximum of other's capital at the minimum of our own. Without coal we cannot attain this, but Nature has been generous, and given us this all-sufficing force. The cry is not "Where is coal?" but "Where is it not?" Both Islands contain large supplies of various quality. Kaitangata and Tokomairiro have sixty square miles of area, containing 708,000,000 tons; Nightcaps, 100,000,000 tons Green Island, about the same, but this coal is non-bituminous, and cannot be classed as the article we really want. In the Buller and Grey coalfields are contained 240,000,000 tons of the best bituminous coal in the world, the Grey taking the palm for gas-producing and the Buller for steam purposes. At Kawa-kawa and Kamo there are large deposits of good steam coal. Deposits of brown coal are found throughout the colony. At Brighton, on the West Coast, the Warden's house was on a terrace, and the servant, was accustomed to hew the coal out of her private coal-mine by the scuttleful. In Charleston about the same thing occurs to this day. In the Inangahua the leading gold-mines have also coal-mines almost alongside; but it is only when a first-class coal has been found in an available position for export that the importance of the discovery at present commands our attention. With all this coal at home, we imported in 1884 157,783 tons, worth £191,994.

The demand for coal for steamers is daily increasing. The Westport coal, being most in demand, brings the highest price, yet, so far, the mine has not been profitable to its owners. The causes of this are not far to seek—first, the shallowness of the bar, which prevents large ships being employed; second, the difficulty of working the enormous incline down which the coal is lowered; third, the difficulties in obtaining colliers and the strikes which have taken place. All these causes can be remedied, The harbour loan of £500,000 has been authorized, and £150,000 raised in London at 5 per cent. Extensive works from the designs of Sir John Coode are commenced, increased facilities for lowering coal are being gradually acquired, and; when these two difficulties are overcome, it is to be hoped that the last will be removed. Still, the sudden importation of a distinct class, and the necessity of keeping them almost unmixed with the rest of the colonials, naturally creates a difficulty. The men lack the pride of colonials, they have lower ideas of life, their morals are inferior, and their prejudices are stronger than are to be found amongst the general population. An attempt to work the mine with unskilled miners did not prove satisfactory, and the company have virtually submitted to be ruled by their imported miners, who are strong unionists, and who concentrate all the loyalty ordinarily shown by colonists to their adopted country in protecting the sacred rights of labour against the demands of capital. In Grey mouth some of the mine-owners have reaped a large reward. The coal is raised in one mine and run out from the mine level in the other, instead of being lowered as at Westport—in other words, at Greymouth it is beneath or level with, in Westport it is above, the railway. But the same, difficulty exists as to shipping in Greymouth, and a loan of £350,000 was also authorized for the Greymouth Harbour, and £100,000 raised on the same terms as the Westport loan, with the result that the harbour works, on which already £120,000 had been spent, are being rapidly pushed forward, with very encouraging prospects of ultimate success.

The East and West Coast Railway has been shelved for the present, and has become a question more of party politics than one of political economy. No doubt it will be eventually carried out, when coal carriage by land will vie with water transport. It is a serious question whether carriage of coals by land over such a line will pay; but coal is but one factor in the sum, and the subject of the railway, though hardly to be avoided altogether, is one of such importance, in so many various aspects, that it cannot be treated of fully. It is only a question of time when the railway will be made, hampered by the question on what terms it is to be made. The result cannot fail to be such an union between the East and West Coasts as to make them really one district, each supplying the other with needed staple commodities of life, and each contributing to the other's welfare. At the present time the demand for shipping purposes alone for coal from these mines far exceeds the supply; but, when the mines are fully developed and the coal can be carried in large vessels, the markets open for it are

boundless—Australia, New Caledonia, Fiji, New Guinea, East Indian Islands, India, Ceylon, Mauritius, the Cape, China, California, Peru, Bolivia, and Chili. In San Francisco the coal from the Pennsylvanian Anthracite mines, which is only 1½ to 2 per cent; superior to the Westport steam coal, brings as high a price as £2 4s. to £2 os., and this affords an ample margin for profit.

The aid given by Government to develop this magnificent means of wealth and motive-power to all other industries has been slowly given. Railways have been made, and last year the West-port and Greymouth Harbour Bills were carried; but for ten years the field has been practically neglected, nor was the colony at large awakened to a sense of appreciation of the real importance of these coal deposits. During that time the companies have been impoverished, and more than one has been forced to liquidate.

But, "putting away the things that are behind us," what can be done for the future? The question of a protective duty on coal has been raised and discussed; but this is a poor help. If we wanted to conserve our stores, as some day we may have to, it might be right from a national point of view; but at present it would be more loss than gain. Direct aid to the companies in the shape of remission of royalties and carriage would meet with much disfavour in the House and could hardly be carried. Still, the enormous sums invested by the companies have greatly tended to clear the way for future success—to be achieved, perhaps, by those who at present have not a shilling invested; and deserves, if possible, encouragement and recognition. On the other hand, the "shepherding" of coal-mines should be sternly suppressed, and unworked leases cancelled, to be handed over to responsible persons or corporations who could guarantee to work them. The most profitable use for the coal at home will probably be found to be in smelting iron, tin, and copper. New Plymouth has her ironsand, Nelson her copper, and Northern Buller her tin. If, in a small way at first, smelting furnaces were erected near the coal-mines, vessels could bring the ore and carry away metal and coals. The earning of double freight will cheapen the cost of transit, and lay the foundation of larger enterprise. Had this essay been written last year much would have had to be said as to the neglect shown in developing or fostering the coal industry; but, in face of what has been done by Parliament in the session of 1884, it cannot be said that reasonable means are not being taken to do justice to this important industry. Regret, no doubt, will be felt that through delay much private capital has been lost, and that investors are discouraged; but let the dead past bury its dead, and we look forward hopefully, believing that never again in our history will our coalfields be forgotten or neglected.

The quantities of coal produced from the different mines in the colony are as follows:—

The above twelve returns only include those producing over 10,000 tons per annum. There are ninety-four mines mentioned in the Statistics for 1884, giving a total output for the year of 480,831 tons, and an approximate output to the 31st December, 1884, of 3,007,198 tons.

We imported from Newcastle, New South Wales, during the year ending the 31st March, 1885, 144,442 tons of coal, valued at £170,830, the total import from all parts being 148,444 tons. There seems to be every prospect of being able to reduce this import steadily down to zero. In the report of the Secretary for Mines he says, "An inspection of the returns shows that the increase in output is mainly from the bituminous coals of Westport and Greymouth. This is important, as it is in the development of these coalfields that New Zealand has to depend to become self-supporting in the supply of steam and smithy coals. An essential factor in this development is the improvement now begun of the bar-harbours of Westport and Greymouth. In the success already attained at Greymouth there is good promise of that most desirable object being obtained there, for the depth of water on the bars determines the class of vessel that can be used as colliers. At Greymouth only about three years ago vessels carrying 200 tons had difficulty in crossing the bar; whereas now vessels carrying 600 tons can as easily be employed. The steamer 'Taupo' recently left with 900 tons. In contrast to this, the colliers from Newcastle load up to 3,000 tons or more, and there are much greater facilities there for loading, as well. All this clearly shows the importance, of improving as rapidly as possible the harbours and appliances at Greymouth and Westport, so as to enable a much larger class of vessels to be engaged in the trade, as it is the quantity carried on the same bottom, and the facility of despatch, that lessens the cost of distribution. At present a ton of coal can be delivered at Port Chalmers or Lyttelton by the class of vessels engaged in the Newcastle trade about as cheaply as from the West Coast."

By bringing the facts relating to our coal prominently forward, so as to obtain the attention of those possessed of skill and capital, and by this means inducing systematic and scientific working, the coal resources of New Zealand may be assisted in development, and employment found for thousands of honest workers. The Department for Mines has taken steps to have the mineral resources of the colony adequately represented at the forthcoming Colonial and Indian Exhibition in London, and it is believed that much good will result from such an attempt to make our mineral wealth more widely known.

MEAT AND CATTLE.

The enormous advantage to the sheep-farmer of having a remunerative market for his carcase-mutton is easily comprehended; and the rapid development of the frozen-meat trade has excited the envy and admiration of our neighbours. In 1884 252,422cwt. of New Zealand mutton, worth £342,476, was exported to the United Kingdom, besides 1,644cwt. of beef, worth £2,605; and a total export to all countries of 27,711 ½cwt. of potted and preserved meats, worth £59,224. In 1882 the quantity of frozen meat exported was valued at £19,339, or 15,224cwt.; and 26,016cwt. of canned meat, worth £54,397. This will give some idea of the increase since the trade first became established

To the New Zealand Land Company, belongs the credit of first instituting the export of frozen mutton. On the 18th February, 1882, they despatched the "Dunedin," a sailing ship of about 1,250 tons, from Port Chalmers, with a cargo of five thousand frozen sheep, weighing an average of 85lb. each. The greatest care was taken in preparing the sheep, freezing, and jacking them; The ship arrived in London on the 24th May, 1882, after a voyage of ninety-eight days; the mutton was landed in excellent condition, and sold readily at 7½d. per lb. Since then the New Zealand Shipping Company have fitted up their steamers for shipment of meat, and so have the Shaw-Savill line.

The New Zealand mutton commands the highest price in the market for frozen meat, and practical proof has been given of the colony's capacity to beat all competition in the production of first-class mutton. There were a good many difficulties to be met with, partly in combatting the reluctance of well-to-do customers to openly prefer imported mutton, and partly in defeating the sharpness of the wholesale dealers in palming off New Zealand mutton as best Welsh and Southdown. But the success of the trial has been so conspicuous and notorious that these difficulties are fast disappearing; but the danger has arisen of a want of reliance to be placed on every shipment, and this has been owing to the failure, or partial failure, of several cargoes. There has been carelessness or accident somewhere—it is difficult to exactly apportion the blame—and not only has heavy monetary loss been incurred, but great damage has been inflicted on the trade generally. As a straw indicates the direction of the Wind, so may the following circumstances, which have come under the writer's own knowledge, serve to point out the fault: Sheeps' tongues, finned, used to be a favourite dish, and they turned out clean, sweet, and so properly cooked, that they would peel without the slightest difficulty. Since the firm which supplied them so satisfactorily has been turned into a joint-stock company several tins have been obtained at different times, and they nearly all turned out unsatisfactorily. There were traces of black around the fat; there was a stale flavour about the whole, and the cooking was unequal, some being overdone, some hardly cooked at all. If any carelessness or want of cleanliness like this occurs in freezing the carcase mutton no wonder there has been failure.

It is said that the method adopted of freezing is not the best, and that the American process has greater advantages. It is described as consisting of a freezing chamber with double walls, between which is a current of air, and also a supply of asbestos haircloths or other non-conductors. Above the chamber is a reservoir of ice, or some other cooling agent, with an adjacent pump. Cylinders are placed at suitable intervals in the chambers. From the reservoir a pipe runs to the nearest cylinder and enters it at the bottom. Another pipe runs from the top of this cylinder to the bottom of the next, and so on throughout the series. A return pipe connects the cylinder with the reservoir. The cooling liquid follows the course indicated. From the reservoir it is thrown by gravitation, displacing the warmer liquid therein and forcing it up and over into the bottom of the next cylinder, and so on to the last, whence the pump lifts the warmer liquid back into the ice-reservoir. The cylinders being airtight, there is no contact with the cooling liquid, and the atmosphere in the freezing chamber may be kept at any temperature. Besides the utmost carefulness in having an efficient freezing-chamber, it is necessary that the sheep should be killed while cool, or "with the bloom on;" and that care should be taken in having the wrappers clean and well made, and that the original form of the carcase should be preserved. On arrival in London a proper receiving store is requisite, in order to obtain a gradual thawing of the mutton, and the removal of day unsightly marks or mildewed appearance.

This trade has sprung up with wonderful suddenness, and has been carried on with a wonderful success: it despises questions of protection or free-trade; it has hardened the price of meat within the colony, but it has not increased it to the regular customer; it only requires a continual supply of material to be not only profitable in itself, but to be the means of prolonging the sheep-farming industry of New Zealand on a large scale to an indefinite extent. Still, the trade requires to be watched with care, as the following extract from a London correspondent's letter will show: "The present state of the frozen-meat market is discouraging in the extreme. Never before has there been a more striking illustration of the necessity for some system in the regulation of the supply.. During the month now closing very nearly one hundred thousand carcasses of frozen mutton from Australia and New Zealand have been shot into London, with the results that might be anticipated. Besides the two regular fortnightly Orient steamers, the 'Opawa,' 'Oamaru,' 'Wellington,' 'Elderslie,' and 'Lady Jocelyn' have brought in immense cargoes from New Zealand; and, what with the weather—which has been almost semi-tropical in its severity—an unusual abundance of fish at an unusual lowness of price, and these untimely

arrivals, the supply is utterly in excess of the demand. The price of mutton has reached 4d. per pound, and the sale even at that has been exceedingly slow. It is evident that much has yet to be done by producers and shippers before this trade is placed on a satisfactory footing. On the other hand, it cannot be denied that New Zealand mutton is continuing to win for itself popularity far and wide in the provinces. I have just heard a little incident that will be of interest to those who anticipate high results in the future of the trade. A prominent medical practitioner in a cathedral town has stated to my informant that he uniformly prescribes New Zealand mutton to his patients, and that he finds they can use it with safety at an earlier stage of their convalescence than any other kind of fresh meat." Agencies will require to be established in other cities besides London, in order to insure a quick and certain sale, and it will probably be found that closer combination of interest between the ship's owner and the shippers will be necessary to effect the needful change for the better. Instead of depending upon ordinary agents at Home, an extended agency, with powers to extend the ramifications of the business, would help in a great measure to overcome such dangers as at present menace the trade—it is simply a question of good or bad management.

So far, experiments with beef have not been successful, and the trade can be said to be now confined to mutton. This is, from a general standpoint, to be much regretted, and in some parts of New Zealand, notably in Wanganui, a regular market for surplus large stock would be a godsend: the breeding of cattle there at times is overdone, and is therefore unprofitable. There is a danger of unsuccessful attempts being made to establish meat-freezing factories where circumstances do not warrant it. When cattle have to be brought long distances by sea it is inadvisable to establish freezing factories; and it is not because they have been successful in some parts of the colony where local surroundings are favourable, that every city in New Zealand can maintain the industry. Wellington, Dunedin, Auckland, and Christchurch will each be the headquarters of special industries, and it is useless for them each to attempt all. Let a generous emulation exist; but let it be guided by knowledge, and a national feeling that the sum of New Zealand's greatness is the aim to be looked to.

CANNED MEAT.

In 1878 the export of canned meat reached the value of £356,280; but it gradually decreased, until, in 1881, it was £107,476. In 1882 it rose to £261,105. In 1884 it sank to £59,224. The falling-off is doubtless attributable to the growth in the export of frozen-meat trade; and for the future it may be considered that only what are termed "small goods" will be canned or potted. There is no cause for regret in this; for, if the carcass sheep is exported whole with a profitable result, and the smaller edible portions canned, the total profit will be the more satisfactory. There is also a very considerable quantity of canned meat used in the colony, of which I am unable to procure the returns; but on gold and coal-fields the consumption is very considerable, while there is always a steady demand going on generally for well-canned tongues, sausages, brawn, pressed beef, mutton, &c. Of course the less waste of any portion of the animal the more profitable the result. In Chicago, it is said, no portion of the animal is lost. The blood is dried and made into a fertilizing agent, horns and hoofs are taken by glue and comb manufacturers, the hair is used for felt, plastering, and various other purposes, the bones are broken for bonedust, and so on. In New Zealand there is not yet this perfect utilization of the whole body, but in a very little while 'it may reasonably be expected to develop itself. The process of canned-meat-preserving is well understood in New Zealand, and some of the factories erected in Auckland, Wellington, Christchurch, Dunedin, Oamaru, Napier, and other towns are very complete, comprising factories for the manufacture of the tins, printing labels, and soldering.

CATTLE.

Many causes have combined to improve the cattle of this colony, and they will probably compare favourably with any large quantities of cattle in the world for breed. The number in the colony in 1881 was 698,637 (no more recent figures are available). Auckland had 158,181; Taranaki, 51,846; Wellington, 140,951; Hawke's Bay, 36,213; Marlborough, 9,919; Nelson, 31,620; Westland, 7,944; Canterbury, 111,155; Otago and Southland, 150,150. About 40 per cent, consist, of shorthorns, and the remainder of Jerseys, Devons, Ayrshires, Normans, and mixed breeds. The New Zealand Stock and Pedigree Company, Auckland, have done wonders towards improving the breed of cattle; and the annual exhibitions in Auckland bear testimony to the good effects produced by a generous emulation among breeders. Breeders from San Francisco and elsewhere have purchased "largely from Auckland, and the reputation of New Zealand as a producer of pure stock is rising surely. One great cause for this success is the immunity New Zealand has enjoyed from pleuro-pneumonia. There have been many scares, and prohibition of imported cattle has been several times proclaimed; but the belief is now gaining ground that the disease cannot exist or spread in a climate such as that of New Zealand—Oil the whole, it is considered that no specific can be given for the greater development of this

industry, other than the utmost vigilance and scientific care to prevent disease, the continuation of the present laudable ambition to produce prize stock, the careful choice of grasses best suited for the grazing lands, and the ordinary precaution to avoid over-production—a danger which will continue to exist with regard to large cattle until the art of freezing them for export has been perfected.

WOOLLEN MANUFACTURES.

This is at present probably the most important manufacture in our colony; but, as there has been comparatively no export of manufactured woollen material, it is difficult to arrive at a correct conclusion as to the actual state of the industry. In 1884 the export of woollens and blankets together only amounted to £1,610; the imports amounting to £75,151 for woollens and £25,370 for blankets, the duty charged being 15 per cent, *ad valorem*. In 1882 the amount for both was £155,314; but it must be remembered that the consumption in the colony of New Zealand woollens and blankets is very large, and is rapidly increasing as the superior quality of the fabrics is becoming known, and this seems proved by the above figures. The chief woollen mills are the Mosgiel, the Roslyn, and the Kaiapoi; and in 1882 (the last return available) they consumed between them 2,000,000lb. of wool. For some time after these mills were established the returns were not considered satisfactory by the proprietors; but excellent management and determined perseverance to produce really superior work has had a most beneficial effect: and these mills are now, it is believed, highly remunerative, though, from many inquiries made, it is found that there are many drawbacks to perfect success. In a joint letter from the above-mentioned companies to the Royal Commissioners on Colonial Industries, dated the 16th April, 1880, they say, "We do not advocate any addition to the existing rate of Customs duty, namely, 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. Secondly, 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 as Bradshaw's Act; and we would urge this on your most favourable consideration." They then give reasons at length for being permitted to work their mills longer than eight hours out of the twenty-four. On the whole, it seems they must have been pretty well content then, if this is all they had to complain of. The Factories Act they refer to is still in force, and, while deeply sympathizing with all efforts to make manufactures a success, we can never be forgetful of the overwhelming evil attendant upon working women and children long hours, and the necessity of legislating in order to protect these helpless ones. Not even the establishment of gigantic factories would compensate for the introduction of evils which the English Factories Acts were designed to suppress. In another letter Messrs. Ross and Glendinning urge that coloured yarns used in weaving should be admitted free of duty, as they are a special line of manufacture) and would not pay to produce in the colony. But this view is opposed by the manager of the Mosgiel Company. On the whole the suggestion on which greatest stress is laid is, that the Employment of Females Act is unjust and needless.

It appears, then, that at present the mills in existence are having a speedy sale at profitable prices for all their manufactures; but no doubt their success will lead to the establishment of other mills—indeed a woollen company has been started lately at Wellington; and that, when they have produced sufficient for home requirements, they will require a larger market; and I hope to show, in the section on trade, how that market is to be obtained. At present it is a matter of great congratulation that this manufacture has been so far a success, and that the goods are so generally admitted to be superior in quality to the imported article of equal price: a strict protective duty would rather tend to impede than assist its legitimate development, and it is not likely to be imposed. We must always bear in mind that to double the cost of necessaries is to perpetuate high wages, to the loss of the employer, without advantage to the labourer. The woollen manufacturers are now turning their attention to the making of clothing, and there cannot be a doubt as to the superiority of their make over ordinary imported goods. Great care is taken as to style, cut, and finish; and it is hard to distinguish some of their goods from tailor-made articles. In boys' suits especially their goods are infinitely superior to what can be ordinarily purchased; and, if the retail buyer could only purchase, at a fair advance on factory prices, there would not be a suit of imported goods sold. In order to overcome the difficulty with retail dealers the New Zealand Clothing Factory have retail shops in most towns. But the woollen manufacturers could not do that well, and at the same time sell largely wholesale. Still, the retail dealers should learn, or be taught, that their real interest lies in promoting the sale of New-Zealand-made goods.

The woollen exhibits in the Exhibition command the admiration of all, and the writer's attention was at once taken by the beautiful softness of the material, the good taste displayed in colours and patterns, and the variety of articles manufactured by the New Zealand Clothing Factory. The same remarks apply to the Mosgiel Company's exhibit, where coloured yarns and tropical tweeds formed the specialities. For beauty, usefulness,

and interest combined I think these exhibits take the premier position in the Exhibition. I was glad to notice quite lately the declaration of 10-per-cent. dividends by some of the woollen companies, which is the best practical proof of their success. The writer travelled a long distance to Wellington for the special purpose of obtaining the advantage of a visit to the Exhibition, in order to see the things about which this essay is written, and felt fully recompensed for his trouble in so doing.

BOOTS AND SHOES.

Naturally following woollen fabrics, boots and shoes come in. In all the large cities there are boot and shoe factories, and the work turned out, though differing in excellence, is generally most satisfactory. The manufacturers have endeavoured to give a workmanlike finish to their productions, and for neatness and elegance, especially in men's boots, the colonial production compares most favourably with the imported article. Like the woollen manufacture, the boot industry does not appear now to require a higher protective duty, and is rapidly expanding, though in 1880 the manufacturers were almost unanimous in demanding a protective duty of from 20 to 40 per cent. The chief point to be observed is the quality of New Zealand leather, which sometimes appears softer and not so durable as imported leather, probably because of haste in tanning; but for price, finish, and workmanship New-Zealand-made boots are not surpassed anywhere. Connected with this subject is the question of tanning, and it appears, from the evidence of Mr. Charles Coombes, of Dunedin, tanner, that the native bark of New Zealand is excellent for tanning, but that it is not to be procured, though in the forests on the West Coast there are thousands of tons of fine bark for the mere labour of getting it, the bark of the birch, the hinau, and the rimu being excellent for tanning. It is worth £5 a ton at the mill. It certainly does appear strange that native bark is not used when procurable in abundance, and that the saw-mills should disregard this means of profitably utilizing their bark.

In 1881 there were thirty-one boot factories in operation, employing about thirteen hundred people, and producing 280,000 pairs of boots and shoes. Since that time the number has greatly increased, and the import of boots and shoes is steadily decreasing. In 1884 we imported boots and shoes, to the value of £143,840; in 1882 the value was £196,140—which shows satisfactory progress in home production, when taken in connection with the increase of population. The islands will, or ought to, furnish a good outlet for surplus production, when we have taken up our proper position in regard to the trade to be done with them. In the meantime New-Zealand-made boots and shoes are fighting the imported article with fair success, and there is no doubt will be victorious in the end.

The shoe leathers, bookbinders' leathers, hat leathers, furniture leathers, and manufactured boots and shoes at the Exhibition are very good, and, so far as it is possible to judge, are equal if not superior to any imported goods. Not having an opportunity of handling or wearing the exhibits, of course appearances were performed our only guide.

AGRICULTURE.

From a population-supporting point of view this industry is the most important in the colony, as the following figures will show: Persons engaged in agricultural and pastoral pursuits, 54,447; in mechanical pursuits, 17,602; in working and dealing in textile fabrics, 11,930; in working and dealing in food and drink, 7,063; in animal and vegetable substances, 4,872; in minerals, 22,710; in undefined labour, 17,822: total, 136,446.

The foregoing figures combine the pastoral and agricultural occupations, and I can get no separate returns. Still, I think it is sufficient for our purpose. Grain is the chief article of export that gives statistical importance to agriculture. In 1867 we imported wheat and flour to the value of £145,959 more than we exported; and in 1882, fifteen years afterwards, the exports exceeded the imports by £839,297. In 1884 we exported £436,728, and imported only £1,100. A duty of 9d. per 100lb. has been imposed since 1879. Nearly the whole of this quantity comes from Canterbury and Otago (see Table). Of oats, we exported in 1884 £267,286 worth, the supply coming from the same provinces; and the import was only £74.

These returns are truly magnificent, and would lead one naturally to believe that agriculture, especially grain-growing, is the truest and best industry of the colony. But, while it is a matter for congratulation that the colony should be producing the whole of its breadstuffs, and exporting so largely of its surplus production, it is hardly true of the colony generally that agriculture is a profitable or favourite occupation for the native-born youths and men. In Canterbury and Otago soil, climate, and accessibility assist the grain-grower, railways carry his grain, and the land is easily brought under crop. Elsewhere, but especially in the North Island, the complaint is general that farming does not pay. The want of means of transit to market prevents the small farmer from making the same profit from his labour that the other toilers do, and there is not the natural facilities for farming

on a large scale that there is in the South Island. It is a fact that in the North the native-born youths are averse to farming, and prefer to get near the towns if possible. Nor are they at all to be blamed for this, but rather praised for, brought up on a farm, they grow up in ignorance, which they bitterly feel when brought into contact with those from the towns. Their eyes are then opened to the easier and more money-commanding life that others lead: with the result that they centre towards towns at the first opportunity. Moreover many parents encourage this feeling, and convince great repugnance to bringing up their sons to the hard life they have themselves endured. It is difficult to conceive a life more miserable to an intelligent youth than the drudgery of an unprofitable farm.

Unfortunately many of the farms in the northern portion of the Auckland Province must be classed as unprofitable, and are only occupied because the owners do not know where else to go to and make a fresh start. After an absence of nearly twenty years I rode the other day from Mahuramgi to Mangawai, and the district had actually retrograded from the condition it was in after the first two years of its settlement. There were no roads passable for drays in wet weather, places where former settlers had tried to make homesteads were deserted, the number of settlers had actually decreased, and, were it not for the money circulated by the gum-diggers, and some timber export, the whole country would have been desolate. Near all the towns there are splendid evidences of good farming, carried on in an apparently successful manner, and where dairy produce of all kinds finds a ready sale at remunerative prices. The failures so far have chiefly been where the attempt has been made to settle in "the bush," where, from distance and want of means of transit, what was grown could not be sold at prices that would pay. The great fact, however, remains that, except perhaps in Canterbury and Otago, the population will not prefer husbandry while they can get anything better; and that "better" will be afforded by the development of manufactures, trades, and trading. There will always be a sufficiency of farmers; but, if New Zealand fulfils her destiny, the proportion of agriculturists will be less than it is at present.

Outside the large grain-growers the most successful farmers are the makers of dairy produce; and evidence is not wanting that systematic improvement in this department is being made. The dairy factories of New Zealand are increasing in number, and the meat-preserving companies are offering inducements to dairy farmers to send their produce to them. Ashburton and other New Zealand cheese is worth £65 a ton in London, while it has fetched as high as £3 11s. 6d. per cwt. At Edendale, Ashburton, Wanganui, Greytown, Carterton, Woodville, and other places cheese factories are in full operation. Butter factories are also springing up, with, so far, satisfactory results. The great aim should be to produce a really first-class article, and allow no temptation of present gain to encourage the export of second-rate goods. The skill and attention this branch of farming is receiving is shown by a perusal of the weekly provincial papers, in which a large space is devoted to the subject, and valuable hints and suggestions constantly thrown out.

Of course successful dairy-farming is, like other branches, dependent upon means of access to markets or agencies, and it is by opening up the country by railroads and other means of cheap transit that this industry can be encouraged and developed. "Had I not been a helpless cripple," says Sir Julius Vogel, "I would have preached the doctrine of railways from one end of the Island to the other." But railways, politics, and theories are inseparable, and the stern condition against importing such subjects into this essay deters me from following the subject further. Fortunately, however, the struggle is not whether railways shall be made, but merely how they shall be made and financed. One thing seems to be certain; that farming lives where railways or even good roads are, and that it languishes and is avoided where they are not. The proportion of farmers in New Zealand paying rent for their farms is not large; but the number who are paying rent in the shape of interest on mortgages is comparatively enormous, and the high price of money tells upon the farmer with great severity. When the New Zealand Trust and Loan Company can report that they have £1,473,376 lent on freehold land in New Zealand, and can pay a dividend of 20 per cent, per annum to their shareholders, most of whom reside outside the colony, some idea can be formed of the drain that is going on from the colony. To pay 10 per cent, for money is a life-killing tax to the farmer; for, although the nominal rate of interest may be 2 or 3 per cent, lower, charges for obtaining loans, renewals, transfers, and releases bring up the average rate to quite 10 per cent. Yet, in these days of high-class farming, it is seldom the smaller farmer can do without borrowed money; and even with its aid they can hardly cope with the large farmers, who, from the extent of their acreage, can purchase labour-saving machinery extensively. A now famous author says, "One invention after another has already given the large farmer a crushing advantage over the small farmer, and invention is still going on. And it is not merely in the making of his crops, but in their transportation and marketing, and in the purchasing of his supplies, that the large producer in agriculture gains an advantage over the small one. To talk as some do about the "bonanza" farms breaking up into small homesteads is as foolish as to talk of the great shoe factory giving way again to journeyman shoemakers with their lapstones and awls." The result of this will be seen when the struggles of the small farmer cease to be able to provide the interest on his mortgages, or his direct rents, as well as necessary sustenance. Then will the capitalist call in his mortgages, with the result of merging many small farms in one large holding; and the agriculturists will only be composed of the two classes—the

capitalist farmer and the farm-labourer. On the one hand we have our statesmen striving to protect the smaller men from the maw of the land swallower; on the other, the constant cry that produce can be obtained more cheaply by concentration of small holdings into one than by allowing the small holdings to 'continue. This is the point where the interests of capital and labour diverge: when capital cries out for more hands, but strives at the same time to reduce the rate of pay, and looks only to the percentage obtainable from capital invested, where it denies to labour any profit but only actual earning. The small farmer may hope for something more than daily wage, though too often this hope is never realized. The large farmer says, "My profits shall increase year by year, though wages, or the recompense of labour, shall not increase—brains and money must triumph in the end over unskilled labour." This is the problem for which no final solution can be expected, now or at any other time. The solution lies in the education of our masses in habits of sobriety, in obtaining the political power, and in wisely wielding that power when obtained.' The struggle must ever go on—whichever side sleeps will be defeated—but the victory will fall to the bravest, most enduring, and liberal-minded. Not in strikes or violence, not in desperation or sullenness, will the working-classes "find their best weapons, but in endeavouring to understand where their best interests lie, and by electing representatives who will maintain those interests. If the desire of our rulers is to promote and secure the greatest happiness of the greatest number, every endeavour will be used to check the tendency to create but two classes—the rich and the poor. No specific can be given, but by constant vigilance and a liberal, whole-hearted policy the small farmer can be kept alive for many years.

If the system of only making roads where the present traffic will pay for them is persevered with, farming in many districts where it is at present carried on will languish and fade away. I give one instance. The Karamea Special Settlement was founded about twelve years ago by Government at a very large expense: men were landed there, supported, and encouraged for years; many of them were quite inexperienced in the work, and many left the district before very long. The residuum have profited by hard experience, and there are at present in the district a number of farmers, who, if they had any opportunity of selling their stuff, would be comparatively prosperous; yet, as a fact, they are absolutely without a road in or out of their settlement, and cannot drive a beast overland to any" market. A steamer calls at irregular periods about once a month, and that is all the communication they have with the outer world. There are many settlements in the North Island in just the same condition. Where we have railroads, open land, and easy shipping, there the small farmers will be squeezed out by the capitalist farmer; where the small farmers would not be so squeezed out, they have to contend with the absence of roads of any reasonable kind. The small farmer is not much represented in Parliament, nor are his brains, as a rule, active enough to make sufficient stir to cause his grievance to be removed; but when he is annihilated his loss will be felt to the whole community. The establishment of a State Bank which would make prudent advances to the farmer at a low rate of interest, without heavy legal charges, would do much; but there are enormous difficulties in the way of doing this, and it is feared that at present there is not much chance of its being done. Agricultural colleges may serve to induce native-born youths to learn the business of farming; but roads and bridges are the greatest necessities in order that the waste places may be made fertile and peopled, and the race of farmers an increasing and prosperous one, for many years. But in order to provide cheap labour immigration is another necessity for the farming industry. The native-born are not averse to shepherding, shearing, and stock-riding; but they have too much faith in themselves to become agricultural labourers. The lot of an agricultural labourer is superior in the colony to what it is at Home; but the sons of the colonial labourer strive to take a still more onward step and rise superior to their parents' position. Whether immigration on a wholesale scale is a good thing for the colony is a many-sided question. For my own part I would prefer that the population of New Zealand should be produced by itself, with such a leaven as unassisted immigration will give; and the wholesale importation of the inferior portion of the population of all countries will not tend to raise us to a high standard as a people. The class of immigrants required for our agricultural interests is the small capitalist farmer, or rather the practical farmer having a moderate amount of capital at command. These are at present being attracted to Manitoba and elsewhere, and very few are coming to New Zealand. These are the men who will invigorate our farming interests both by example and by infusing well employed capital into the colony. The introduction of particular clans to settle in one locality is not successful or desirable, for they remain too long as strangers to the rest of the population, and intensify their prejudices and predilections.

TIMBER TRADE AND KAURI GUM.

In this trade Auckland has naturally the lead. The magnificent kauri forests, which belong to her alone, give her this supremacy. Dr. Hector states that the forests of New Zealand cover an area of twenty million acres. But the waste that is going on has aroused the anxiety of our statesmen, notwithstanding this enormous supply. The annual report of the Auckland Timber Company for 1885 shows upon how large a scale their operations are conducted: their assets are reckoned at £232,683 2s. 8d. In the Chairman's report he says, "Our stock of round

and squared timber now amounts, in round numbers, to twenty-eight millions on tidal waters and creeks." The annual output of kauri timber from Auckland is about 110,000,000ft., and the highest estimate of the amount of timber in the kauri forests is 23,000,000,000ft. Bush fires destroy great quantities of standing timber annually, though the loss is not actually so great as might be supposed, as the larger trees are not consumed by the fire sweeping through the forest, and a large-sized tree that has been circled and killed by fire affords the most durable wood; but smaller and growing trees are destroyed) and the future generation will suffer for the waste and carelessness of the present. From Kaipara—the port of the largest kauri-timber district in Auckland—comes this complaint and suggestion: "The kauri timber is disappearing very fast, as it is not only being sawn up in the district, but very large quantities of baulk timber are now being sent away: ships are loading here for Melbourne and Sydney with baulk timber. Large quantities of kauri rickers are now being cut down and sent to Auckland for spars. In our opinion this should not be allowed; no timber should be cut under a certain measurement. Bush fires are also doing great damage to the forests here, and severe penalties should be enforced on all persons setting fire to the bush by carelessness or otherwise. As, however, in spite of all precautions, the country is sure to be gradually disforested, new plantations should continually be made, and care taken that only suitable trees be planted. Many millions of feet of kauri timber have been wasted in opening up the tidal bushes on the Wairoa by using it for making tramways, when a light iron rail laid down on the kahikatca would have done as well. We think an export duty should at once be placed on all baulk timber leaving the country." With regard to kauri gum, the writers of the above say, "If varnish could be manufactured in New Zealand a considerable amount of money would be saved. We would suggest offering a bonus for the manufacture of varnish."

Besides kauri, the totara, kahikatca, rimu, and silver pine are most valuable for general purposes. Rata makes admirable knees for ship-building, and is too often used for firewood. There are, altogether, about sixty-six different kinds of useful woods, and about half these are reckoned as adapted for general purposes. The mottled kauri is the most valuable of all, and is getting scarcer every day. We imported in 1881 about twenty-two thousand pounds' worth of timber, chiefly in logs, from New South Wales, and Tasmanian posts, palings, and rails. In 1882 the return gives £62,881 as the value imported—a very considerable and satisfactory falling off. Nearly all the imported timber is for the purpose of being worked up into valuable articles. There is a duty of 2s. per 100ft. on undressed and 1-s. per 100ft. on dressed timber, which is prohibitive except for exceptionally valuable kinds. Much of the timber sawn is used in the colony; but our export for 1885 was £140,000. The subject of bark for tanning has been referred to in the section on leather manufactures, and is well worthy of serious consideration. To Sir Julius Vogel belongs the credit for having attempted seriously to rouse the colony to the necessity of conserving our forests; but, so far, the effort has not had much practical success, and the matter is being discussed in the present session of Parliament, sitting while this essay is being written. The Crown forests of the colony are estimated at ten million acres, and over this estate Government can exercise its control at least, and set a good example. By planting on 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, much good may be done. The blue-gum, wattle, hickory, ash, oak, cork, and elm would do well, if proper attention is paid to them at first. It is said that olives and mulberries might be planted in situations where they can be easily looked after, by way of experiment with a view to the introduction of the olive and silk industries by private enterprise in the future (*vide* report of Royal Commission).

There is an immense quantity of woodware manufactured in the colony. The Union Sash and Door Company, as their name implies, produce great quantities of sashes and doors of various kinds, besides mantelpieces and general house-building furniture. The Dunedin Iron and Woodware Company produce more miscellaneous goods with success. Besides these there are woodware steam-mills in every city and town, where timber is turned out in all states, from the rough weatherboard and scantling to the polished table and chiffoier. Furniture-making in the colony has reached a great state of perfection, and the high duty of 17 per cent, *ad valorem* has given it as much protection as can safely be afforded without declaring for prohibitive duties. The industry is furnishing much employment for lads and youths, many of whom are showing great skill in the work. There is, of course, a desire amongst many well-to-do people to have English furniture, and it is but fair that they should pay for the luxury of indulging their tastes in this respect. This industry will be promoted, along with many others, by finding an outside market, and so proving to New Zealanders that their wares are appreciated by others, and that they need not be at all ashamed of using them themselves. Where that market is I hope, to be able to show by-and-by.

Kauri Gum.—In 1883 we exported 6,518 tons of this article, worth £336,605. I am afraid those engaged in the occupation of digging the gum have acquired a very poor reputation, it being generally supposed that only the outcasts from society engage in it. There are at the present time over two thousand persons—white and Maori—engaged in gum-digging. Why it should be written of gum-diggers, "It is generally supposed that a

European who resorts to gum-digging is unfitted for any other occupation," I do not know; nor why "All the finer feelings of his nature become blunted, and he falls to a lower depth than the savages with whom he makes his home." Having been at one time of my life engaged in buying gum, I know something about the work, and know that, with fair luck, good wages can be made in an independent kind of life, with no greater hardship than most gold-miners endure cheerfully. Yet the gold-miner is respected, the gum-digger despised. Nearly fifty thousand tons have been exported since 1871, and over two-thirds goes to the United States. It comes back to the colony in the shape of varnish. When we have mastered the secret of its conversion from gum into varnish the two freights, and intermediate profits, will be saved to the colony. The supply of gum is, however, being sensibly diminished, and with the diminution of the kauri forests will sink in importance.

HEMP, HOPE, TWINE.

The indigenous plant, *Phormium tenax*, naturally attracted attention to these manufactures. The beautiful flax mats prepared by the Natives were exhibited in London amongst the first trophies of the explorers of New Zealand. Dressed flax, prepared by the Natives, was an article of export for many years; but it has not kept up in quantity, partly because the Natives find other more remunerative employments. Large sums of money have been spent by Europeans in providing flax-dressing machinery, but, as a rule, loss has been the result. In 1870 the value of dressed flax exported was £132,578, and in 1873 it rose to the maximum of £143,799. In 1882 it sank to £41,955, and in 1884 to £800. There are, however, forty hemp mills and eighteen rope and twine works in the colony, employing upwards of four hundred hands; but the majority of the raw material used is Russian hemp and Manila. A considerable quantity of phormium cordage is made and used in the colony. In 1873 it was £4,001, but since 1876 it has not reached £1,000 a year. The difference in the price of labour between New Zealand and, say, Manila is sufficient to account for the industry not taking very firm hold, and indeed it can scarcely be expected or hoped that the colony will compete with countries where labour can be had for threepence a day or even less. The exhibits of the Auckland Fibre Company and of Hale and Throp appeared to the writer to be all that could be wished for.

TOBACCO.

There has been so much written and said about growing tobacco in the colony that the subject naturally finds a place in this essay, although at present it cannot be said that the attempt to grow and manufacture tobacco has met with very signal success. Yet it seems to have been sufficiently demonstrated that tobacco of the finest quality can be grown in Auckland, and that there is no reason why the whole of the tobacco used in the colony should not be grown in it, unless the revenue steps in and finds, as it did in the distillation of spirits, that the manufacture within the colony entails too great a loss to the revenue. At the present moment the duty on imported tobacco ranks next to that on spirits. The intrinsic worth of the article maybe gathered from the fact that a single acre will produce between 1,500lb. and 1,800lb. weight. The duty at present is 3s. 6d. per pound, and in 1881 the gross amount of duty received was £200,884, which would be about 921,000lb. Of cigars, 69,295lb. were imported, at a duty of 6s., giving a revenue of £21,985, and of cigarettes, 23,311lb., duty 6s., giving £6,310 16s. 8d. New Zealand grew, in 1884, 4,776lb. of tobacco, and manufactured 1,451lb. of cigars and 1,348lb. of cigarettes, the duty on home-grown tobacco being 1s. a pound. The Royal Commission of 1880 reported that the Tobacco Act of 1879 had destroyed the tobacco-growing industry, and that that was the intention of the framers of the Act, and the tendency of the policy recommended by the Customs Department and adopted by the Government. The Commissioners say no compromise is possible, and that, 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 1879. If this is still the feeling, there is little use in printing long papers on the growth and cultivation of tobacco. Better far to accept the inevitable, and admit that, for fiscal purposes alone, we must exclude tobacco and distillation from the list of our home industries. It will be observed that a few hundred acres would grow all the tobacco at present needed in the colony; that the value of the tobacco is low, were it not for the duty; and that, until we are in a position to export tobacco to new countries, the advantages of growing our own supply may be easily outweighed by the inconveniences arising to the fiscal necessities. It certainly is hard upon the smoker, to whom, perchance, tobacco is the one luxury, that he should have to pay so much for his innocent enjoyment; but he gets off more lightly than the spirit drinker, who has to pay 14s. a gallon, or 2s. 4d. a bottle, on every drop of liquor he consumes. The value in sterling of total imports of tobacco is worthy of notice and comparison with the duty received, omitting shillings and pence:—

Comparing this with the duty on spirits, brandy to the value of £77,101 produced in duty £103,774. The total value of spirits was £215,411—duty, £380,326. This is without spirits of wine. The value of the tea

imported was £180,301, and the duty (4d.), £73,196. But, although there may be such strong reasons against encouraging the growth of tobacco, these do not weigh equally against the manufacture of the imported leaf; and there are strong hopes of this branch developing into one outlet, at least, for colonial labour, and perhaps favourably affecting the exchanges.

SUGAR.

Let us begin by stating the figures represented in this article if the statistics for 1884. We imported that year raw sugar worth £189,931, paying a duty of £19,535, and refined sugar worth £504,667, paying a duty of £87,953. Here are figures—that will cause those who are in search of payable home industries to ask if we cannot produce our own sugar. Mr. Vincent Pyke, M.H.R., says beet sugar spoiled his tea, his whiskey, his pudding, and everything else he used it for; yet are many facts to make us believe that beet sugar can be profitably produced in the colony. I saw in a recent newspaper that specimen beet roots grown at Waverley, and forwarded to Dr. Hector for analysis, only yielded from 6.4 to 3.2 per cent, of sugar. But in other trials 15 and 20 per cent, has been obtained. In France and Belgium some years ago only 9 to 10 per cent, was obtained; but careful cultivation and selection of seed has raised this average to 15 to 18 per cent. That the climate and soil of New Zealand is suitable for growing beet there seems ample proof. The main question is one of labour, which still remains high; and, until the questionable advantage of cheap labour is obtainable in the colony, many people doubt whether the industry would pay. It has already been explained that the native-born population of the colony do not take kindly to agriculture, and root crops would be a department in agriculture especially distasteful. Still, looking forward to a rapidly-increasing population, this industry may well, employ many men, boys, and girls in a useful, honourable, and profitable occupation; and certainly an occupation which, if not so brain-stimulating as others, is infinitely more healthy than factory work. The Beet-Root Sugar Act of 1884 provides that there shall be a difference in favour of the locally-produced article of ½d. per lb. in the tariff on sugar, and offers a bonus of ½d. per lb. on the first thousand tons of sugar from beet-root produced in the colony. A good deal of information has been gathered on the subject by Sir Julius Vogel, and is embalmed in the State papers and in *Hansard*. The industry may not rise to prominence for some time, but eventually there is little doubt that it will be an important one in the colony.

FISHERIES.

Scarcely any country is better supplied by Nature with fish than New Zealand, yet it can hardly be said that the fishery industry is established on a satisfactory basis. There is a very large importation of preserved fish into the colony both from America and England. In 1884 we imported dried, pickled, and salted fish to the value of £8,613, and potted and preserved fish to the value of £42,473. The duty on the former is 2s. per cwt., and on the latter, 1d. per lb. Our export of New Zealand fish in 1884 was insignificant, reaching only a total of £299. Yet frozen fish have been successfully carried to London, and great hopes were raised that a market might be found there. If it be true that all the weight and influence which was brought to bear in establishing the Fisheries Exhibition in London, and in endeavouring to break down the monopoly of the London Fishmongers, extending over the whole kingdom, was unsuccessful in effecting its object, then I fear we cannot hope much from a fish trade with the United Kingdom. The acclimatization of salmon has been many times attempted, with partial success; but the result so far should not be discouraging. The Secretary of the Auckland Acclimatization Society says, "From what is known of the habits of the Californian salmon it is certain that the young fish make their way down to the sea shortly after hatching, and remain in the sea or estuaries for several years; sometimes, however, making short runs up the rivers. They do not appear to be fit for reproduction until about four years old, when they proceed up the rivers to deposit their ova. From this it is obvious that for four years after the hatching of the ova we could hardly expect to see much of the fish. Again, although the fish hatched from seventy or a hundred thousand ova might amount to a good round number, yet, when we consider the enemies which, like the fry of all fish, they would have to contend with, first in the fresh water streams and later when they reached the sea, there can be no doubt that the number spared to reach maturity would be small, perhaps so small that they might proceed up a large river without being observed. It must also be remembered that any number of young fry might go down the river to the sea without attracting much attention, as they would be confounded with the whitebait and other small fish so common in our rivers. But when the adult fish ascend the rivers then we may expect to hear something of the salmon. Taking the breeding age of the Californian salmon at four years, this would not be until eight years after the importation of the ova. It is well to mention that the facts relating to the importation of the British salmon into Tasmania strongly corroborate this view. Salmon ova were brought from Britain, hatched in a suitable establishment on the Derwent River, and turned out into the stream. For years nothing was heard of the fish, and most people believed the introduction a complete failure.

After the lapse of ten years a few grilse were caught in the lower part of the river. The next year they were abundant, and have been steadily increasing ever since. Evidently the mature fish from the original ova had passed up and down the river unnoticed, and it was not until their progeny became mature that the fish were observed." There are, altogether, 192 different kinds of fishes found in New Zealand waters, some of them very rare and only described from single specimens. Of 140 species enumerated by Dr. Hector, sixty-seven are peculiar to New Zealand, seventy-five are common to the coast of Australia, ten are found in New Zealand and other places but not in the Australian seas.

The following is a list of the various kinds of fish found in the New Zealand market, taken, with some remarks, from the able work of the American Consul, Mr. Griffin, and from Dr. Hector's report: Hapuku, kahawai, red schnapper, schnapper, tarakihi, trumpeter, mold, frost-fish, barracouta, horse mackarel, trevally, kingfish, John-dory, boarfish, warehou, mackarel, rock cod, gurnet, mullet, sea mullet, wrassy (spotty), butterfish, haddock, red cod, whiting, ling, turbot, brill, flounder, sole, garfish, grayling, smelt, hokopu, minnow, sand-eel, anchovy, pilchard or sardine, sprat, eel (tuna), black-eel, conger-eel, silver-eel, leather jacket, smooth-hound, stingaree, skate.

Of these fish, the hapuku is always a great favourite. It bears a striking resemblance to the celebrated Murray cod, of the rivers of Australia. The hapuku, however, never enters fresh water, but is a deep-sea fish, although often captured near the coast. Its average weight is about 45lb. Specimens have been caught weighing 130lb. The head and shoulders are described as being very delicious. The kahawai, often called the native salmon, afford great sport to anglers. They sometimes weigh between 7lb. and 8lb.; but the meat is dry in the large size. In the early stage of their growth they are spotted like the trout. The schnapper is another very valuable fish. It frequents shallow water, and is caught with hook and line. Its average weight is from 4lb. to 5lb., in some parts running to 10lb. and 15lb. in weight. It is remarkable for its abrupt profile, and the brilliant metallic lustre of its scales. The trumpeter is the best flavoured of all the New Zealand fish, and is very abundant. It is also found in Tasmania and Victoria. The frost-fish is often met with in the market. It is not obtained by fishing, but is found, after cold frosty nights, cast up on the shore by the long roll of the ocean swell. The barracouta is so called from its resemblance to the barracouta-pike of the tropical parts of the Atlantic. There are three or four kinds of flat-fish, all of which are of fine flavour. The patiki, one of these, is very common. The Maoris spear them in clear shallow water. The flesh is tender and delicious. There are some excellent freshwater fish, such as the upokororo (the Native name of the grayling), the kokopu, the family of Galaxidæ, Maugawai smelt, and others. Dr. Hector, in his report on the food-fishes of New Zealand, says of the kanae (*Mugil perusii*), grey mullet: "This mullet excels all other New Zealand fishes in richness, and is now dried and smoked in large quantities for sale in Auckland, where several extensive establishments also exist for tinning this fish. In this form it is highly esteemed, rivalling the American tinned salmon in the market."

The Bill now before the House provides bonuses, namely, for the first 200 tons weight of colonial cured and canned fish, 1d. per pound, and in respect of every extra ton over the first 200 tons, a bonus of per pound. The Bill also provides for setting apart land on the coast-line as sites for fishing-vallages; and for conferring certain privileges upon persons entering into the fishing industry. This Act passed, and is now law.

An excellent letter on the subject has just appeared in the *New Zealand Mail*, from the pen of Mr. A. J. Rutherford, in which he gives returns of the value of the United States fisheries, as under: Oyster fishery, \$13,439,000; cod fishery, \$4,000,000; Pacific salmon fishery, \$3,300,000; whale fishery, \$2,636,000; Menhaden fishery, \$2,117,000; Alaska, for seal, \$1,541,000; mackarel, \$1,501,000.

Mr. J. McKenzie, who was commissioned by a Scotch firm of merchants, states "that he found plenty of firm, delicate fish in the Firth of the Thames, near Auckland; northwards he found schnapper, mullet, kahawai, and bream of fine quality. Kaipara Harbour was swarming with the largest and finest mullet in the world. On the coast-line between Kaipara Heads and New Plymouth large shoals of schnapper, mullet, and kahawai are to be found during some portions of the year. Off Kapiti and Main, near Wellington, groper, moki, rock-cod, crayfish, kelp-fish, and butter-fish were found. At Picton Sounds fish were in teeming myriads. The most abundant fish is the Picton herring, which is not a true herring, neither is it a true pilchard; but it is a good fish, and adapted for tinning and curing; and, as it is found here in immense quantities, it could be so cheaply procured that the export trade in this article alone should rival in a few years the herring trade from the north of Scotland. Of course, this fish, as well as the herring tribe, is migratory; but fishermen would soon find out its habits, and follow it round from station to station, as is done with the Scotch herring. Groper, moki, ling, and crayfish were also found near to Cape Farewell on the west side. From Martin's Bay to Oamaru fish was in such numerous shoals, in-shore and off-shore, that millions of tons of fish could be caught yearly. It is simply a question of proper appliances, and finding out the best and quickest modes of catching the fish; for the fish are there in countless millions, and natural harbours abound from Milford Sound to Oamaru. The Sound swarms with blue cod, moki, trumpeter, rock-cod, and crayfish; and off-shore are great quantities of ling and groper. Ruapuke Isles, off Bluff Harbour, in Foveaux Strait, swarms with moki and trumpeter. Chasland's Mistake, on

the mainland, commands splendid moki fishing-grounds, and also blue-cod, rock-cod, and trumpeter fishing. And here barracouta were met with all the way northwards to off Oamaru; but off Cape Saunders and Otago Heads seems to be a general gathering-ground. The kinds of fishes that can be obtained in large quantities cheaply and fit for export trade tinned, wet and dry-salted, and smoke-dried are—Picton herring, in Cook Strait; groper, ling, barracouta, crayfish, cockles, flounders, trevally, silver-fish, mullet, kelp-fish, gurnet, and about twenty other varieties, including a kind of mackarel, abound on the coast of both Islands; and tinning and curing factories would use all in their season, if ever established. But the Other kinds, along with schnapper and large mullet of the North Island, are kinds to make the large trade with; and no other country in the world has such a variety, and distributed round its coasts so well."

It is proposed to establish fishing stations at Pelorus Sound, Queen Charlotte Sound, and Port Underwood; and certainly no lack of consideration of the important subject of fisheries can be attributed to the Government of the colony. Whether the consideration has taken a practical form is another matter.

Four species of oysters inhabit the coasts of New Zealand. Of these, the most important is the common rock-oyster, confined almost to the northern half of the North Island. These are largely sent to the southern ports of the colony; and the amount consumed in the district of Auckland would probably not equal that shipped to the southern districts. There have been several Acts passed for the conservation of the oyster fisheries, from 1866 to 1874; but, while all deplore the reckless way the oyster-grounds are depleted, no systematic endeavour has yet been successfully made to regulate the taking of oysters.

Whaling was, in the early days, an important industry to the colony; but it has so decreased and given way to other branches, and is so unlikely to be revived to any extent, that it does not call for much notice. In 1871 the highest return for whalebone and oil seems to have been reached, when £21,700 worth was exported; in 1882 the value was £4,541; in 1884 it rose to £7,414.

Whitebait is a delicious little fish, found in almost unlimited quantities on the west coast of the Middle Island, and in some rivers on the East Coast. It was at one time taken in such profusion that it was used for manure. But this barbaric waste has been stopped, and it is doubted whether the supply is not diminishing. A good deal is sent away by steamers to people residing in the North Island, and an attempt has been made to preserve it, but not with any great success, so far as finding a remunerative sale is concerned. No doubt much information has been collected by the Government upon this important subject of fisheries; and it rests with them, or local governing bodies, to stimulate enterprise by practical assistance, by aiding in the importation of salmon and trout ova, and by providing the necessary skill in promoting its preservation and development. Mr. McKenzie says, in his report, "As a central station for fish-curing and fish-tinning, Stewart Island seems to me to be one of the most suitable places in the world. It commands the best in-shore and off-shore fishing-grounds in the colony. Sawdust, the proper ingredient for smoking, can be obtained in abundance, for taking it away. There is plenty of timber and water. All that is wanted is population to supply the labour for tinning and curing factories, and a market for the preserved and cured fish. If capital, aided by Government subsidy, will start operations here, Stewart Island will be one of the wealthiest provinces of the colony."

SHIPPING AND TRADE.

Auckland takes the lead in shipping, and it is said that 140 men are regularly employed in the building of wooden steamers, sailing vessels, and boats. The models of the Auckland-built sailing vessels are very beautiful, and it is somewhat surprising that the trade has not extended more than it has done. Wellington has also done good work in building and reconstructing iron steamers: the latest iron steamer built there is the "Maitai," a credit to the colony. The kauri timber of Auckland is well adapted for ship-building, notwithstanding its tendency to shrink all ways after each dressing. There have been eighty-five steamers, altogether, built in the colony, and, with few exceptions, their machinery has been locally made. In 1884 the number of sailing vessels cleared outwards coastwise was 5,316; tonnage, 342,339; crews, 18,667. Steamers, 11,595; tonnage, 2,582,383; crews, 202,510: total vessels, 16,911; tonnage, 2,924,722; crews, 221,177. The inward clearances show almost the same figures. In sailing vessels Auckland claims 2,253, and the next highest in the list is Lyttelton, with 552—showing clearly where the sailing coasting trade chiefly lies. The magnificent vessels of the Union Company and the New Zealand Shipping Company form fleets of which we have reason to be proud, and travellers and globe-trotters asseverate that for comfort and efficiency they are equal to any lines in the world. With a development of the island trade, and possibly with federation and annexation, shipping in New Zealand must come greatly to the front; and before long it will be seen that Nature has made New Zealand supreme as a maritime colony. An attempt was made last session (1885) to give to our seamen votes, so that they might obtain special representation in Parliament, but without success. This was not from any want of sympathy with either seamen or the shipping interest, but from the inconveniences and possible clangers which would arise from such a special qualification.

Before long we trust that ships from our colony will no longer be confined to old beaten tracks, but will strike out for ports now seldom or never visited by our ships. In so doing they will extend the trade of our colony in a thousand various ways, and draw together the threads which are required to complete our commercial web. Attention has been lately called to the Brazils. The New Zealand Shipping Company's vessels are now touching fortnightly at Rio, on their homeward voyage; and by this means a footing might be secured for the Brazil and West Indian trade. Here is a market where the purity of our New Zealand textile fabrics, and the freshness and unadulterated nature of our products would be appreciated; and, with combination between manufacturer and shipping owner, we could land our goods at a price that would safely compete with other foreign shipments. At first the ship must be content with low freights, but, the trade once established, profit to all would be the undoubted result. Within a voyage of twenty days we have countries containing twenty millions of inhabitants, who are ready to purchase woollen fabrics and clothing, hams, bacon, cheese, and salt butter, frozen fresh butter, fish, game, fruits, preserved fruits and jams, smoked fish, sauces, pickles, candles, and soap, saddles, boots and uppers, colonial jewellery and greenstone and kauri-gum ornaments, ropes, twine, coal, timber, doors, sashes, and mouldings, paper, ornamental ironwork, carts and drays, potatoes, flour, biscuits, colonial wines, bottled ales and whiskey, pottery and tiles, cement, Mahurangi hydraulic lime, colonial furniture and kauri joinery, hats, rabbit fur, &c. The chief staples of Brazil are sugar, cotton, rum, molasses, coffee, tobacco, and bullion. There are also native cloths, diamonds, hammocks, pearls, cordage, preserved tropical fruits, and nuts. There are vast possibilities from the introduction of raw cotton into New Zealand, imperilling, perhaps, the purity of our woollen fabrics, but bringing into existence the cotton manufacturer (see paper by Mr. H. Cowper).

This matter of the trade with Brazil has already called forth several capital papers; and it is sincerely hoped that the practical outcome will be a co-operative combination, in order that a successful opening may be made. Then will the present numbers of our ships and seamen be multiplied, and the demand outside the colony for our goods will stimulate our own appreciation of them. The danger to be avoided is local competition, which may at the outset, flood the selected market with New Zealand goods, and cause so discouraging a loss to the shippers as to prevent a continuance of the experiment. This can be easily avoided by the formation of a mercantile co-operation, or export shipping company, which will be enabled to send out suitable selections, and time the periods of the arrival of each. Something like this has been begun in Canterbury, with fair success; but the movement might well be extended more vigorously than at present. The Auckland merchants have obtained an exhaustive report on the island trade; and, provided that the requisite number of men will sacrifice a good deal of their energies at first, and invest capital in it, there is no doubt that the requisite opening will be found for the expansion of our trade. There is not much fear of our merchants failing in this enterprise. The time of development may seem long to those watching it, but in the history of nations it will be seen phenomenally short. A nation of traders we are sprung from: it is still in the blood; and we cannot refuse to act up to instincts, even if we would. There is at present every opportunity of our colony being able to acquire Samoa, and buy out German interests for a comparatively small sum. This is one direction in which energy must be shown in order to make our manufactures successful; and, although unable to go fully into the question, it is looked upon as being of the first importance. The Government must be on the alert, and willing to expend the necessary funds at the proper time, and the people must be ready to support and back up the action of their rulers. Look at the possibilities with regard to New Guinea. Annexation has been delayed for the present. Germany is jealous again, but the fit will go off, and a few dollars at the right time will probably settle the question.

But, putting aside the difficulties of annexation—which, from a perusal of the parliamentary papers, appear to be great—and the question of the rights of the natives, a great trade might be developed with the present native possessors of that vast island. They raise large quantities of tropical produce, and have shown themselves willing to exchange their productions for European goods. The products known to exist at present are spices, camphor, gums, sandalwood, ebony, tobacco, sugar, vegetable ivory; besides which, birds of paradise, pearls, tortoiseshells, and other exotic products are to be met with in abundance. There is also evidence of the existence of gold, iron, tin, copper, and other minerals. In the high lands of the interior are plains suitable for breeding cattle and sheep. In exchange for this we can give the New Guineaites all the products of civilization, of which they will not be slow to learn the uses. We shall probably demoralize them to the extent of changing some of their present vices to those known to ourselves; but we may ameliorate their condition in other respects.

While we have been busy at home it is but natural that we have neglected to look much abroad; but the moment that we can spare time from pressing home calls we should cast our eyes far afield, and throw out our advance posts, to occupy before our neighbours.

Towards Fiji we have looked for some time with annexing eyes. In May this year the Imperial Government declared that they would not entertain the idea; but even since then there are tokens of modification of this view. Looking at the question only in its commercial aspect, and as it affects the development of New Zealand industries, its great importance is apparent. Trade follows the flag, and annexation or federation will become a

more burning question than it is at present. The Fijians themselves appear willing and more than willing to join New Zealand; but there has been a feeling with the Home Government to put the drag on her too-enterprising young colonies, and to interpose with difficulties, perhaps to test their sincerity and earnestness. I say nothing about federation with Australia—it is too purely political; but the Fiji and other island trade it is our right to secure, and, if we are in earnest in our endeavours to make ourselves a premier position as traders and manufacturers, we must allow no rival to beat us in the race, but must use all lawful means to secure the prize ourselves. Our trade with Fiji is at present insignificant; it ought to be of first importance. Let us trade with them in everything we deal in. The time would soon come when articles of our own manufacture would take the lead.

Indian Trade.—The opportunity afforded by the Bombay International Exhibition to introduce New Zealand meats and clothing into India is not likely to be neglected. It is proposed to open the Exhibition in Bombay in December, 1886. The New Zealand woollen goods are at present not known. Their lightness, warmness, and softness would recommend them; but of course there would be fierce opposition from the traders in established British stuffs, and price would be a difficulty until the real value of the goods became known. The trade in frozen meat would be confined to European consumers, as the natives will not touch any kind of meat slaughtered or handled by Europeans. Sir James Fergusson, writing from Bombay, says, "As a rule, the meat supplied in the market is poor compared to Australian and New Zealand meat; but very good meat can be obtained by the larger consumers, and generally that supplied to Government House is little, if at all, inferior. A great many Europeans would pay a somewhat higher price for a really good article, say 6d. to 7d. per pound instead of 3d. or 4d. Some of the Parsees would eat imported meat." The Indian market is more accessible for our woollens, then; and it is to be hoped that the forthcoming Indian and Colonial Exhibition, to be held in London, will do something to open the trade, and that it will be followed up by the Bombay Exhibition.

INDUSTRIES FOR WHICH THE RAW MATERIAL IS IMPORTED.

The fairest and best way of promoting the manufacture in the colony of various kinds of merchantable commodities is by admitting the raw material duty free. The Customs Act of 1882 provides that certain specified articles and materials (and others, as may from time to time be specified by the Commission), which are suited only for and are to be used and applied solely in the fabrication of goods within the colony are admitted free. In many cases this has been found to be sufficient to establish a manufacture in the colony. For instance, in writing papers, there are several firms in the colony supplying writing papers at English prices, plus the freight and duty; and they are enabled to do so because they can import "writing paper of sizes not less than the size known as demy, when in original wrappers and with uncut edges, as it leaves the mill," duty free; and the duty on manufactured paper is 15 per cent, *ad valorem*. Again, bookbinders' materials are admitted duty free. Indeed, the following may be taken as a general list of manufacturers' imports admitted free:

Aerated-water makers' material, confectioners' material, blindmakers' material, bookbinders' material, bootmakers' material, brassworkers' material, brushmakers' material, carriage-builders' material, dairy utensils, ropemakers' material, copperworkers' material, cotton-clothiers' material, farm implements, hatters' material, saddlers' material, printers' material, builders' (nearly all free) and contractors' material, machinery for agricultural purposes, machinery for brick and tile-making; machinery for planing, punching, sawing, shearing, turning, and quartz-crushing; machinery for mills and looms, machinery for steam vessels, machinery for wool and hay-pressing, manufacturing chemists' material, painters' material; millers' material, shirtings in piece, workmen's tools, stavmakers' material, tailors' trimmings, tinsmiths' material, upholsterers' material, and zincworkers' material.

The above list also points out pretty well what manufactures are established in the colony, and most of these are progressing fairly. Why perambulators should be admitted free, seeing that there are makers in the colony, I cannot explain, except it is to encourage reproductiveness, and take off one of the many burdens of the parents of the occupant of the perambulator. But, with a long list of manufactures which can be made in the colony, the difficulty is to get them known outside the particular district in which they are made. Not long ago I was shown in the South Island a couple of wooden tobacco-pipes made in Auckland. These were of a very superior finish and make, and the price was certainly not more than that of imported articles of the same value. But it cost my friend 3s. 6d. for freight on these two pipes, and I have not seen any others since, though I have no doubt they are on sale in some parts. If the opportunity was taken at this Exhibition time, when people's attention and sympathy are attracted to colonial industries, to vigorously and systematically push the sale of colonial goods, by means of travelling agents, who would combine many lines in their commission, and who would perhaps imitate insurance agents, and give entertaining and instructive lectures upon the necessity for the people supporting colonial industries, much might be done. It is useless to expect importing houses to bother

themselves with local manufactures; they may be neutral, but that is as much as we can expect of them, inasmuch as it pays them far better to import direct from large houses at Home rather than to collect from local makers; while the endeavour to be both maker and retailer in a simple shop or store will only be successful as a demonstration of the possibility of making a particular article in the colony, but will not establish it as an industry.

OTHER INDUSTRIES.

The manufacture of soap has been attended with success in the colony, and has fairly driven out the imported article, except in fancy kinds. Messrs. Kitchen and Son and Messrs. McLeod are, I believe, the largest manufacturers in the colony; and the exhibits of the former firm at the Melbourne, Christchurch, and New Zealand Industrial Exhibition have excited universal admiration. The same outlet for production over home demand is to be found, as for other manufactures, by looking after new markets, as pointed out in the section on trade and shipping. It is estimated that the value of the soap and candles produced in the colony is about £120,000. In 1884 candles to the value of £74,452 were imported, at a duty of lid. per pound. The value of common soap imported was £1,836, and of fancy soap, £3,696. We are hardly likely to reduce the quantity of imported fancy soap materially, because those who use toilet soaps will generally pay large prices for special brands, such as Pears, Rimmel's and other celebrated makers. With the manufacture of soap and candles is connected the manufacture of sulphuric acid and artificial manures. One by-product of the candle industry finds a use and a ready market in the woollen factories engaged in making tweed, blankets, hosiery, &c., taking the place of the expensive oil of Gallipoli; while the fatty acids from these factories is reconverted into stearine, fit for soap and candle-making. A further outcome from sulphuric acid and tallow might be the manufacture of glycerine, with its possibilities in relation to dynamite, gas-meters, paper, ink, leather, &c. The raw material for the manufacture of sulphuric acid is plentiful within the colony, yet it is at present brought from Victoria, though the value of the whole import for 1884 only amounts to £157, and it is admitted free of duty. The plant for its manufacture is said to be very expensive, and at present it appears wisest to import it. The question put to Mr. McLeod, to this effect, "Is there anything which can be done by amendment of the law which would in any way further your trade?" was answered, "I think not." Mr. Kitchen's evidence before the Royal Commission of 1880 was that the candle duty should remain as it is.

Biscuits.—The total value of plain and fancy biscuits imported in 1884 was £1,000, so that it may fairly be said we make our own biscuits. We also exported, during the same-year, five thousand pounds' worth, chiefly to Fiji and South Sea Islands.

Beer.—We ought to do a larger export trade in beer than we do; the climate and water of the colony is specially favourable to brewing, and our brewers can turn out an article equal to any beer in the world. That they do not do so always, but rather turn their attention to brewing cheap "swipes," is the fault of the conditions under which they brew. In 1884 we exported 5,349 gallons of colonial draught ale, worth £535, and a very small quantity of bottled beer. In that year we imported bottled beer to the value of £80,715, at a duty of 1s. 6d. per gallon, and beer in bulk to the value of £4,701, at a duty of 1s. 3d. per gallon. The duty on colonial beer is 3d. per gallon. Surely this must be an exception to what protective duties would do. Yet the duty is not looked upon by the Customs as a protective duty; for, if it had a prohibitive effect, it would either have to be reduced for fiscal purposes, or a corresponding increase placed upon colonial beer. There are 100 breweries and thirty-four separate malt-houses in the colony, employing about six hundred men) and producing five million gallons of beer annually. The hop-growing industry is chiefly centred in Nelson and Marlborough, and a goodly quantity is grown—how much exactly it is impossible to say, but the value of the hops imported in 1884 was £5,081; in the year before it was £18,138, a very satisfactory decrease. We exported in 1883 3,985cwt. of hops, worth £62,861; in 1882, 704cwt., worth £11,049.

Confectionery is largely made in the colony, and fully two-thirds of the total consumed may be said to be of colonial manufacture: In ten years the import of confectionery decreased from £19,178 to £10,190; and this in the face of a largely-increased population, and without the slightest ground for supposing that the "sweet-tooth" of childhood, and of many grown persons, has lost its keenness. In 1844 the value of confectionery imported was £9,845, against £10,190 for 1883. The duty is 15 per cent, *ad valorem*.

Jam is now being made extensively in the colony, of good quality, though some manufacturers are accused of mixing pumpkin, turnip, and melons with their jam. Certainly jam made in a certain part of New Zealand, and much advertised, is a very tasteless compound. Considering the splendid fruit which can be grown in the colony, especially in the North, it is strange that fruit-preserving has not taken a more prominent place. Hobart Town jam has a good reputation in all the colonies, and a large quantity is imported from there: half the quantity which comes is from the United Kingdom. The value of jam imported last year was £10,552, of which £6,094 came from the United Kingdom and £3,409 from Tasmania. In 1883 the value imported altogether was

£22,923, which tells a favourable story of the development of the manufacture within the colony. The duty is 1½d. per lb.

Fruits.—Fruit-growing is an industry for which New Zealand is said to be singularly well adapted. Peaches, apricots, nectarines, plums, melons, and grapes grow luxuriously in the North Island; while apples, pears, and other fruit thrive especially well in the Southern. Yet the retail price of fruit is ridiculously high, and can only be accounted for by the high price of labour, and the demand for a large profit on the part of the retailer. All the reports seem to agree that fruit-growing should prove highly remunerative; and all have to impliedly admit that so far it is not on a satisfactory footing. What is required is systematic cultivation, and proper business arrangements for the disposal of the produce. An irregular supply can never command a profitable market, and a few failures discourage the grower. Fresh fruit preserving, especially peaches, by means of sealed cans, has been established at the Thames; but the article produced cannot yet be said to vie with that of such Californian firms as Cutting and Co., consequently it does not command the same price in the market.

In *Aërated Waters* and *Cordials* a large manufacture goes on within the colony, there being seventy-nine factories, employing 228 hands, with an invested capital of £66,900, and making about 650,000 dozen of the various drinks coming under the head of aerated waters and cordials. The value of the aerated water imported in 1884 was £2,481. There is no duty, presumably, because the import is chiefly made for the sake of the bottles, which are retained and used by our manufacturers.

Linseed, Rape, Canary, and other Oil-producing Seeds.—The growth of linseed would be of great value, and bonuses have been offered for the manufacture of linseed oil. It should be a very remunerative crop, as it takes less time from seed-time to harvest than almost any other crop, and will grow thirty bushels to the acre, on well-farmed land. Its price in London varies from £2 16s. to £3 2s. per quarter, and it is principally imported from Russia. The development of linseed cultivation would lead to the establishment of mills for the production of oil and the manufacture of paint and other oils, of which an enormous value is annually imported. In 1884 143,989 gallons of linseed oil, worth £16,869, was imported.

Paints.—A great manufacture of paints is possible to the colony. New Zealand is rich in such requisites as manganese, hematite, copper, ochres, silicates, and kauri gum. Hematite is manufactured at the Thames and Nelson; and is largely used. Our kauri gum comes back to us in the shape of varnish, and might be made at home.

Mimosa Bark.—This is imported largely into the colony, although it could be grown here upon any ordinary soil. There is an unlimited demand for the article in Europe, and the price is increasing. In Victoria mimosa plantations yield a net return of £4 to £5 an acre. The best kinds to grow are the *Acacia decurrens*, the *Acacia pycnantha*, and the *Acacia saligna*. A valuable gum, which has become an article of export from Australia, is obtained from these trees.

Quinine can be grown in open fern-tree gullies to the north of the Auckland Isthmus; and large returns might be looked for from a systematic and careful cultivation of this valuable medicinal plant.

Opium could be grown with profit, and in Victoria careless cultivation has resulted in a profit of £30 an acre. The kinds recommended for this colony are *Papaver somnifera* and *Alpha glabratum*. On ordinary soils the plant is of very easy cultivation. It 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. This is the whole process for preparing the product for market. The Indian exports of opium alone are valued at £13,500,000. The value of Chinese-grown opium is fully equal to that of Indian.

Common Hemlock—Digitalis (Foxglove).—These plants are naturalized in New Zealand, and could be grown as articles of commerce.

Carroway.—This could be easily grown here. It is used in considerable quantities. The same culture that suits common parsley would suffice for the carroway.

Santonine (Worm Medicine), Henbane, Belladonna, Camphor, Laurel and Sassafras Laurel, Liquorice, and Saffron.—These could be all grown and manufactured in the colony. Henbane and belladonna were introduced into Auckland some years ago, and did very well in the gardens. They are of easy culture, especially henbane, as it might be grown by the acre more easily than turnips. The leaves, stems, and seeds of the plant are used. Liquorice is cultivated in Nelson to a small extent. It belongs to the pea family: its cultivation is simple: the root is the portion used. Spanish liquorice is simply the inspissated sap of the root.

Perfumes could be produced from flowers with great advantage, the Oamaru district being admirably suited for the growth of perfume flowers which are not affected by frosts, such as lavender. I understand that the perfumes exhibited by Messrs. Mason, of Auckland, and which make an elegant appearance, are manufactured from perfumes imported in fat, and distilled in Auckland.

Peruvian Baric (Cinchona Officinalis) could be cultivated in parts of the Auckland Province, and should

prove highly remunerative. Some very valuable papers have been written by Mr. Thomas Kirk, F.L.S., on this subject, and on the economic plants which might be cultivated in this colony, from which I have drawn information. Mr. Kirk gives a considerable list of drug-yielding plants suitable for local cultivation, the perusal of which would afford valuable hints to those desiring to add to their profitable crops.

Wattle Bark might be produced with profit in this colony. The wattle flourishes on poor land, and might be grown extensively. The age at which the trees may be stripped with the best advantage has been determined at from five to ten years. The three species from which the bark is derived are the *Acacia pycnantha*, or the broad-leaf golden-and-green wattle; the *Acacia decurrens*, or black wattle; and the *Acacia dealbata*, or silver wattle. The first-named is superior to any other, but is smaller and of slower growth than the black and silver species. The silver wattle is not used generally for tanning purposes. The black wattle is of vigorous, robust habit, and for commercial purposes is equal to the broad-leaf. The wood of the wattle is of considerable value for cask-staves, axle-spokes, axe-and pick-handles, and many other articles requiring wood of tough, durable grain. It makes the best firewood for ovens and furnaces. It is also good for fencing-rails. A good profit may also be derived from the sale of the gum which exudes from the trees. The seed can be purchased at 10s. per lb. On loose, sandy soil it can be sown broadcast; on hard soils a plough-furrow should be made, at intervals of 5ft. to 6ft.

Cement.—In 1884 we imported 68,510 barrels of cement, worth £38,708, with a duty of 1s. per barrel. In 1882 the value was £68,837, not including damaged cement, on which no duty was paid. There is a satisfactory decrease in these figures, and points to the use of Mahurangi lime and other equivalents for Portland cement. Messrs. Wilson and Co., of Mahurangi, have now eighteen kilns at work, and are able to turn out 300,000 bushels per annum. They say the supply of raw material is unlimited, and the works can be increased to any extent required, and that they ask no bonus, no protection; but simply that the Government will give them some practical assistance by using their lime in all public works for which it may be adapted. It is now admitted on Government works, and is used extensively by private firms. There seems to be good ground for saying that there are large deposits of limestone throughout the colony. On the west coast of the Middle Island it is found very extensively, though not of first-class quality. At Timaru, Oxford, Selwyn, Dunedin, Thames, and other places limestone and chalk are found, and on a small scale lime-burning goes on. So far, the Mahurangi ground hydraulic lime is almost the only Colonial lime fairly in the market, except that which is locally produced for local consumption.

Fungus.—This curious article of export deserves passing notice. The export has risen from fifty-eight tons, value £1,927, in 1872, to 400 tons, value £18,939, in 1882. The whole supply is sent to China by way of the Hawaiian Islands or San Francisco. Only one kind is used—namely, that known as *Himeola polytricha*, easily distinguished from other fungi by its greyish colour outside and reddish-brown interior when dried.

Rabbit-skins.—One of the greatest pests known in the colony—the rabbits—produce an article of export which deserves a place in our list. In 1882 the value of rabbit-skins exported by us was £88,725. Granted that the colony would willingly be without a single rabbit, these figures mean employment for many men. In 1883 the value was £100,955; in 1881 it was £107,514.

Pottery, Earthenware, Patent Bricks, Tiles, Drain-pipes, Firebricks.—This industry is well-established, and the exhibits in this department at the Exhibition were among the most interesting. Considerable artistic taste has already been shown, but improvement in this respect can be almost boundless. Filters, ornamental jars, tea-pots, flower-pots, cisterns, and mosaic tiles are all exhibited, besides abundance of drain-pipes and coarser wares. Considering the heavy freight on these goods, and the danger of breakage in transit, the colony ought to produce all its own earthenware. Until my visit to the Exhibition I had no knowledge that such things were to be procured of colonial manufacture, and I have no doubt many others were equally ignorant.

The workings in metal were especially noticeable, Messrs. A. and J. Burt's and Messrs. Scott Brothers' exhibits being most attractive. There is a good trade being done now in iron and brass workings, as well as in machinery generally; and in all the large cities there are foundries which reflect credit upon the owners, and are rapidly expanding with an increasing trade. But the complaint is general that the Government railway workshops compete unfairly with private enterprise.

Carriage-making appears to be making good head-way; and, with improved roads and increasing wealth and business development, the trade in carriage-making should prosper exceedingly. The specimens at the Exhibition seemed to be admirable examples of the carriage-builder's art. Wagonette, sulky, spring-trap, and double and single buggy were really equal to anything I have seen in the same lines. Whether the price was also able to compete with foreign makers I was unable learn. Why railway carriages should not be now constructed in the colony is a question which I hope will be answered by encouraging the manufacture of them, here at once.

Paper-making has been established, and rough papers are exhibited. The total value of paper imported was £112,000. Of course much of this will continue to be imported for a long while; but there is printing paper

imported to the value of £63,000 which might well be made in the colony, although the fact of its being admitted duty free will militate against the colonial industry being successfully carried on.

Glass.—Two or three glassworks are already established, and make bottles, lamp-glasses, chimneys, &c. The raw material for glass-making abounds, but it has, so far, been found more profitable to collect broken glass for re-smelting. I did not notice any exhibit of glass at the Exhibition, but a company has recently been started at Kaiapoi for the manufacture of glass. The import of glass for 1884 is as under: Bottles, £7,020; plate, £5,268; window, £14,204; glassware, £13,203.

Marble, Slate.—Marble is shown at the Exhibition from Caswell Sound Quarry; and, though it cannot be said to be as fine as Parian, it seems a fairly marketable commodity. Considerable expense has been gone to by the company, and it is to be hoped that the trade will develop into a large and successful one. Slate is to be found in the Kakanui Range, but I am not aware that it has yet been utilized, nor what prospects there are of successfully producing roofing-slates within the colony.

Iron.—So far iron smelting has not been successful, though large sums have been spent, and vast deposits of iron ores exist in the colony. There are very extensive works at Onehunga, but it is too soon to speak positively about them. A large quantity of hematite paint is manufactured from the Parapara hematite ore, and is the most approved paint for covering iron buildings with.

Petroleum.—There seems to be good hope that, before long, this most useful article will be found in payable quantities. In Gisborne works have been going steadily on for a long time; and, though so far no signal success has been met with, there still appears to be good prospect of the shareholders "striking ile" to their own and the colony's advantage.

Lengthy as is the list given and treated of above, it does not cover nearly all the ground that might be gone over, as will be seen on reference to the catalogue on the following pages. Taken together the pages written should serve to show the multiplicity of the industries which are already started and doing fairly well, and only require wholesome support and encouragement to further develop themselves. If the result of the Exhibition and this contest of essays incites to a study of the question of our industries generally, and to a strong desire to further them by using our own productions as much as possible, a great end will have been achieved and great good must result.

Some noticeable branches of colonial manufactures, well established, and easily procurable in the colony by those who know where to send for the article required—taken from inspection at the Exhibition, and notes made thereat: Woodware of all kinds, wickerware, turnery; wooden pipes, holders, &c.; confectioners' and carvers' and gilders' moulds; veneers, coopers' ware, billiard balls; medicines, and druggists' goods; pottery—ornamental and otherwise, coal; brasswork and ironwork, preserved meat, tallow, neatsfoot oil and trotter oil, lime; soap—common and toilet; candles and oil-cake, blacking, hematite paint, glue, leather of all kinds, bonedust and artificial manures, barbed wire and fixings, farm implements generally of all kinds, cooking-ranges and stoves, steam-engines and pumps; tin-, galvanized, and japanned ware; safes, machine tools, furniture of all kinds, bookbinding and engraving, lithography, wrapping paper, cardboard boxes, violin strings, carriages, buggies, carts, sulky, &c., harness and leather-work, bricks, lime, cement, rope and cordage, woollen fabrics of all kinds, yarns, boots and shoes, wigs, clothing, taxidermists' goods, jewellery; flour, oatmeal, barley, peas, seeds, and cereals; malt, hops, ham and bacon, biscuits, confectionery; preserved fish, soup, and meats; preserved fruits and jams; sauces, aerated waters, beer, coffee, and spices.

INDUSTRIES GENERALLY.

In an address to the New Zealand Manufacturers Association the lecturer points out that, taking our imports roughly at six millions, one and a half millions is for articles which could be produced in New Zealand by merely extending the industries already in existence—that is, for articles which we make ourselves, but do not make enough of; one and a half millions is for articles that could readily be produced by establishing new industries the conditions for which are favourable; one million for articles that could be produced when the resources of the colony are fully developed; and two millions for the products of tropical countries, and manufactures, which there is no chance of superseding by local supplies. It is thus possible to produce and make three-fourths of the goods we buy from other countries. Now, if the people of the colony were fully employed as it is, it would be plain that no anxiety need be felt because of this neglect to produce all we might; it would be merely proof that we were otherwise so profitably engaged that we had not time to grow these things for ourselves, and could, with less labour than it takes to produce them, produce other articles which, being intrinsically more valuable, will more than pay for them—just as a skilled labourer or professional man can by his earnings command the labour of several or perhaps many other lesser skilled men. But, unfortunately, we are not all so profitably employed: there is distress among agriculturists, palpably because they are not growing that which will pay them best; there is dullness in building, because unless there is

constant progress in trade building naturally languishes. Manufactures make cities, wool and corn make lords and labourers. Much as we love our Mother-country, we are not to take for gospel all her doctrines of free-trade and open ports. "Grow wool, grain, and meat for us, and we will send you our manufactures in return \ " they cry, in a burst of patriotic and liberal generosity. What could be a fairer exchange than this? But we say, " No, though the higher aim may be more difficult at first, and may not be so clear in Cobden-like logic, we prefer the task of creating a compact nation in ourselves, a heterogeneous whole, which will have a more glorious and in the end more protecting influence than the arcadian simplicity you so strongly recommend." The discussion on federation has done much to open our eyes to our real position among the colonies, and to the really good work that has been done amongst us, and the openings already made in various industries; but, above all, to the natural advantages we possess from our insular position; and how, if we only push on, we shall be able to carry trade ahead of other colonies or nations, not by unfairly driving them out of what legitimately belongs to them, but by simply appropriating to ourselves that work which we can best do, leaving to others that which is best suited to them. In all history, has there ever been a great undertaking carried through without some checks or disasters at first? Britons are notorious for requiring a reverse to stimulate them to victory, and refuse to know when they ought to acknowledge a defeat, and so turn many a disaster into a success. The saddest of all sights has been when Britons have divided among themselves in face of a rival or foe; and this was conspicuously the case when the Auckland merchants were competing for the island trade against the German connection. Combination amongst themselves would have carried them through easily; but local rivalries prevented this occurring: and, though satisfactory progress is being made in this trade, the struggle for supremacy is prolonged, when it might have been over and the game in our own hands. Many of our industries are now being worked by joint-stock companies satisfactorily; but the institution of a joint stock company is always a delicate operation: if any icy breath comes upon it when in swaddling clothes it is either killed or rendered sickly, and will have from the beginning the seeds of decline in its constitution. If the fates are propitious it has to meet, then, the attacks of the speculator, the fluctuations of the market, the criticisms of the public, or, perhaps more fatal than all, the overwhelming confidence of the public in sending its shares to a premium, then the risks of inferior management, the changes of management, until at last it either succumbs, or else grows so strong as to resist all such attacks, to become a great institution, wielding perhaps political power, or, what is in the end much the same thing, believed to wield political power, with only wealthy men on its proprietary, and consequently no longer in any true sense a co-operative association, making it a still harder task for the next company in the same line to blossom into life and arrive at maturity.

On the other hand the private manufacturer has to contend against insufficiency of capital, trade jealousy, and, above these, with the difficulty of getting his goods into the market. A general trader finds it inconvenient to trade with Auckland for sugar, cement, or hardware, with Dunedin for woollen fabrics, with Wellington for preserved meat; and still more inconvenient to deal with A, a small maker of tinware; B, a small brush-maker; and soon. The temptation is to give as large a general order as possible to the representative of an importing house, who can supply many hundred different lines on one invoice. For instance, a man would be likely to buy Portland cement from a local merchant, rather than incur the delay of sending for Mahurangi lime; but if there was a local agent for the lime he might exercise a free choice. The New Zealand Clothing Factory are setting the example of opening retail shops for the sale of their goods in almost every town in the colony, and success appears to be attending the experiment. Should the woollen factories do likewise a great step will be obtained. As communication becomes more and more cheap, regular, and expeditious, so will interprovincial trade increase; and the admirably-conducted weekly journals published in the chief towns are doing much to promote interchange in trade, and to encourage and foster the development of colonial industry, and nearly every week there appears the material for a prize essay on one or more branches of the subject. What they are unable, however, to do is to find the capital for the manufacturer or the roads for the agriculturist: the first must be found by combination, the second by the Government of the country.

EDUCATION.

We are now spending half a million a year on education, and he is a bold politician who would dare to advocate a reduction. This is the one sure and certain thing the working-classes have in return for their taxation; and how they value it may be tested by proposing a reduction of the vote. "Education—free, secular, and compulsory" is the system which, after many a fierce conflict, has obtained the support of the many. That some of our fellow-colonists are conscientious enough to refuse to avail themselves of State education, on religious grounds is no objection to the system, though it does credit to those who are willing to pay twice in order to avoid a compromise with their religious convictions. We are training up a generation of thinkers, and we may be certain that a large percentage will be able to show that the opportunities afforded have enabled their natural ability to shine out beyond their fellows. This universal education will undoubtedly tend to make mere

unskilled labour scarce; for it must be the veriest dullard in the school- class who will be content with a labourer's lot. Here, then, is another reason for providing industries requiring intelligence, if we wish to keep our youths in the colony. The industrial exhibition has shown admirable examples of inventive and mechanical skill among our young people, and this should be encouraged in every possible way, so that we may rival the unique faculty of the Americans for labour-saving inventions. I do not pretend that America can claim the palm for scientific discovery or invention, or for artistic skill; but for mechanical appliances, for neatness of workmanship, for elegance in common working tools she has shown the way to all others. And what are the characteristics that have tended to produce this? General education, quickness of perception, the apprehension of the situation that, where labour is dear, the most that can be got from an implement is the thing to be desired; and the result is that, in tools and implements, the American models stand as things of beauty alongside the uncouth British articles with which people have been content for generations. It is true the British manufacturer has not been slow in noticing and copying what his American competitor has done, but the credit belongs to the Yankee.

This, then, is the function of education—to diffuse cultivated intelligence among the masses, so that genius, wherever found, may have its fair chance. The present system may be supplemented more than it is, by instruction in the principles of mechanics and physics, and by paying particular attention to directing the pupils' minds to the study of what has been done before in the way of inventions, arts, and industries; by demanding higher and higher qualifications for the teachers: until the industry of education—which is already highly remunerated in comparison to what it was a few years ago—shall rank among the most elevated occupations in the land.

That nation is in no danger of falling to the rearward which is constantly examining itself, and comparing its progress with that of others. A nation of grumblers is generally a nation of progress. We grumble, but we also exult. "Well, what do you think of the Exhibition?" said I to a friend. "I am proud," said he, "to belong to a colony that can produce such a display of its own industry." The remark was not, perhaps, original—I had heard something like it a good many times;—so much the better. The more that feeling is diffused the nearer has the attainment of the object of the Exhibition been achieved. Let it be known that three years hence a still grander Exhibition will be held, and if the colony paid the whole expenses it would have a good bargain in the result. The credit gained now by our youths will incite scores of others to work and to give their wits fair play. The knowledge of what can be done in the colony will secure customers by the hundred to our manufacturers—a livelier feeling of what is due by ourselves to ourselves will be, as it has been already, engendered. The present enterprise excites more national feeling than previous Exhibitions, especially more than those adventured by private speculators—though all thanks to those private persons who taught us a practical lesson in the art of Exhibition-holding! The profit to exhibitors is not so direct as where they can sell their goods while on exhibit, but it is none the less sure. We shall be none the more inclined to put up with poor work because it is colonial, but we shall more eagerly seek for excellence in the colony, and gladly be consumers of colonial products in preference to those imported but which possess a greater intrinsic merit.

A humble suggestion may here be made that a complete catalogue should be printed in large quantities, showing the exhibits, and the judgment passed upon them, the names of exhibitors, and their addresses; and that these catalogues should be distributed throughout the colony, and circulated as largely as possible. This would enable the good effect of the Exhibition to be sustained as long as possible, and probably it would then endure until the time came round for another gathering together of industries. The catalogue should be bound as serviceably as circumstances permitted, and a price fixed which, while securing the Committee from loss, should be low enough to secure a wide demand. Thousands who have been unable to leave their homes would gladly purchase these catalogues, and would avail themselves of the information afforded to aid as far as they could New Zealand industries by purchasing within the colony. People will not buy inferior articles at a high price because they are colonial; but, all other things being equal, I have still faith enough in my fellow-colonists to believe that they will give their own country the preference.

CONCLUSION.

I part with this essay with reluctance, conscious of many defects, and feeling how much better it might have been, considering the greatness of the subject. It is, however, some satisfaction to find, in looking over the pages written, and comparing them with the remarks of His Excellency the Governor at the closing of the Exhibition, that the same idea is conveyed throughout—namely, that not in sudden, desperate efforts to achieve a position as a great manufacturing country, but rather in a constant pressing onward, is the desired end to be achieved; and that the retrospect of the last twenty years gives us the greatest possible encouragement for the future.

Let us, then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labour and to wait.

Exports, the Produce of New Zealand. Gold. Wool. Flax (Phormium). Gum (Kauri). Wheat, Provisions, Tallow, Timber, &c. Exports, the Produce of New Zealand. Imports.

British and Foreign Vessels Entered and Cleared.

Return showing the Number, Tonnage, and Crews of Vessels entered and cleared at New Zealand Ports during the Year 1884 Entered. Nationality of Vessels. With Cargoes. In Ballast. Totals. Totals for 1883.

Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
British	749										
480,181	18,698	50	12,881	481	799	493,062	19,179	727	435,037	16,173	
Foreign	52		36,041	1,531	1 85	7 53					
30,126	1,538	78	59,889	2,212	Totals ..	801	516,222	20,229	51	12,900	488 852
529,188	20,717	805	494,926	18,385	Cleared British	721	456,464	18,051	92	40,594	1,006
813	497,058	19,117	770	445,827	16,070						
Foreign	44	30,065	1,408	15	7,119	152	59	37,184	1,020	81	61,738
2,221	Totals ..	765	486,529	19,519	107						
47,713	1,218	872	534,242	20,737	851	507,565	18,291				

The Present Condition and Future Prospects of the Industrial Resources of New Zealand, and the Best Means of Fostering their Development.

An Essay; by George Robert Hart.
"Nunquam dormio."

IN dealing with the subject selected for the essay I take it that the condition relative to the present position of the industrial resources of the colony means that a brief review of the point at which the various principal industries of New Zealand have arrived—as evidenced by the late Exhibition—will be considered sufficient. At any rate, I purpose dealing with it in this way, as I feel that the matter of fostering the local industries now at work, and of encouraging those which may hereafter be developed, is by far the most important branch of the subject to which the essayist can direct his attention in the hope that good may result therefrom.

Viewed in this light, I will first refer to what cannot but be regarded as the most important of all our industries—namely, the conversion of the raw material of wool into the manufactured articles. No doubt the mineral resources of the country, and the manufactures arising therefrom, must be regarded as very important factors in the sum of prosperity of the colony; but still they are subsidiary to a large extent to that industry which profitably absorbs so large a proportion of our chief staple product.

Beginning in but a small way, the woollen factories of Kaiapoi, Mosgiel, and Roslyn have placed the industry to which I am referring on almost the highest pinnacle of success. They have not only opened up new avenues of employment for large numbers of our people, mainly amongst those for whom it is always difficult to obtain work—namely, our young people, but they have also created what is most important to the interests of the colony as a whole—a local market, and demand for the wool grown here. Prior to the establishment of these factories the wool-grower had no other market for his produce but the Home one, and thus the amount received in payment for his wool was depreciated by the charges which he had to pay, and the fluctuations of a market over which, to a large extent, he had no control; besides which the expending power of the principal portion of our producing population was curtailed by so much. Now this is altered, and the result is due to the growth of the industry under notice. The wool-grower now finds that he has a local market open to him, capable of absorbing a fairly-appreciable quantity of the raw material; and he can obtain a full price for his wool without incurring the various charges for freight, insurance, &c., or the risk and delay of a long sea-voyage.

With regard to the manufactured article produced by the woollen companies, what I take to be the greatest test of the present good position of the industry is the fact that not only have they succeeded in almost entirely superseding the imported article in the colony itself, but that a large and increasing trade has sprung up in

Australia for the products of the looms at Kaiapoi and elsewhere. One branch of manufacture in which, of late years, great advances have been made by our local woollen factories has been that of ready-made clothing. This has developed into a most important item in the work of all the factories; indeed it may be said that it now forms the most important branch of local industry comprised under the head of "Woollen Manufactures." In the production of blankets, also, the factories have made marked progress; so much so that their products are now inquired after all over the Australasian Colonies, in preference to those manufactured in England or elsewhere.

Let me here briefly, and without going into statistics too deeply, trace the rise and progress of one of these factories—namely, that of the Kaiapoi Woollen Company. I select this one, not from any desire to make invidious comparisons, but because I can the more readily refer to the facts and figures, and also as the progress of this factory is typical of that of the other two in the southern part of the colony. The comparison of what was with what is, as having reference to the Kaiapoi Woollen Factory, will enable a more satisfactory estimate to be arrived at as to the present position of this important industry than would otherwise be the case. Starting, in 1875, with a capital of £20,000, the career of the company was commenced under very favourable auspices, the bonus of £2,000 offered by the Provincial Government for the encouragement of the woollen industry being gained by it. Difficulties, however, were experienced, as in the early days of all industries, and in 1877 the whole concern was sold for £7,000. In July, 1878, the present company was formed, with a capital of £15,000, of which the extension of operations has necessitated the increase to £100,000. Since then its career has been most prosperous, as is shown by the fact that, after paying in one year no less a sum than £30,000 for land, plant, and buildings, the company were enabled to declare a dividend of 10 per cent, and carry forward a substantial sum. As to the extent of the trade done, it may be gathered from the fact that about 8,000lb. of washed wool, equal to 16,000lb. of greasy, passes through the carding-room every week. At the works at Kaiapoi 240 hands are regularly employed; whilst at the clothing factory in Christchurch some 170 more are engaged, the latter being, principally women and girls. Almost every description of woollen goods, from the coarsest to the finest, is produced in the mills; and many other industries are dependent upon or have been stimulated by this one.

Thus, I take it, the colony can be fairly congratulated upon the progress made by its chief industry. All who saw the magnificent display made at the Wellington Exhibition by the three principal factories to which reference has been made will, I am sure, agree with me in awarding the palm for importance to the woollen industries of New Zealand. Given the conditions to which I will refer later on, and the future prospects of our woollen industries must be such as to exercise a very important influence on the future prosperity of the colony as a whole.

Next in order I come to the metal industries, and here again we have cause to indulge in what Mr. Anthony Trollope designated as the colonial habit of "blowing." The present position of this industry is an exceedingly satisfactory one. We have seen that a colonial firm has been enabled to undertake to supply locomotives for the Government railways, and that in another part of the colony iron ship-building has been carried out most creditably alike to the colony and the firm undertaking the work. The exhibit of the Public Works Department in the Wellington Exhibition has shown to those who have inspected it that our workers in metals in the colony have been able to construct work in connection with the opening-up of the country which would not disgrace the Old Country. Reference may be made, in illustration of this, to the Rakaia Gorge Bridge, the Wingatui Viaduct, and other works which have been carried out under the supervision of the Public Works Department. Viewed as typical exhibits of the metal industries of the colony, those sent to the Wellington Exhibition by Messrs. Scott Bros., of Christchurch, and Messrs. A. and T. Burt, of Dunedin, are such as no country need be ashamed of. Such work as this shows far more emphatically than I could demonstrate in a dozen pages of manuscript what progress has been made in the past in reference to this industry, and what great results we may look for hereafter in the light of the experience which we have gained. Nearly every article exhibited by these two firms—and, as I have said, I only select them as being typical of others existing in the colony—would, some few years back, have had to be imported. In finish of the more artistic or luxurious kind of work and general completeness our colonial products under this head will fairly bear comparison with the manufactures of the older centres of industry in England. If this be so—and there can be but little doubt on the subject—then I think it may fairly be assumed that the second of our principal industries must be taken to have achieved success, and to be progressing onward satisfactorily.

In an important branch of this industry the advance made in an almost incredibly short period has been most marked. I refer to the production of agricultural implements, an industry which is daily assuming very large proportions amongst us, particularly in the southern part of New Zealand. It is not so many years ago since a colonial plough, or indeed any agricultural implement of importance, was almost unknown, or at any rate unused, amongst the farmers of the colony. With that true British conservatism which it is almost impossible to uproot from the minds of the people, the agriculturists of that period still clung with unflinching tenacity to the unwieldy ploughs and harrows of their native land. The infant industry had thus, as might be

expected under the circumstances, a very hard struggle; but then the victory which has been gained since has been all the more glorious. Now the good old-fashioned imported implements are conspicuous by their absence from nearly every farm in the country, and they have been replaced, to the advantage of the farmers, by the manufactures of such colonial firms of implement makers as Messrs. Reid and Gray, P. and D. Duncan, Booth and Macdonald, Andrews and Beaven, and others.

But it is not alone in the production of what I may term the more common class of implements—those, I mean, in everyday use—that our colonial manufacturers have beaten the imported article. In the higher branches of the production of agricultural machinery they are rapidly invading the territory at one time exclusively occupied by the Home firms, and gradually but surely forcing them out of the market. This is the more noticeable in the production by a colonial firm—Messrs. Reid and Gray, of Dunedin—of a reaper and binder which has worthily held its own in the trials made as against those manufactured in America and elsewhere. The impetus which would be given to the local industry of the iron trade by the coming into extensive use amongst our farmers of the colonially-made reapers and binders in place of the imported it is almost impossible to over-estimate; and, what is of still greater importance, a very large sum of money which now annually finds its way from the colonies to America would be retained here and spent within our own borders.

Thus it appears to me that the present position of the second of our staple local industries, though not what it ultimately must become, is yet exceedingly satisfactory from two points of view—(1.) That the growth of the industry in our midst has provided employment for a large class of the community, and must, from the large field for expansion which is before it, be the means in the future of affording still greater facilities for the employment of labour. (2.) That it encourages the settlement and cultivation of the country by affording the agriculturist possessing only a small capital the opportunity of acquiring the requisite implements, &c., at the cheapest rate, and on the most favourable terms. As to the future of this very important industry, there can be no doubt of it being a bright, and hopeful one.

The action taken by the Government with reference to the more complete opening up and utilization of the vast coal deposits on the west coast of the Middle Island by the improvement of the harbours will have a very great effect upon the future of all local industries connected with the working of metals, and, indeed, all industries of whatever kind, because there is no department of human industry into which the use of coal as a means of manufacture does not enter either in a direct or indirect degree.

The industries which provide for the utilization of our timber resources properly claim attention next, and it is most satisfactory to be able to record that much progress has been made therein." It is true that the vandalism which has been used for the fire and the commoner purposes of station requirements the finest woods, perhaps, in the world for furniture and ornamental purposes has to a very large extent decimated our forests; but the growth amongst us of industries which encourage the use of our local timbers in the construction of the more elaborate and ornamental articles of furniture has put a stop to this practice. The exhibits at the Wellington Exhibition of furniture and woodwork from various parts of the colony, and more especially the comprehensive exhibit of the Dunedin Woodware Company, showed conclusively that our woods are well adapted for the manufacture of the more luxurious articles of household furnishing and adornment, as well as those in daily use. The whole collection of exhibits at Wellington under the head of woodware proved that great progress has been made in this as well as the other departments of local industry which I have passed under review. The importation of furniture from England, which at one time used to be largely carried on, has now all but ceased, the only exception being some stray consignments which now and again find their way to the colony, but which, from the unremunerative nature of the returns, and the advance made by the local industry, will no doubt ere long cease altogether. This industry, from the very nature of things, is bound to make great strides in the future.

With the institution of the direct steam service a new class of addition to our population has come amongst us. The class of assisted or free immigrants, who landed with just enough money to pay a few weeks' rent until work was obtained, and in some cases not even possessing that small amount of capital to start with, has disappeared, and instead we are receiving as accessions to our numbers persons who possess a moderate amount of capital, and who are able and willing to expend some portion of it in making their new homes attractive and comfortable. The advent of this class must have the effect of stimulating to a very great extent the development of the industry of which I have been speaking, and this development in its turn will re-act on the general prosperity by the increased labour which will be absorbed, and the consequent addition to the spending power of the community.

The leather and boot-manufacturing industry, from the great progress made by it, naturally claims some degree of attention. The development in this industry has been remarkably rapid, and large factories, employing an immense number of hands, have sprung up like magic in the various centres of population. The experiments which are in course of progress to test the suitability of some of the barks of our native trees for tanning purposes will, if successful, be the means of introducing a new branch of industry in connection with this one.

As to the manufactured article, the display made at the recent Exhibition by Messrs. Lightband, Allan, and Co., the Northern Boot Factory, and others, most emphatically shows that in this as well as in other departments our local industries can well hold their own. The future of the industry under notice cannot but be a most important one, as it supplies all our present wants, and one which grows with the population. If the experiments alluded to are found to answer, then a great reduction in the cost of production of leather will be effected, and a consequent lower price to the purchaser of the manufactured article will no doubt follow. Whilst on the subject of leather, it may be noted that a new industry has been developed recently in connection therewith. I allude to the production, for the first time in the colony, at the factory of Messrs. Bowron Bros., of Canterbury, of high-class furniture and book-binding leathers. The finish of these is equal to anything that can be imported, and the further development of this branch of manufacture cannot but have a very important bearing on the future prospects of the leather industry as a whole.

I now come to an industry which is of immense importance to the welfare of the community at large, but in respect to which there is, I regret to say, not so much progress to note as with regard to others. I allude to the mining' industry. As I shall have to refer more particularly to this question when dealing with the best means of fostering and encouraging the development of our industrial resources, I will not do more than glance at the salient points which present themselves when considering the matter. It seems to me that the mining industry of the colony will, in the future, occupy somewhat the position of the ugly duck in Hans Christian Andersen's fairy story; and that, though we have treated it hitherto with a great deal of neglect, it will yet prove to be the means of largely increasing the prosperity of the colony. Let me here explain that by mining industry I do not mean the mere digging for gold, but rather the development of those vast stores of mineral wealth which are known to exist in various parts of the colony. It is true, as already noticed, that the Government have taken a most important step in the right direction by making such improvements in the coal harbours of the West Coast as will enable the coal deposits there to be utilized to their fullest extent. There can be no doubt that, when these works are completed, the export of coal from New Zealand will be largely increased. As a gas coal there are few to surpass it. This has been conclusively proved by a test recently instituted in comparison with New South Wales coal. The production of gas per ton of the New Zealand coal amounted to 11,928ft.; whilst the same quantity of New South Wales coal only produced 9,000ft. As a steam coal also it will compare favourably with the best Welsh. Thus it may be assumed that, so far as the production of coal is concerned, this branch of industry is making fair progress, and has before it an encouraging future. But when we turn our attention to the vast natural resources of the colony, comprising as they do every mineral known to science, in greater abundance than any other country in the world for its area, how little, comparatively speaking, has been done, or is in course of being done, towards their development and bringing into useful manufacture. Some efforts, it is true, have been made; but nothing of a thorough or complete kind. The result is that, in relation to one of the most important of all industries, we are sending money out of the colony for manufactures, when we have the raw material in abundance within our own borders only awaiting development. The future prospects of this industry are bright in the extreme, if only we initiate and carry out a vigorous and liberal policy of encouraging, by all means in our power, the development of the undoubtedly rich mineral resources of the colony.

Another industry which has grown up amongst us during the past few years is that of the export of frozen meat. The natural growth of our flocks pointed to the inevitable necessity, at no distant date, for the provision of a market beyond our local ones, and the discovery of the process now applied to the exportation of frozen mutton to England supplied the means to that end. The present condition of the industry, it is true, is not so bright as could be wished; but, though this is so, it has supplied a means for the disposal of our surplus stock which could not have been so profitably supplied by any other industry. Boiling-down or preserving would not have answered the purpose, neither would they have insured such good pecuniary returns to the flockowners of the colony. The future of the industry depends in a large measure on the colonists themselves. If the present method of shipment and distribution in England be continued then the flockowner cannot expect to see any improvement on present prices, nor will the demand increase, as it undoubtedly would if a different means were adopted of dealing with the carcasses after they reach their destination. To enable the meat to reach the thousands of consumers who will only be too glad to have the opportunity of purchasing it, shops for the sale of New Zealand meat and that alone will have to be established in the principal centres of population throughout the United Kingdom. These once established, with a kind of co-operative cold stores belonging to the New Zealand shippers, and working in concert with the shops, and the future success of this industry, which is destined to have a most important effect on the welfare of the colony, is assured. In considering this matter it must be remembered that it is one of colonial and not individual interest, because the success or failure of this industry means either, on the one hand, a large addition to our resources, a new market for our surplus produce, and an increase of our staple products, or, on the other, a compulsory reliance upon the two staples of wool and wheat-growing—a reliance which the experience of the past two or three years has shown to be without any very sure foundation. Therefore, though perhaps not strictly coming under the head of what are called popularly

local industries, the exportation of frozen meat—from the important part it is destined to play in the development of our industrial resources by adding to the general prosperity cannot be overlooked in an essay of this character.

I have dealt specifically with all the industries which seem to me to call for individual mention. Let me now briefly, before touching upon the subject of the best means of fostering the development of them, group together some which I think deserve at any rate a passing notice. One of these which has during the past made great progress, and to a large extent supplanted the imported article, is the candle and soap manufacturing industry. A means of judging of what has been done in regard to this industry was afforded by the exhibit of Messrs. Kitchen and Co. at the recent Exhibition at Wellington. Those who remember the very crude efforts which were made some years ago in the direction of supplying the market with a better class of candles, so as to do away with the necessity for sending so large a sum of money annually out of the colony for the imported article, will note what a stride has been made, to place the industry in the position in which it now is. The colonial manufacturer is able to turn out an article quite equal to the best, if not superior to some, of the second-class imported brands. All that is wanted to open up for this industry in the future a large and increasing field of operation is the dissipation from the minds of the people the absurd notion that because an article is colonially manufactured it must of necessity be of that description known as "cheap and nasty." The demand in both branches of this industry is exceedingly great, and once the colonial article can obtain a footing—as from its quality and price it is bound to do in the end—we may look for an extensive manufactory of these articles growing up in our midst.

Another industry which has up to the present achieved a very satisfactory position is that of the manufacture of pickles, jams, and preserves. So rapid has been the success attendant upon the establishment in various parts of the colony of local manufactories, that the importation of these articles may be said practically to have ceased. Only one obstacle at present seems to stand in the way of the growth of the industry to a magnitude yet undreamt of, and that is the difficulty of obtaining the raw material in the shape of vegetables and small fruits. It seems almost inconceivable, in a country like this, where every cottager possesses a piece of garden ground of more or less extent, even in close contiguity to our cities, that this difficulty should exist; but the fact remains that it does do so. Still, in spite of this drawback, the industry has made great strides, and the article produced will bear favourable comparison, alike in price and quality, with those imported. The present position of it is this, that it affords remunerative employment to a large number of persons; it has stimulated the bringing into work of a new industry in the shape of glass-making, and it will also be the means of inculcating on the small-cottager class habits of industry by offering a ready and remunerative market for the produce of their gardens. In the future, when these advantages come to be better understood and more fully recognized and taken advantage of by the people as a whole, there can be no doubt this will be a most important industry, and one which will have a very marked effect upon the mass of the people for good in the direction I have indicated.

The pottery and clay-goods industry is another in which marked progress has been made, and the position of which is now such as to cause a feeling of satisfaction. This result has been aided materially, I may note, by the well-timed liberality of the Minister for Public Works, who has reduced the rates of carriage on the lines between the potteries and the market. Nor alone has the industry achieved a good position as regards the commoner class of goods, such as drain-pipes, flower-pots, &c.; but in the more ornamental branches a marked degree of excellence is displayed. This is especially notable in the production recently by some of the colonial potteries of high-class plaques, suitable for artistic flower or figure-painting of the best description, and of which experts speak highly, as equal to any which could be produced by the artistic potteries at Home. The future of this industry, judging by the progress made in the past, is bound to be one to which we can look forward hopefully, the condition of success being that, in common with others, it receives, alike from the Government and the people, liberal encouragement and support.

Though perhaps not a local industry, yet one which will, I think, be of great value to the colony as a whole, I cannot pass over the apiarian industry, which has been so largely and successfully prosecuted in the northern part of the colony. Though only yet in its infancy, it is affording employment to a number of people, and also making remunerative use of land from which perhaps, except in this way, no return would be received. Though only a small item in the sum of our industrial resources, we cannot afford to despise even the day of small things, and I look forward with very great confidence to the apiaries of New Zealand in the future (though not rivalling the larger industries of woollen or iron manufacture) playing no inconsiderable part in the general prosperity of this young and vigorous nation.

A brief mention of one or two industries which have been recently started and I will close this part of my subject. An industry—the only one in the colonies, so far as I can learn—has been started in the Middle Island, which bids fair to be of very great importance, and which would, had it been longer established here, have claimed far more attention than being left so late in the day: I refer to the manufacture of carpets, which, in a small way, it is true, has recently been started by Mr. N. Mitchell, at Canterbury. 'Of the present position of this

addition to our industrial resources one can say but little, as it has not yet got out of its infancy. It may, however, be noted that the articles produced are of excellent quality, and that the patterns are both handsome and artistic. The demand at present, though fairly remunerative, is not by any means what it will be when the industry gets properly started. There is this about it, that it adds yet another to the list of those industries which will ultimately put an end to the necessity which now appears to exist, in some degree at least, for our sending our wool away in the raw state to be manufactured elsewhere, and returned to us at a high price in the shape of the manufactured articles. Further than this, it provides a means for the utilization of a great deal which, without the presence in our midst of this industry, would go to waste. As to its future prospects, those who have seen the effect which the establishment of the carpet industry has had upon certain cities in the Old Country, and the prosperity which has grown out of this trade alone in the localities where the production is carried on, will at once agree that, when it has passed through its present chrysalis stage, its future ought to be fraught with very important results to the colony as a whole. Another small industry, which, however, promises to enlarge at no distant date into an important branch of manufacture, is the brushware industry. This is now pretty extensively carried on both in the northern and southern portions of the colony, and, though not much has yet been done, there are hopes for it in the future. The latest phase of the development of our local resources is the project of Mr. Noble, of Timaru, to utilize wheat-straw for the manufacture of wrapping paper. A very good sample of tough paper has been produced, and, if it can be carried on at a reasonable cost, there should be a good market for the products of the factory when started. I can only refer by name to the older industries, such as the Auckland Tobacco Company, the various rope and twine manufactories, the carriage factories, &c. So that in nearly all departments of human industry our local manufacturers have established factories, &c.; and all that is needed to insure a successful future for them is the practical support both of the Government and the people of the colony as a whole.

I now come to what I consider the most important branch of the subject under consideration—namely, "The best means of fostering the development of the industrial resources of New Zealand." I think the methods by which we can best achieve this end may be placed under three heads—(1) The development, by means of roads, &c., of the large mineral resources of the colony; (2) the encouragement of local industries and productions by the imposition of such import duties on all those articles which can be manufactured in the colony as will afford aid to the local producers, and by a liberal application of the system of bonus for the starting of new industries; and (3) the education of the people by the encouragement of the formation of industrial associations in various parts of the colony, and the adoption of a liberal and generous policy by the Government towards them, so as to inculcate the necessity of a more extensive Use by the people of the products of the colony in all branches of human industry.

Dealing with the first of the three methods which I have indicated, the paramount importance of the vast deposits of mineral wealth which are known to exist in these Islands with regard to our local industries will at once be admitted. We possess all the metals used in manufactures within our own borders, and in abundance; but we have done little or nothing towards their development. Boards have been made and large sums of money expended in opening-up country for purely agricultural or pastoral purposes—both very desirable adjuncts to the settlement and development of the country; but where have we done anything practical towards bringing the vast stores of mineral wealth we possess nearer to the centres of population? Except in the one instance of the construction of harbours on the west coast of the Middle Island, little or nothing has been done. We have deposits of copper, of ironstone, and other valuable minerals lying practically untouched and undeveloped—a magnificent industry starving for the expenditure of a few thousand pounds in opening-up the country and making the regions where the minerals are known to exist accessible. Yet there is scarcely one of our local industries to which I have referred in the first part of this essay but would be benefited by the more thorough development of our mineral resources. In the one article of coal alone the benefit which would accrue to all industries from an increased supply being able to be obtained at a lower rate can scarcely be estimated. And so with reference to the other minerals which we possess. Their development would naturally lead to the establishment of manufactures for the conversion of the raw ore into the article of commerce. Factories would spring up on all sides, employing labour and, above all, turning to profitable use what is now lying useless in the earth. Other and kindred industries would be stimulated by the production locally of machinery and partially manufactured articles for ultimate conversion into the thousand forms used in trade, and thus a most important factor in the work of fostering and developing our industrial resources would be supplied, which is now all but totally absent. I say "all but totally absent," because some steps have been taken in the direction of the development of our coal industries.

What would result with regard to other minerals were a policy of development extended to them may be gathered by the consideration of the enormous impetus which the only partially-completed works on the West Coast have given to the coal trade—an impetus which will be as nothing compared with what will result when the full extent of the scheme of harbour improvement is carried into effect. Even now we are enabled to go into

the Australasian market and not only compete with the Newcastle coal, but realize an increased price per ton when compared therewith. As yet we have but a superficial knowledge of our mineral wealth; but that is sufficient to afford a very good basis for the belief that in its practical development exists one of the principal means of success in the fostering and encouragement of our industrial resources. We have confined our attention in the past too much to the development of the two industries of wool-and wheat-growing. Experience has bitterly taught us that we cannot rely on these alone for the prosperity or future greatness of our community, because it is an admitted fact that the nations achieving the greatest amount of success in the world's history have been those in which manufactures have held the premier position. No country devoted exclusively to the production of wool or of cereals has ever taken a high position among its fellows. With this as our guide, and remembering how intimately and indissolubly the interests and advancement of our local industries are bound up and associated with the development of our mineral resources, this latter, it seems to me, should be the main plank in the platform of any policy having for its object not alone the fostering of those industries which at present exist in our midst, but the encouragement of the foundation of new ones.

Next in importance to the development of our mineral resources as a method of encouraging and fostering local industries comes that which I have indicated under the second head. That is the imposition of duties on all articles that can be manufactured in the colony. This, I take it, would be found to be a very important means of encouragement to the local manufactures, enabling them to get over that period of the existence during which, like children, they require a certain amount of nursing, until they can run alone. The imposition of duties for the encouragement of local manufactures results in no injustice to the community, whilst it confers great benefits in the direction of encouraging their use by the people, enabling employment to be given to a large portion of our population, and causing money which would otherwise go out of the colony to be retained and spent here. Under present circumstances the expansion and progress of our local industries is to a large extent retarded from the fact that the majority of the mercantile firms are agents for consignments of goods the sale of which clashes with that of the local product. If, however, import duties were imposed sufficient to keep the those consignments, and to give the local industries the benefit of a reasonable handicap, a very great incentive to their progress would be supplied, and the fostering and encouragement in the people of self-reliance on our own powers of production would be practically brought into active operation.

Another important method of stimulating local enterprise in the matter of developing our industrial resources is by means of bonuses offered by the Government for the production of a certain quantity of any locally-manufactured article. Our experience in the past shows that the policy of offering bonuses is a wise and prudent one, and calculated to prove of benefit to the community as a whole. I need hardly point to the example of the Kaiapoi Woollen Factory as an example of this. The bonus comes at the most critical portion of the history of an industry, just when capital for the further development and perfecting of it is most urgently needed, and many of our flourishing industries would not to-day be in existence were it not for the timely assistance thus afforded. The expenditure in the past of a few thousands of pounds from the public purse has been the means of establishing upon a firm basis in our midst industries which have proved of inestimable benefit to the whole colony, and therefore I cannot but regard the system of offering bonuses by the Government in aid of local industries as most valuable in the direction of their fostering and encouragement.

In carrying out this policy it is, however, necessary that a fair amount of liberality should form an essential part of it. Whilst care is taken that the projectors of the local industry shall amply prove that it has been established up to such a point, that there is a reasonable chance of its becoming permanent, they should not be hampered with too many conditions, which, when fulfilled, in many instances do not aid in the direction I have indicated. What I take to be the duty of the Government in this matter is, to take such precautions as will prevent an industry being taken up merely as a speculation, to secure the bonus offered. Having, in the interests of the public, provided against this, it then becomes their duty to assist so far as is possible by liberal encouragement, and reasonable concessions, if necessary, in the development of all new methods for the utilization of our industrial resources by aiding them at the start. As a means, therefore, to this end I regard the granting of bonuses by the Government, on the most liberal terms consistent with safety to the public purse, as being very valuable.

I now come to the third and last branch into which I have divided this portion of the essay. There can be no doubt whatever that the formation of industrial associations in our cities and towns exercises a great influence for good in the direction of fostering the development of the industrial resources of the colony. It is to them that the projector looks for assistance to bring his particular industry under the notice of the public, and it is to them that he looks for advice. By means of papers on various subjects, the holding of exhibitions, and, above all, by the collecting together, as has been done in Christchurch, the nucleus of a permanent exhibition of industrial products, these associations do a large amount of good in the direction of educating the people as to the extent and variety of our industrial resources. The ignorance of the great bulk of the people as to what we really can do for ourselves in the matter of local productions is the great stumblingblock in the way of the fuller progress of

the local industries already established amongst us, and the growth of others yet to be projected.

I venture to say that to ninety-nine out of every hundred visitors to the Exhibition at Wellington the display of colonial products came upon them as an utter surprise, and that they had no idea that half the articles there exhibited could be and were being produced in the colony. It is this ignorance, coupled with the unreasoning and unaccountable prejudice which exists amongst the great bulk of the people with regard to anything colonially manufactured, which prevents our local industries attaining that perfection and magnitude which it is necessary they should attain to enable them to perform the work of placing New Zealand in a high position amongst the manufacturing nations of the world. We want our people to become thoroughly imbued with the idea that there is no need whatever to go outside our own borders for anything they may need to eat, drink, wear, or use. Anything that will accomplish this will be doing a great work in the direction of fostering the development of our industrial resources. And I claim for the industrial associations of the colony and all kindred organizations that they are to the best of their ability endeavouring to do this. But their efforts are to a great extent cribbed, cabined, and confined from the fact that they are expected to do in a large degree what is in reality a national work out of their own private resources. They are called upon to devote not only their time but their money also to accomplishing that which, if not actually undertaken by the Government as one of its departments, should at any rate receive from it a liberal and generous assistance. Therefore it is that I say one of the most effectual methods in which the development of our industrial resources can be stimulated and aided is by assisting those industrial associations now in existence so as to largely extend the sphere of their usefulness, and also to encourage the formation of similar associations where they do not at present exist.

The Government here thought it necessary to foster and promote the agricultural industry amongst us by the formation of a special department. How much more important, I would venture to point out, is the development of our industrial resources, the perfection of which can alone render New Zealand great and prosperous? It is no doubt a very good thing to educate the people to a knowledge of sound farming; but it is infinitely more important, in view of the bearing upon our future prosperity, that they should be educated to a fuller knowledge of the vast stores of wealth and materials for progress which lie at present undeveloped, in the shape of new industries which might be started and mineral resources to be utilized.

If we do not form a department for the industries of the colony similar to that for agriculture—and I see no reason why we should not—then the next best thing is to make the industrial associations of the colony as useful as possible in the direction I have indicated. By grants in aid of buildings which may be used for the permanent exhibition of our products, by placing in the hands of these associations bonuses for the development of new industries, and by adopting towards industries already established a liberal policy as regards rates of carriage from the factories or mines to the centres of population, I think a great step will be taken in the direction of fostering the development of our industrial resources, upon which in the future so much will depend. Everything that is now occurring around us, as well as the past history of other countries, teaches us one great lesson—namely, that a country, to be truly great, and to be able to support a happy, prosperous, and increasing population, must be a manufacturing country, and not a cereal-or wool-producing one only. For manufactures we should always have an increasing local market, as well as a foreign trade. That we can go outside our own boundaries with our manufactured products has been proved by the tweeds, &c., of the Kaiapoi Woollen Factory and the other factories of the colony finding a ready market elsewhere than in New Zealand itself. So it might be with other products of our local manufactories, if their development be stimulated by a liberal policy being adopted towards them by the Government, and the practical assistance of the people as a whole. If this be done we shall then see New Zealand taking that position to which her great natural advantages and vast resources entitle her as the greatest manufacturing nation of the Southern Hemisphere.

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Addenda and Omissions.

Department II.—Class 18.—Exhibit No. 247a.

August, Hermann, *Invercargill*.

- Patent Spring Paliasse (in three stages, to show principle of construction).

Department I.—Class 1.—Exhibit No. 12a.

Garlick & Cranwell, *Auckland*.

- One Mantel Piece of New Zealand Woods.

Index to Exhibitors.

decorative feature

Catalogue

Department I.

Raw And Manufactured Products.

Class 1.—*Products of the Cultivation of Forests, and of the Trades appertaining thereto.*

- 1—Ah Gee, *Blenheim*.
- Ornamental Mantelpiece.
- 2—Arnold, Edwin, *Wellington*.
- Wickerware.
- 3—Auckland Timber Company, *Auckland*.
- Articles of Local Manufacture.
- 4—Bacon, Septimus, *Masterton*.
- Joiner's "Work, &c.
- 5—Bath, Charles, *Wellington*.
- Dinner-Waggon—Carved in antique style. Manufactured from New Zealand woods only. Designed and made by the Exhibitor.
- 6—Bennett, Thomas, *Carterton*.
- Variety of Turned Work in New Zealand Woods; also Totara Rimu Knobs, &c., rough and polished.
- 7—Blackett, John G., *Nelson*.
- 2 Native Wood Walking sticks.
- 8—Boenicke, Richard, Basketmaker, *Dunedin*.
- General Basketware, Chairs, Flower-stands, &c., of Native Woods.
- 9—Booth & Co., William, *Carterton, Wairarapa*.
- Plank and Section of Totara Timber.
- 10—Dawson & Sons, John H., *Invercargill*.
- 1 Totara Board, Polished.
- 11—Findlay & Company, Limited, *Dunedin*.
- Doors
- Sashes
- Mantelpieces.
- 12—Ftjllerton, David, *Mauhu, Auckland*.
- 6 Ancient Maori Staffs.
- 13—Gibson, John, *New Plymouth*.
- Ground Charcoal, same as supplied for Meat-Freezing purposes to Auckland Freezing Company.
- 14—Halley & Ewing, *Wellington*.
- Joinery and Turnery, &c.
- 15—Harding, John, *Mount Vernon, Hawke's Bay*.
- Specimens of Hawke's Bay Timber.
- 16—Jackson, Clara Ellen, *Tua Marina, Marlborough*.
- Ferns.
- 17—Johnson, John, *Hokitika*.

- Mottled Silverpine of New Zealand.
18—Langdown & Co., William, *Christchurch*.
- General Woodware.
19—Lindsay, David E., *Wellington*.
- Variety of New Zealand Ferns, all gathered within five miles of Wellington.
20—Muir, Archibald, *Dunedin*.
- Basketware.
21—Partridge and Woollams, *Auckland*.
- New Zealand Wood Pipes, Cigar Holders, and Cigarette 1 olders.
22—Price, Edmund A., *Mary street, Thames*
- Confectioner's Moulds
- Carver and Gilder's Moulds
- Miscellaneous Carving.
Made wholly of New Zealand Woods.
23—Silvester, James, *Christchurch*.
- General assortment of Basketware, viz., Perambulators, Chairs, &c.
24—Stewart & Co., *Wellington*,
- Turnery and Joinery.
25—Stone, Robert, *Thames*.
- Veneers.
26—Strachan, Benjamin, *Nga Timote, Nelson*.
- General Cooper's Manufactures.
27—Sundgren, Henry, *Wellington*.
- Basketware, made of New Zealand Products.
28—Waddell, M'Leod & Weir, *Wellington*.
- Doors, Joinery, and Turnery.
29—Wakelin & Hawkins, *Greytoivn, Wairarapa*.
- Sashes, Doors, Moulding, &c.

Class 2.—Products of Hunting, Shooting, Fishing, and Spontaneous Products; Machines, and Instruments connected therewith.

- 30—Burton, Joseph R., *Wellington*.
- Selection of Stuffed Birds, caught at Otaki.
31—Carpenter, William, *Thames*.
- Kauri Gum.
32—Hamilton, Augustus, *Petane, Eawke's Bay*.
- Indigenous Sponges of many species, collected in Hawke's Bay by Exhibitor.
33—Hayr & Co., Harry H., *Auckland*,
- Bees Wax.
34—Jackson, Clara Ellen, *Tua Marina, Marlborough*.
- Sea Weeds
- Shells.
35—Jacobs, A. J., *Nelson*.
- One Case of New Zealand Birds
- Stag's Head and Antlers, prepared by Exhibitor.
36—Liardet, Hector E., *Wellington*.
- Samples of Feather Furriery.
37—Matson, J. T., *Papanui, Canterbury*.
- Ostrich Eggs.
38—Partridge & Woollams, *Auckland*.
- Ivory Billiard, Pool, and Pyramid Balls.

- 39—Price. Edmund A., *Mary Street, Thames*.
- Case of Birds.
- 40—Reid & Co., John, *Auckland*.
- Kauri Gum.
- 41—Reischek, Andreas, Naturalist, *Auckland*.
- Group of Nocturnal Birds
- Variety of Skins of Nocturnal Birds.
- 42—Smyth, William, *Dunedin*
- Stuffed New Zealand Birds
- 43—Southern Cross Petroleum Company, *Gisborne*.
- Refined Oil, Paraffin Butter, Wax, and other Products derived from Mineral Oil.

Class 3.—Agricultural Products not used for Food.

- 44—Auckland Fibre Manufacturing Compant, *Auckland*.
- 1 Bale New Zealand Flax.
- 45—Auckland Tobacco Company, Limited. *Auckland*.
- Raw Leaf Tobacco
- Foreign and New Zealand Manufactured Tobacco Cigars and Cigarettes (our own manufacture) Tobacco Seed.
- 46—Cameron Hugh, *Hokitika*.
- 1 Bale New Zealand Flax.
- 47—Gledhill & Thompson., *Tua Marina, Marlborough*.
- 1 Bale Dressed New Zealand Flax
- 2 Loose Hanks New Zealand Flax
- 48—Holmes & Bell, *Blenheim*.
- Flax.
- 49—Knight, Samuel, *Awahuri, Wellington*.
- Tobacco for Manufacture
- Lavender for Distillation.
- 50—Matthews, Jun., George, *Mornington, Dunedin*.
- Flax Fibre Preparation.
- 51—New Zealand Loan & Mercantile Agency Company, *Wellington*.
- Flax
- Tobacco.
- 52—Reid & Co., John, *Auckland*.
- Flax
- Fungus
- Other Native Products.
- 53—SINGER & CO., F., *Dunedin*.
- Oil
- Oil Cake
- Linseed Meal
- Seeds.
- 54—Verooe, Philip, *Blenheim, Marlborough*.
- 1 Bale Dressed New Zealand Flax.
- 55—Vollbracht's New Zealand Tobacco Growing & Manufacturing Company., *Auckland*.
- Colonial Grown Leaf Tobacco, cured, from 12 different districts
- Colonial made Cigars and Tobaccos, all varieties.
- 56—Wairoa Local Committee, *Hawke's Bay*.
- Specimens of Flax and Rope grown and manufactured in the Wairoa District.

Class 4.—Chemical and Pharmaceutical

Products.

- 57—Barraud & Son, *Wellington*.
- Pharmaceutical Articles.
- 58—Belfast Chemical Works, *Belfast, Canterbury*.
- Chemical Manufactures.
- 59—Brown & Son, *Parnell, Auckland*.
- Colonial-made Inks.
- 60—Corporation OF DUNEDIN, *Dunedin*.
- Chemical Products.
- 61—Haycock, Thomas, *Richmond, Nelson*.
- 3 Doz. Haycock's Skin Purifier and Healer, at 9s per dozen
- 1 Doz. Haycock's "Eureka" Knife Polish, at 6s per dozen
- 1 Doz. Haycock's Metal Polish, at 7s per dozen.
- 62—Hill, Edward H., *Bunedin*.
- Writing Ink of Colonial manufacture.
- 63—Hitchens, Henry A. H., *Auckland*.
- A Vegetable Compound from New Zealand Herbs, of sterling value. For the Cure of Indigestion, Rheumatism, Rheumatic gout, and Blood Impurities.
- 64—Hustwick, Thomas H., *Blenheim*
- Pure Chemicals and Pharmaceutical Preparations, manufactured by the Exhibitor.
- 65—Innes, William M., *Port Chalmers*.
- Cod Liver Oil.
- 66—Kaiapoi Glass Works, *Canterbury*.
- Glass Manufactures.
- 67—Kempthorne, Prosser, & Co.'s New Zealand Drug Company, Limited, *Dunedin*.
- Chemical and Pharmaceutical Products Perfumery and Toilet Preparations.
- 68—Leurs, William, *Pahautanui, Wellington*.
- Worm Cake?.
- 69—Mackley, John, *Owake, Otago*.
- Samples of Sporting, Military, and Blasting Gunpowder.
- 70—Mason, J. & T., *Auckland*.
- Perfumery.
- 71—Neil, James, *Dunedin*.
- Botanic Medicine?.
- 72—New Zealand Frozen Meat & Storage Company, *Auckland*.
- Sulphuric Acid
- Superphosphate of Lime (2 qualities)
- Sulphate of Ammonia.
- 73—New Zealand Manure & Chemical Company, *Tauranga*.
- Sulphur
- Sulphuric
- Acid.
- 74—Sharland & Co., J. C., *Auckland*.
- Druggists' Proprietary Articles, Perfumery, Cordials, and Medicines.
- 75—"Wellington Gas Company, *Wellington*.
- Oils and Dyes from Coal Tar
- Ammonical Liquor
- Sulphate of Ammonia
- Asphalt from Coal Tar and waste products.

Class 5.—Minerals, Ores, and Mining Products; Mineral and Artificial Aerated Waters; Soaps, Candles, Dyes, Colours,

Varnishes.

- 76—Adams, Luke, *Sydenham, Canterbury*.
 - Pottery Ware.
- 77—Auckland Brick & Tile Company, *Auckland*.
 - Pottery Ware.
- 78—Beetham, W. & H., *Masterton*.
 - Sample of Tallow.
- 79—Birley, Peter, *Auckland*.
 - Ornamental Ironwork. Fuchsia twining round a stick (from nature).
- 80—Black Ball Coal Company, *Black Ball Creek, Grey Valley*.
 - Sample of Coal
 - Plan with Cross-sections of Coal Seam as seen on surface.
- 81—Blackett, John G., *Nelson*.
 - Boulders with Iron Deposit inside. Found on Nelson-Belgrove Railway, near Belgrove.
- 82—Boyd, George, *Newton Pottery, Auckland*.
 - Terra-cotta Ware
 - Ornamental Pottery
 - Fire Clay
 - Common Earthenware Goods.
- 83—Brown & Son, Samuel, *Parnell, Auckland*.
 - Colonial-made Dyes.
- 84—Brown, Samuel, *Wellington*.
 - Terra Cotta.
- 85—Brunner Coal Company, *Brunnerton, Greymouth*.
 - Coal and Coke
 - Fire Clay.
- 86—Caswell Sound Marble, Portland Cement, & Mining Company, *Wellington*.
 - Marble.
- 87—Champion Copper Mining Company of New Zealand, *Nelson*.
 - Native Copper, and a variety of Copper Ores.
- 88—Coal Pit Heath Coal Mining Company, *Greg-mouth*.
 - Coal and Coke.
- 89—Colling Wood Coal Mining Companyz, *Ferntown, Nelson*.
 - Coal and Coke from the Company's Mine, Ferntown, Golden Bay.
- 90—Daniel, William, *Dipt on, Otago*.
 - 1 block Limestone.
- 91—Danks & Son, Samuel, *Wellington*.
 - Brass Foundry.
- 92—Dodson & Son, J. R., *Nelson*.
 - Sample of Coke.
- 93—Ford & Ogden, *Christchurch*.
 - Pottery ware.
- 94—Fowler & Rose (Lessees Coal Creek Coal Lease), *Greymouth*.
 - Block of Coal from 10ft. Seam
 - Parcel of Coke from 10ft. Seam
 - Block of Coal from 6ft. Seam
 - Parcel of Coke from 6ft. Seam
- 95—Gear Meat Preserving & Freezing Company of New Zealand, *Wellington*.
 - Tallow
 - Neatsfoot Oil
 - Trotter Oil.
- 96—Gilbertson & Sons, David, *Nelson*.
 - Limestone from Pata Islands, Massacre Bay
 - Quicklime; market price 1s. 6d. per bushel of 80lbs.
- 97—Grothe, Albert, *Devonport, Auckland*.
 - Coal Tar Derivatives

- Oils
- Varnish
- Dyes.
- 98—Harding, John, *Waipukurau, Hawke's Bay*.
- 4 Earthenware Jugs, made from New Zealand (Mount Vernon) Clay
- Sample of Natural Clay, from which Jugs were made.
- 99—Hartley Colliery Company, *Whitecliffs, Canterbury*.
- Specimen of Brown Coal from Seam known as "Brock-field." Seam lift, thick
- Specimen of Altered Coal from Seam known as "Hartley." Seam 2ft. 8in. thick.
- 100—Heskett, John, *Onehunga, Auckland*.
- Iron and Fire Bricks.
- 101—Hjorth & Co., Horatio, *Helensville, Auckland*.
- Toilet Soap.
- 102—Hogg, Alexander, *Thames*.
- Coal.
- 103—Holland & Butler, *Auckland*.
- Auckland-made Varnish.
- 104—Holmes & Bell, *Blenheim, Marlborough*.
- Tallow.
- 105—Hyde & Co., John, *Kilburnie, Wellington*.
- Extracts of Soap, made wholly from New Zealand products.
- 106—Kaitangata Railway & Coal Company, Limited, *Otago*.
- Sample of Coal—ordinary working seam.
- 107—Keoghan, Owen, *Takaka, Nelson*.
- Manufactured Paint.
- 108—Kitchen & Sons, *Wellington*.
- Candles
- Soaps.
- 109—Mcivoe, Kenneth, *Invercargill*.
- Bituminous Coal.
- 110—Mansfield, Joseph B., *Christchurch*.
- Marble Slab, engraved in different languages.
- 111—Miller James, *Kakahv, Canterbury*.
- Minerals.
- Coal
- Lime
- Iron Stone
- Pipe Clay.
- 112—New Zealand Loan and Mercantile Agency Company, *Wellington*.
- Kauri Gum.
- 113—Orepuki Coal & Shale Company, *Orepuki, Southland*.
- Block of Coal
- Block of Shale.
- 114—Peel, Edward, *Te Aroha, Thames*.
- Mineral Waters from Te Aroha Springs.
- 115—Petty, Watson, *Newton, Auckland*.
- Soap Powder
- Paste Blacking
- 116—Phillips, William, *Nelson*.
- Soaps, various kinds.
- 117—Pomphkey & Newlands, *Johnsonville, Wellington*.
- Neatsfoot Oil
- Glue.
- 118—Richmond Hill Silver Mining Company, *Nelson*.
- Specimens of Silver Ore, from a mine worked some years ago, but operations ceased owing to exhaustion of capital. The mine is now being reopened The lode is a fairly proven one, and in parts extremely rich in silver. A number of assays made by Mr Skey give returns ranging from 40 to 1700 ounces of silver per ton of ore.

- 119—Rutherford & Co., *Kamo, Auckland.*
- Hematite Paint
- Samples of Lime and Cement.
- 120—Smith Brothers, *Wellington.*
- Iron Castings.
- 121—Smith, E. M., *New Plymouth.*
- Samples of the Mineral Products of the District Taranaki: Iron Sand, Mokau Coal, Fire Clay' Lime Stone, Clay Marl, Sand Rocks, and Cement.
- 122—Springfield Coal Company, Limited, *Canterbury.*
- Fire Clay Goods
- Pottery.
- 123—Thames Paint Company, *Thames.*
- Oxide of Iron, Paints and Ore.
- 124—Union Oil, Soap & Candle Company *Auckland.*
- Stearine Candles
- Laundry and Toilet Soaps
- Oils and Oil Cake.
- 125—Washbourn, Arthur J., *Para Para, Nelson.*
- Dry Hematite Paint, from the Works, late the property of the New Zealand Hematite Paint Company.
- 126—Wellington Gas Company, *Wellington.*
- Gas Coke
- Gas Tar.
- 127—Wellington Meat Preserving & Refrigerating Company, *Wellington.*
- Tallow.
- 128—Willeston, Charles E. W., *Wellington.*
- Antimony.
- 129—Williams, William R., *Wellington.*
- Sample of Westport Coal, from Koranui Mine.

Class 6.—Chemical Process for Bleaching, Dyeing, Printing and Dressing.

- 130—Lightband, Allan & Co., *Woolston, Christchurch.*
- Glue.
- 131—Robertson, Alexander, *Nelson.*
- Specimens of Dyed Goods.
- 132—Smith, Charles R. C., *Lucas Creek, Auckland,*
- Peerless Gloss for Boots, Leather, &c.
- Hair Dye
- Indelible Ink.

Class 7.—Leather and Skins.

- 133—Blick, J. & B., *Nelson.*
- Leather.
- 134—Bowron Brothers, *Woolston, Christchurch.*
- Roans and Skivers for Bookbinders, Upholsterers, and Boot and Shoe Manufacturers
- Leathers for Hat Linings
- Chamois Leathers, &c.
- 135—Lightband, Allan & CO., *Christchurch.*
- Leather.
- 136—Lisle, W. H. De, *Carterton.*
- Rabbit Skins.
- 137—Ralph, Josiah, *Timaru.*
- Leather and Skins.

- 138—Tter, Alered, *Ngahauranga, Wellington.*
- Leather and Bark Extract.

Glass 8.—Artificial Manures.

- 139—Gear Meat Preserving & Freezing Company of New Zealand, *Wellington.*
- Bone Duet.
- 140—Kempthorne, Prosser & Cops New Zealand Drug Company, Limited, *Dunedin.*
- Artificial Manures.
- 141—Lock Brothers, *Nelson.*
- 3 Samples of Specially Prepared Bone-dust.
- 142—New Zealand Frozen Meat & Storage Company, *Auckland.*
- Manures
- Ground Bones.
- 143—New Zealand Manure & Chemical Company, *Tauranga.*
- Artificial Manure.
- decorative feature

Department II

Machinery. Apparatus & Processes Used in the Mechanical Industries.

Class 9.—Agricultural Implements and Processes used in the Cultivation of Fields and Forests; Agricultural Machinery.

- 144—Acme Patent Barbed Wire Company *Ti maru*
- Acme Patent Barbed Wire
- Acme Patent Barbing Tools
- Acme Concave Strainer, with key and Spanners
- Acme Archimedian Strainer
- Acme Patent Steel Barbs.
- 145—Andrews & Beaven, *Christchurch.*
- Chaff Cutters
- Horse Gears
- Corn Crushers
- Hand-power Grass Seed Thrasher Grass Seed Cleaners.
- 146—Carswell, White & Co., *Invercargill.*
- Model of Tree Stump Extractor.
- 147—Duncan, P. & D *Christchurch.*
- Agricultural Implements.
- 148—Finch, Frederick A., *Karori, Wellington.*
- Iron Gates.
- 149—Fraser, George, *Auckland.*
- Triumph Titree and Scrub Cutting Machine
- Bushman's Log Jack.
- 150—Hat, Jabez, *Invercargill.*
- Castings and Sawmill Machinery.
- 151—Lunt, Thomas, *Seafield, Canterbuny.*
- Improved Connecting-rod for Reaper and Binder Machines.
- 152—Mackat, James, *Wakapuaka, Nelson.*
- Standards and Strainers for Wire Fencing
- Hand-strainers and Suspenders for Wire Fencing
- Improved Hook for Sheep-dipping
- Improved Sheep Foot Knife.
- 153—Murrat, William A., *Piako, Auckland.*
- Appliance for Straining and Fixing the Wires in new

- Wire Fences, and for effecting repairs to old ones.
- 154—New Zealand Implement Compant (Begg and Wilkinson), *Dunedin*.
- Patent Central Archimedean Feed, Broadcast Grain and Grass-seed Sower
- Patent Combined Turnip and Manure Drill
- Patent Flexible Steel Harrows
- Patent Self-locking Steel Fencing Standards
- Patent Fencing Wire Clips
- Patent Barbing Machine.
- 155—Norburt, George, *Wellington*.
- Agricultural Field Tiles
- Garden Borders.
- 156—Reid & Gray, *Dunedin*.
- Agricultural Implements.
- 157—Wallace & Stotham, *Otahuhu, Auckland*.
- "Triumph Hoe," fitted with patented Revolving Discs, suitable for cultivating Potatoes, Corn, Carrots, Beet and other drill crops. Hoe teeth can be altered to suit drills of any width, and revolving discs adjusted to cut immediately alongside growing crop, dividing weeds from plants, without danger of destroying same.

Class 10.—Apparatus and Processes used in Agricultural Works.

- 158—Atkinson, Thomas, *Christchurch*.
- Cooking Ranges
- Castings.
- 159—Barnard, Joseph, *Greytown North*.
- Bar-framed Bee-Hive, and improved Apiary Appliances.
- 160—Barret, Edwin, *Wanganui*.
- One Bee-Hive for raising Comb Honey or Extracted Honey—Raised over 700 sections last year.
- 161—Brickull, Thomas G., *Dunedin*.
- Bee-Hives, Honey Extractors, and Apiarian Appliances.
- 162—Bryant & Pond, *Auckland*.
- Enamel-lined Wooden Packages, for the export of Butter, Meats, &c.
- 163—Crawford, Walter W., *Auckland*.
- Dairy Factory and other Models of Machinery (comprising a complete Cheese Factory Plant, on scale of 2in. to the foot.
- 161—Crompton, Thomas, *Christchurch*.
- Ranges.
- 165—Dixon, Thomas, *Masterton*.
- 3 Worksoop Bee-Hives, made of White Pine, and with arrangements for surplus honey.
- 166—Dow, Thomas C., *Christchurch*.
- Barrel Churn.
- 167—Ellis, Thomas, *Goat Valley, Wanganui*.
- Patent Churn.
- I claim for my exhibit that it produces six per cent, more butter than any other churn. It is self-cleaning by cross-action. It is manufactured entirely of New Zealand wood, and is uniform, so that any part can be replaced on application.
- 168—Firth, Josiah C., *Matamata Apiary, Auckland*.
- Artificial Comb Foundation.
- 169—Fleming, John, *Geraldine, Canterbury*.
- 3 Milk Tins; cost, 1s per gallon.
- 170—Harbutt, Thomas J., *Auckland*.
- Corn Brooms, manufactured in Auckland by Colonial youths
- Hand Whisps, manufactured in Auckland by Colonial youths.
- 171—Harrington, James, *Invercargill*.
- 1 Case Horse Shoes and Shod Feet.
- 172—Jensen, Jens, *Feilding, Wellington*.
- Combination Firestand and Boiler, for kitchen use.

- 173—Laurie, William, *Thames*.
- Water Wheel, for domestic use.
- 174—Luke & Sons, S., *Wellington*.
- Machinery and Cooking Ranges.
- 175—Murray, David, *Wanganui*.
- One 6-Horse Power Horizontal Stationary Engine
- One Double Cheese Press
- One Single Cheese Press
- 176—Papworth, David S., *Masterton*.
- Artificial Incubator, for hatching the eggs of fowls, ducks, turkeys, geese, etc.
- Manufactured entirely of New Zealand timber.
- 177—Scott, Brothers, *Christchurch*.
- Kitchen Ranges.
- 178—Shacklock, Henry E., *Dnnedin*.
- Cooking Ranges of artistic design, portability, ease of management, economy of fuel, adaptability to the various fuels in use in the Colony, and dispensation of brickwork.
- 179—Smith, Herbert H., *Auckland*.
- 2 Stoves, made in Auckland.
- 180—Watters, Thomas J., *Christchurch*.
- Cooking Ranges.

Class 11.—Apparatus and Processes used in Mining and Metallurgy.

- 181—Alves, John, *Dunedin*.
- Gold Mining Machinery.
- 182—Ashcroet, George, *Petone*.
- Quartz Crushing and Gold Saving Machine.
- 183—Brunner Coal Company, *Brunnerton, Greymouth*.
- Fire-clay Retorts, for Gas-making, and other Fire-clay goods.
- 184—Burt, A. & T., *Dunedin*.
- General Metal Manufactures.
- 185—Danes, I. & T., *Christchurch*.
- Pumps in Motion.
- 186—Foothead, Edward I., *Wellington*.
- Metal Work.
- 187—Fraser, George, *Auckland*.
- Hydraulic Mining Jet.
- 188—Hopkinson, Joseph, *Marlon, Rangitikei*.
- New Design of Furnace, for Smelting Virgin Iron Ore.
- 189—Malfroy, Camille, *Ross, Westland*.
- Hydraulic Motors, to be worked by Water Pressure by means of a one-inch supply pipe
- Drawings of Direct Acting Pumping Engine.

Class 12.—Apparatus used in Chemistry, Pharmacy, and Tanning.

- 190—Chatfield, A.W., *Auckland*.
- New Zealand Patent "Triumph" Celluloid Base, for Artificial Teeth; also Base and Dental Specimens.
- 191—Hall, Walter E., *Wellington*.
- Artificial Teeth on Vulcanite, Platina, Gold, Celluloid, &c.
- 192—Hatch, Joseph, *Invercargill*.
- Sheep Dip, and "Wool dipped with same.
- 193—Michaelis, Hallenstein, & Farquhar, *Dunedin*.
- Tanning Material.
- 194—Monckton, Francis A., *Kumara, Westland*.
- Compound decoction of Phormium Tenax, prepared as an Antiseptic Granulating agent in the practice of

- Surgery.
- 195—Robinson, Dr. Horace, *Dunedin*.
- Prosthetic Dentistry.
- 196—Tripe, Dr. Julius D., *Wanganui*.
- 1. Improved Aspirator for evacuating the contents of large cysts, &c.
- 2. Improved Leg Splint
- 3. Apparatus for treatment of severe injuries to the arm
- 4. Craniotomy Crochet
- 5. Forceps for removing foreign bodies from the ear, &c.
- 6. Self-acting Galvanic Ecraseur.
- 197—Wilson, Henry C., *Napier, Hawke's Bay*.
- Artificial Dentistry.

Glass 13.—Machines and Apparatus in General.

- 193—Ballinger Brothers, *Wellington*.
- Ironware, &c.
- 199—Beaumont Brothers, *Wellington*.
- Tin and Sheet Ironware.
- 200—Bedell, Henry G., *Wellington*.
- "The New Zealand Wonder," Machine for Drilling and Tapping Pipes and Boilers under High Pressure
- "The Permanent Magnet Machine:" Electric Light and Shock Dymo Machine.
- 201—Bernasconi, Giuseppe, *Wellington*.
- A Machine calculated to perform 7 different kinds of work at the same time, viz., Band-saw work, Fretsaw work, Oval Turning, Drilling, Circular-saw work, Grindstone work, and Lathe work, either by Hand, Treadle, or Steam Power. Invented and made by the Exhibitor
- Sundry other Machinery.
- 202—Booth, Macdonald, & Co., *Christchurch and Invercargill*.
- Carlyle Iron Windmill for Pumping Water. Erected complete.
- 203—Cameron, Maurice P., *Wellington*.
- Tinware
- Galvanized Ware
- Japan Ware
- Lead-headed Nails.
- 204—Climo & Bawden, *Thames*.
- Patent Water Motor.
- 205—Collie, John, *Wellington*.
- Improved Saw Frame, with Crank and Handle.
- 206—Crompton, Thomas, *Christchurch*.
- Sundry Castings.
- 207—Cutten & Co., *Dunedin*.
- Fire-Proof Safe
- Strong Room Door
- Bicycle, &c.
- 208—Donald, Donald, *Masterton*.
- One "Solway" Wool Press.
- 209—Earle, John, *Auckland*.
- A machine for mixing Teas, Seeds, or Grains, and called the "Zealandia Combination Tea Mixer," (Patent).
- 210—Fairweather, William, *Blenheim*.
- Foundry Work.
- 211—Fisher, Hugh, *Grahamstown, Thames*.
- Two Sets of Pulley Blocks.
- 212—Fraser, George, *Auckland*.
- Marine Compound Engine of 16 H.P. nominal Valveless Horizontal Steam Winch.
- 213—Fraser, John C., *Coromandel, Auckland*.
- Clothes-washing Machine.
- 214—Garland, Thomas, *Wellington*.

- Tin and Japanned Ware.
215—Gascoigne, Charles J., *Marlon, Wellington.*
- Model of Wool Press. Entirely of New Zealand Products.
216—Hibberd & Legge, *Auckland.*
- Artificial Stone, and Working Models of Machinery.
217—Hurrey & Gibbons, *Gishorne.*
- Saws, patented for New Zealand.
218—Jenkins, Thomas C. *Wellington.*
- Recording Billiard Marker.
219—Jowsey & Jackson, *Timaru.*
- Invalid Bedstead
• A Bedstead suitable for Invalids and treatment of Fractures.
220—Judd, Charles, *Thames.*
- Jacks.
221—Kincaid, Mcqueen, & Co., *Dunedin.*
- Machinery.
222—Knuckey, Richard, *Wellington.*
- A Washing Machine.
223—Mcduff, John W., *Wanganui.*
- Fire Hose Reel.
224—Mills & Cable, *Wellington.*
- General Machinery.
225—Murray, David, *Wanganui.*
- 1 Murray's Patent Wool Press.
226—New Zealand Implement Company (Beggh and Wilkinson) *Dunedin.*
- Patent Traegerwellblech: Weight-bearing Iron
• Patent Domestic Washing Machine.
227—Osborne & Baker, *Invercargill.*
- Steam Engine.
228—Packer, Jabez A., *Nelson.*
- Artificial Limbs.
229—Price, A. & G., *Thames.*
- Machinery.
230—Price, William H., *Sydenham, Canterbury.*
- Garden Engine
• Hand Fire Engine
• Force Pump.
231—Prince, Walter, *Dunedin.*
- One Dynamo-electric Machine for 50 Incandescent Lamps of 20 C. Power each
• Set of Mining (electric) Lamps and sundry fittings for Electric Light as applied to domestic purposes.
232—Remington, George, *Wellington.*
- Hardware.
233—Robertson & Co., *Wellington.*
- Machinery, Ironwork, Forgings, and Castings.
234—Scott Brothers, *Christchurch.*
- Steam Engines
• Steam Pump Turbine
• Ely Press
• Register Grates
• Fountains
• Garden Seats
• Architectural and other Ornamental Castings.
235—Sexton, James, *Wellington.*
- 1 Case Assorted Steel Polished Horse Shoes, highly finished and slated.
236—Sparrow & Co., R. S., *Dunedin.*
- Machinery.
237—Stevens & Harding, *Fielding, Wellington.*
- Model of Patent Fire Locator, an electric apparatus by means of which the direction or locality of a fire is

indicated at a Brigade Station; or a means of indicating when a hostile vessel passes immediately over the spot at which a torpedo is sunk in a harbour.

238—Swann & Koertz, *Waverley, Patea*.

- 1 Wool Press.

239—Waddell, T., *Sydenham, Christchurch*.

- Steel Castings, general assortment.

240—Wellington Gas Company, *Wellington*.

- Gas Cookers
- Gas Heating Stoves
- Ventilating Stoves
- Water Heaters
- Gas Engine
- Coke Stoves.

241—Willson, R. J. Fermor, *Dunedin*.

- Patent Washing Machine.

Class 14.—Machine Tools.

242—Bedell, Henry G., *Wellington*.

- "The Lightning" Lead-Headed Nail Machine.

243—Coopee, James, *New Plymouth*.

- 1 Improved Nail-puller
- Sundry Machine Tools.

244—Hudson, Joseph H., *Wellington*.

- Model of Machine Tools.

245—Nees, Charles, *Wellington*.

- Machine for grinding or reducing Circular or other Saws.

Class 17.—Apparatus and Processes for Sewing and Making-up Clothing.

246—Chambers, David S., *Auckland*.

- Sewing Machine Apparatus, &c.

247—Schlaadt, Brothers, *Dunedin*.

- Water Motors
- Boot Manufacturing Machinery
- Sample Cutter Knives.

Class 18.—Apparatus and Processes used in the Manufacture of Furniture and Objects for Dwellings.

248—Bates, Jr., William, *Christchurch*.

- Furniture.

249—Beadnall, Thomas, *Wellington*.

- Picture Frames
- Ornaments for Picture Frames
- Cardboard Mounts for Pictures.

250—Begg & Co., Charles, *Dunedin*.

- Piano.

251—Bills, Charles, *Dunedin*.

- Woven Wire Mattresses
- Bird Cages
- Garden Wire Work
- Sieves, Riddles, &c.

252—Calman, John, *Wanganui*.

- Bedroom Suite of Furniture complete. About 20,000 pieces of wood used in construction. Carving made of Cedar, the rest entirely of New Zealand woods.

253—Carey, Patrick J., *Nelson*.

- Curled Hair for Upholstery, superior to the imported article.
254—Cheltenham, Richard, *Auckland*.
- 2 Marble Chimney-pieces, with Fittings for same.
255—Cooper, James, *New Plymouth*.
- 1 Garden Lounge.
256—Cording, Edmund, *Featherston*.
- Table inlaid with New Zealand woods, taken entirely from Featherston Bush.
257—Craig & Gillies, *Dunedin*.
- Furniture.
258—Crompton, Thomas, *Christchurch*.
- Mangles.
259—Dunedin Iron & Woodware Company, *Dunedin*.
- Furniture
- Bentwork and Woodwares.
260—Effey, Charles, *Christchurch*,
- One Drawing-room suite of furniture in Maroon rep.
- One Dining-room suite of furniture in Morocco
- One Parlour suite of furniture in Hair-cloth.
261—Fraser, John C., *Coromandel, Auckland*.
- 1 Bed Mattress.
262—Geldsmid, Abraham B. W., *Wanganui*.
- Two Infant's Safety Swings.
263—Gosling, Benjamin, *Feilding, Manawatu*.
- Memorial Tablets on Glass, for Churches and Dwellings Inside decorative works and writing.
264—Henderson, David, *Thames*.
- Improved Hand Bellows.
265—Henn & Hansen, *Wellington*.
- Venetian Blinds, &c.
266—Hooker, William, *Christchurch*.
- House Furniture: Drawing-room, Bedroom, and Sitting-room.
267—Hucker, Joseph, *Dunedin*.
- Ebonised Cabinet.
268—Jago, Thomas, *Masterton*.
- Large Chest of Drawers.
269—Kilworth, Thomas E., *Ashburton, Canterbury*.
- Sideboard, manufactured from Red and Black Pine Timber.
270—Kimbell, J. L., *Wellington*.
- Furniture manufactured in "Wellington".
271—Langbein, A. A., *Timaru*.
- 1 Clock Stand made of Colonial wood
272—Levett, Robert, *Auckland*.
- 2 Marble Chimney-pieces, with Fittings for same.
273—Matthews & Glass, *Oamaru*.
- 12 Grained and Marbled Pannels
- 3 Freehand Drawings
- Embossed Glass.
274—Moffltn, Arthur, *New Plymouth, Taranaki*.
- Model, half size, Extending Dining Table.
275—Norr1E, William, *Auckland*.
- A Gem "Wardrobe, of New Zealand woods.
276—North & Scoullar, *Dunedin*,
- Furniture.
277—Oakden & Howell, *Dunedin*.
- Pianoforte.
278—Poole, Richard, *Dunedin*.
- Patent Safety Folding Fire-Screen, Guard, Damper, and Fuel Economiser.
279—Shone, Thomas, *Nelson*.
- Inlaid Table-Top of New Zealand woods.

- 280—Stonebridge, Thomas, *Dunedin*.
- Cabinet Work.
- 281—Tiller, George, *Wellington*.
- Sideboard in New Zealand Wood
- Suite of Furniture.
- 282—Townlet, John, *Gisborne*.
- Furniture.
- 283—Trevethick, Charles, *Lower Hutt, Wellington*.
- Brushware.
- 284—White, Alfred J., *Ghristchurch*.
- Household Furniture
- Organ made by E. H. Jenkins.
- 285—Whitt & Donaldson, *Masterton*.
- Sideboard in various New Zealand woods.
- 286—Windelev, John, *Wellington*.
- House Bellows
- Knife Board.
- 287—Winks & Hall, *Auckland*.
- Bedroom Suite.

Class 19.—Apparatus and Processes used in Paper-making, Dyeing, Printing, Stereotyping, and Lithography.

- 288—Best, Samuel, *Dunedin*.
- Specimens of Lithographic Drawing and Writing.
- 289—Bock & Cousins, *Wellington*.
- Specimens of Engraving
- Specimens of Die Sinking
- Specimens of Lithographic and Letterpress Printing Letterpress Printing Machine.
- 290—Buebett, Robert, *Wellington*.
- Samples of Lithography, Printing, Engraving, and Bookbinding.
- 291—Didsburt, George, *Wellington*.
- Apparatus and Processes used in Printing, Bookbinding and Stereotyping
- Specimens of Bookbinding and Electrotypes.
- 292—Edwards & Green, *Wellington*.
- Show Frames of Printing, &c.
- 293—Fergusson & Mitchell, *Dunedin*.
- Account Books, Letterpress, Binding, &c.
- Brown, Grey, and Coloured Wrapping Paper and Paper Bags.
- 294—Ffrost & Manlet, *Wellington*.
- Rubber Stamps
- 295—George, Thomas, *Dunedin*.
- Lithography and General Printing.
- 296—Griffin, S. U., *Auckland*.
- Brass Plate Engraving
- Stencil Cutting
- Gun Engraving
- Jewellery Engraving
- Rubber Stamps.
- 297—Lanskheae, William I., *Wellington*.
- Letterpress and Account Books Stationery and Bookbinders' Machinery.
- 298—Lyon & Blair, *Wellington*.
- Manufactured Stationery, &c.
- 299—Mataura Falls Paper Mill Company, *Dunedin*.
- Brown Wrapping Paper
- Grey Paper
- Paper Bags.
- 300—Murray & Spencer, *Auckland*.

- Rubber Stamps of our own manufacture
- Patent Self-Inking Stamps, fitted with Rubber
- Dies of our own manufacture.
- 301—New Zealand Paper Bag Manufacturing Company, *Dunedin*.
- Paper Bags
- Stereotype Blocks.
- 302—"New Zealand Times," *Wellington*.
- Posters, Circulars, Cards &c.
- 303—Palethorpe, Harold, *Wellington*.
- Engraved Wood Blocks and Proofs.
- 304—Surveyor-General, *Wellington*.
- Lithographs.
- 305—Thames Newspaper & Printing Company, *Thames*.
- Specimens of Letterpress Printing.
- 306—"Timaru Herald" Company, *Timaru*.
- 1 Case of Samples of Printing by Letterpress Process.
- 307—Whitcombe & Tombs, Limited, *Christchurch*.
- All kinds of Manufactured Stationery, including Account Books, Blank Books, Diaries and Packed Note Paper, Publications, Specimens of Lithography, Printing, Bookbinding, &c.
- 308—"Williams, Chaeles H., *Wellington*.
- Specimens of Ornamental Engraving.
- 309—Young, Heney W., *Wanganui*.
- Design for Card Cutting Machine.

Class 20.—Machines, Instruments, and Processes used in various Works, including Horological Appliances.

- 310—Barnes, Richard J., *Wellington*.
- Clock, with iserhronal pendulum.
- 311—Forrest & Son, J., *Sydenham, Canterbury*.
- Cardboard Boxes, for Jewellery, Hats, etc.
- 312—Hess & Mothes, *Petone, Wellington*.
- Violin Strings
- Clock and Bow Strings, for watchmakers
- Belt, for machinery.
- All manufactured from sheep gut.
- 313—Hickson, Theodor W., *Auckland*.
- Triumph Totalisator, or Automatic Multiplex Registering Machine.
- 314—Littlejohn & Son, W., *Wellington*.
- Clocks
- Turret Clock
- Astronomical Clock
- 315—Procter, Thomas R., *Christchurch*.
- Optical Goods.
- 316—Service, William, *Auckland*.
- Cardboard Boxes.
- 317—Tracey, Thomas J., *Dunedin*.
- Cardboard Boxes.

Class 21.—Carriages and Wheelwrights' Work.

- 318—Balme, Henry, *Nelson*.
- Denmark Phaeton.
- 319—Bohan, Michael, *Wellington*.
- Buggies.
- 320—Boon & Stevens, *Christchurch*.
- Hansom Cab
- Buggy.

- 321—Cameron, Daniel, *Greytown North*.
 - Double-seated Buggy, made by Exhibitor.
 - 322—Cousins & Aitken, *Auckland*.
 - 1 Cart
 - 1 Zealandia Fine Glass Landau.
 - 323—Elmslt & Curlett, *Christchurch*.
 - 1 Double Buggy
 - 1 two-wheeled Vehicle (either Dog Cart, Whitechapel Cart, or Pony Cart).
 - 324—Fitchett, John, *Wellington*.
 - Spring Cart.
 - 325—Howland, A. G., *Christchurch*.
 - Buggy, fitted with Eccentric Lock
 - Waggonette with Eccentric Lock
 - 326—Langdown & Co., William, *Christchurch*.
 - Carriage Material.
 - 327—Moore & Co., W., *Christchurch*.
 - 2 Carriages.
 - 328—Muir & Dixon, Coach Builders, *Masterton*.
 - 1 Double Buggy, with Polo and Shafts, Lamps, Brake, and Leather Trimmings.
 - 329—Rafton, Henry, *Auckland*.
 - Rafton's Patent Spring-seat Four-wheel Peramubulator
 - Rafton's Patent Improved Portable-seated Peramubulator
 - 330—Robin & Co., J., *Dunedin*.
 - Carriages.
 - 331—Rouse & Hurrell, *Wellington*.
 - Carriages.
 - 332—Service & Fitton, *Auckland*.
 - Bicycles and parts.
 - 333—Sinclair, Mark, Coachbuilder, *Dunedin*.
 - Sinclair's Combination Buggy.
- Can be used as a Dog Cart, Double or Single Seat Buggy, without any extra fixings; the whole thing being complete in itself, and can be instantly converted into either of the above, as may be desired. The design and improvements are entirely of my own invention. The Panels are of Kauri wood, the Framework, Gear and Wheels of Hickory and Ash.
- 334—Stewart, J. & W., *Dunedin*.
 - Single Buggy.

Class 22.—Harness and Saddlery, Portmanteaux, Belts, Purses, and Manufactured Leather Goods.

- 335—Ballantine, Jane, *Wanganui*.
- Leather Work.
- 336—Bruce & Co., Henry, Limited. *Auckland*.
- 1 Lady's Saddle
- 5 Gents' Saddles.
- 337—Evans, John E., *Wellington*.
- Saddlery
- Harness
- Leather Cases.
- 338—Field, Edmund A., *Dunedin*.
- Portmanteaux, Basils, Straps, etc.
- 339—Greatrex & Son, *Wellington*.
- Saddlery
- Whiphongs
- Collars.
- 340—Hatfield, George, *Auckland*.
- Solid Leather Portmanteaux
- Gladstone Bags

- Hat Cases.
All made from New Zealand leather.
341—Mackay, James, *Wakapuaka, Nelson*.
- Improved Harness
- Safety Roller Stirrups
- Safety Spring Bar for Saddles.
342—Wiggins, William, *Wellington*.
- Saddlery
- Harness.

Class 23.—Railway Apparatus.

- 343—Darrow, James, *Thames*.
- Railway Sleepers.
- 344—Hopkinson, Joseph, *Morton, Rangitikei*.
- New Designs for Railway Carriage Wheels of all kinds.

Class 24.—Telegraphic Apparatus and Processes.

- 345—Welch, Herbert L., *Christchurch*.
- Telephone Companion, for the purpose of conveniently writing down messages received or to be transmitted through the Telephone.

Class 25.—Apparatus and Processes of Civil Engineering, Public Works, and Architecture.

- 346—Akersten, William, *Nelson*.
- Plans of Bridges.
- 347—Atkins, Alfred, *Wanganui*.
- Wire Measure for surveying.
- 348—Auckland Brick & Tile Company, *Auckland*.
- Dry Pressed Plain Bricks
- Fancy Bricks.
- 349—Austin, Kirk & Co., Limited, *Christchurch*.
- Building Material.
- 350—Ballinger, Thomas, *Wellington*.
- Plumbing, Gasfitting, and Sheet Metal Goods.
- 351—Crompton, Thomas, *Christchurch*.
- Water-barrows
- Wheelbarrows.
- 352—Danks, J. & T., *Christchurch*.
- Pumps, Steam, Water, and Gas Fittings.
- 353—Falkner, Alfred, *Wellington*.
- Map, showing the topographical features of the lands belonging to the Wellington and Manawatu Railway Company, and the district served by its Railway between Wellington and Junction with Fox-ton and Taranaki Railway.
- 354—Ford & Ogden, *Christchurch*.
- Bricks.
- 355—Gaby, Herbert, *Wellington*.
- Gas, Fire, and other Gas Appliances.
- 356—Gisborne Harbour Board, *Gisborne*.
- Model of proposed Harbour and Breakwater.
- 357—Grothe, Albert, *Devonport, Auckland*.
- Plans of an improved Slipway for ships.
- 358—Hill, Herbert, *Wellington*.
- Chimney Pots.
- 359—Luke & Sons, S., *Wellington*.
- Builders' Material, etc.

- 360—Norbury, George, *Wellington*.
- Building Bricks
- Chimney Tops.
- 361—Pentelow, Ebenezer, *Greymouth, Westland*.
- Picture: Bird's-eye View of Greymouth Harbour.
- 362—Springfield Coal Company, Limited, *Canterbury*.
- Bricks, Tiles, etc.
- 363—Thompson, Thomas J., *Bluff Harlour, Campbelltown*.
- Brickets and Powder Portland Cement, manufactured at Bluff Harbour. Of good quality, and equal to the imported article.
- 364—Warkworth Cement Company, *Auckland*.
- Portland Cement
- Hydraulic Lime.
- 365—Wellington Gas Company, *Wellington*.
- Model Gas Works
- Photometer
- High Power Burner in avenue
- Gas Burners of various designs
- Regenerative Gas Burners.

Class 26.—Navigation and Life Saving.

- 366—Akeesten, William, *Nelson*.
- Compasses
- Life Buoys
- Boat Lowering Apparatus
- Other Marine Contrivances.
- 367—Coventry, James, *Wellington*.
- Coventry's Patent Mechanical Swimming Instructor.
- 368—Green, H. T., Boat Builder, *Dunedin*.
- 1 set Racing Oars, and 1 pair Racing Sculls.
- 369—Hoskins, Edwin, *Wellington*.
- Model of Ship.
- 370—Huffam Brothers, *Nelson*.
- 3 Models of Boats.
- 371—Mills & Cable, *Wellington*.
- Steam Engine and Boiler Propellers.
- 372—Sinclair, Duncan, *Lower Hutt, Wellington*.
- Improvement in Marine Record Preservers.
- 373—Webster, William, *Timaru*.
- Nautical Instrument.

Class 28.—Sanitary Appliances.

- 374—Auckland Brick & Tile Company, *Auckland*.
- Socket Drain Pipes, &c.
- Tiles.
- 375—Austin, Kirk, & Company, Limited, *Christchurch*.
- Sanitary Appliances and Draining Pipes.
- 376—Boyd, George, *Newton Pottery, Auckland*.
- Sanitary Appliances.
- 377—Ford & Ogden, *Christchurch*.
- Drain Pipes.
- 378—Hayes, John E., *Wellington*.
- Mechanical and Sanitary Manufactures.
- 379—Hement Brothers, *Christchurch*.
- Syphon Bath Fittings.
- 380—Norbury, George, *Wellington*.

- Sewage Pipes
 - Sewage Bends
 - Sewage Junctions
 - Sewage Traps.
- 381—Ross, David, F.R.I.B.A., *Dunedin and Auckland*,
- Ross's Patent Double-purpose Sanitary Self-acting Closet Seat.
- 382—Springfield Coal Company, Limited, *Canterbury*.
- Drain Pipes, Junctions, &c.
decorative feature

Department III.

Textile Fabrics, Clothing, and Accessories.

Class 29.—*Cotton Thread and Fabrics.*

- 383—Teutenberg, Franziska, *Auckland*.
- Art Needlework.

Class 30.—*Thread and Fabrics of Flax, Hemp, &c.*

- 384—Andrews, John C., *Bangiora*.
- Binder Twine
 - Polished Shop Twine
 - Plough Guides and small Cordage.
- 385—Auckland Fibre Manufacturing Company, *Auckland*.
- Rope and Cordage made from Manilla Hemp
 - Russian Hemp and New Zealand Flax
 - Binder and other Twines
 - Matting made from New Zealand Flax.
- 386—Barber, W. H. P., *Wellington*.
- Samples of dyed New Zealand Flax.
- 387—Cossgrove, Andrew, *Caversham, Dunedin*.
- Hand-made Ropes and Twine spun from New Zealand Flax.
- 388—Donaghy & Co., *Dunedin*.
- Ropes, Lines, and Twines manufactured from New Zealand Flax and Manilla Hemp.
- 389—Gilberd, Henry I., *Taradale, Hawke's Bay*.
- Specimens of Fibre made from bark of native shrub "Coprosma Linealis."
- 390—Hale, Throp & Co., *Christchurch*.
- Cables
 - Lines
 - Ropes
 - Twines.
- 391—King, George, *Christchurch*.
- New Zealand Flax dyed in a number of colours.
- 392—Monaghan, Hugh, *N. E. Valley, Dunedin*.
- Twines and Clothes Lines.
- 393—Moore, Edward, *Waipawa, Hawkes Bay*.
- Rope from New Zealand Flax
 - Reaping and Binding Twine
 - Shop Twine.
- 394—Oldham & Sons, A., *Tuakau, Waikato*.
- Flax Matting
 - Binder Twine.
- 395—Saarland Brothers, *Nelson*.
- Twine
 - Rope.

396—Webber, William, *New Plymouth*.

- 4 Coils of Rope manufactured from New Zealand Flax
- 1 Bundle of Twine manufactured from New Zealand Flax
- 1 Bundle of Curled Hair.

Class 31.—Worsted Yarn and Fabrics.

397—Kaiapoi Woollen Manufacturing Company, Limited, *Christchurch*.

- Worsted Yarn and Fabrics.

398—Mitchell, Nimrod, *Woolston, Canterbury*.

- Carpets.

399—Mosgiel Woollen Factory Company, Limited, *Mosgiel, Otago*.

- Worsted Yarn and Fabrics.

Class 32.—Woollen Yarn and Fabrics.

400—Barber, W. H. P., *Wellington*.

- Samples of Dyed New Zealand Woollen Yarn.

401—Bush, Thomas, *Wanganui*

- Woollen Knitted Goods.

402—Fawcett, James, *Christchurch*.

- Horse Clothing.

403—Kaiapoi Woollen Manufacturing Company, Limited, *Christchurch*.

- Woollen Yarn and Fabrics.

404—Mosgiel Woollen Factory Company, Limited, *Mosgiel, Otago*.

- Woollen Yarn and Fabrics.

405—Ross & Glendining, *Dunedin*.

- Woollen Yarn and Fabrics.

Class 33.—Silk and Silk Fabrics.

406—Stodart, Francis, *Ponsonby, Auckland*.

- Raw Silk, produced by about 2000 worms, reared and fed by Exhibitor.

Class 34.—Shawls.

407—Kaiapoi Woollen Manufacturing Company, Limited, *Christchurch*.

- Shawls.

408—Mosgiel Woollen Factory Company, Limited, *Mosgiel, Otago*.

- Shawls.

409—Ross & Glendining, *Dunedin*.

- Shawls.

Class 35.—Lace, Net, Embroidery, and Trimmings.

410—Robert, Charles W., *Pabnerston North*.

- Military and Naval Embroidery and Badges in Gold Silver, Silk, and Worsted.

411—Service, William, *Auckland*.

- Fancy Frilling.

412—Townsend, Emma A., *Hamilton, Waikato*.

- Lady's Reticule in Macrame Lace.

418—Townsend, George K., *Hamilton, Waikato*.

- Bracket of Macrame Lace.

Class 36.—Hosiery and Underclothing, and Accessories of Clothing.

414—Greenshields, Walter, *Auckland*.

- New Zealand Patent "Automatic" Suspenders

- New Zealand Patent "Diamond" Suspenders
- New Zealand Patent "Hygienic" Shoulder Brace
- Ladies' New Zealand Patent "Hygienic" Shoulderettes
- Ladies' New Zealand Patent "Hygienic" Shoulder Brace and Skirt Supporter
- Ladies' New Zealand Patent "Hygienic" Kneelets.
- 415—Kaiapoi Woollen Manufacturing Company, Limited, *Christchurch*.
- Hosiery.
- 416—Mosgiel Woollen Factory Company Limited, *Mosgiel, Otago*.
- Hosiery and Accessories.
- 417—Pickard, George, *Auckland*.
- Gent's Socks and Long Hose
- Boys' Socks and Long Hose
- Ladies' Hose.
- 418—Ross & Glendining, *Dunedin*.
- Hosiery.
- 419—Sharland, Mrs M. A., *Christchurch*.
- Corsets and Surgical Belts, &c.

Class 37.—Clothing for both Sexes; Waterproof Clothing; Artificial Flowers and Feathers; Wigs and Works in Hair; Head-dresses; Boots and Shoes; Native Costumes.

- 420—Barber, W. H. P., *Wellington*.
- Feathers—Cleaned, Dyed, and Curled.
- 421—Bertinshaw, George, *Dunedin*.
- Hats of Fur, Wool, Rabbit, and Hare-skins, shewing process of manufacture from raw material.
- 422—Boyd, Matthew, *Wellington*.
- Heels and Toeplates for Boots and Shoes.
- 423—Cartwright, Edward T., *Auckland*.
- Boot and Shoe Uppers.
- 424—Crocker, George, *Grahamstown, Thames*.
- Miners' Boots for Mineral Water. Made of leather that is not destroyed by the minerals in the water of drives, shafts, &c., in mines.
- 425—Eagleton, Randolph, *Auckland*.
- One case of Human Hair Goods, consisting of Wigs, Scalps, Fringes, Frizzettes, Tails, &c.
- 426—Ellison, Charles J., *Wellington*.
- Boot and Shoe Uppers.
- 427—Fisher, David P., *Auckland*.
- Dyed Ostrich Feathers.
- 428—Georgeson & Co., George, *Wellington*.
- Clothing.
- 429—Gill, John R., *Wellington*.
- Manufactured articles of Clothing made in Wellington.
- 430—Hannah & Co., R., *Wellington*.
- Boots and Shoes.
- 431—Hill & Sons, Charles, *Wellington*.
- Hats and Caps.
- 432—Huxley, James, *Wellington*.
- Clothing.
- 433—Hyde, D. D., *Wellington*.
- Hair work, Wigs, and Perfumery.
- 434—Jones & Ashdown, *Wellington*.
- Clothing.
- 435—Kaiapoi Woollen Manufacturing Company, Limited, *Christchurch*.
- Clothing.
- 436—Lightband, Allan, & Co., *Christchurch*.
- Boots and Shoes.

- 437—Lindsay, Alfred, *Wellington*.
- Boots and Shoes, principally made of Colonial Leather.
- 438—Litchfield & Son, *Blenheim*.
- Millinery.
- 439—Matson, J. T., *Papanui, Canterbury*.
- Ostrich Feathers.
- 440—New Zealand Clothing Factory, *Dunedin*.
- Manufactured Clothing.
- 441—Nicholls, William, *Christchurch*.
- Boots and Shoes.
- 412—Northern Boot & Shoe Manufacturing Company, *Auckland*.
- Collection of Boots, Shoes, and Uppers.
- 443—Potter, Joseph E., *Wellington*.
- Boots and Shoes. The whole of the leather used in the bottoms is manufactured in New Zealand, and also the tops of those Numbered 11, 13, 39, 40, 41, 42, 46, 57, 66, 69, 70 and 71.
- 444—Poynter, George H., *Wellington*.
- Boots. Hand-sewn.
- 445—Price, Henry T., *Wellington*.
- Hair-work, Wigs, &c.
- 446—Ross & Glendining, *Dunedin*.
- Clothing.
- 447—Sloan, J. & R., *Wellington*.
- Clothing.
- 448—Staples, William & John, *Wellington*
- Boots and Shoes.
- 449—Wilson & Richardson, *Wellington*.
- Clothing.

Class 38.—Jewellery and Precious Stones.

- 450-Kohn, Siegfried, *Wellington*.
- Jewellery
- Silver Plate.
- 451—Partridge & Son, James T., *Christchurch*.
- Manufactured Gold and Silver Goods, and Articles of Vertu.
- 452—Sandstein, Marcus, *Christchurch*.
- Sterling Silver Epergne and Plateau
- Sterling Silver Coffee Pot, made of New Zealand Silver.
- 453—Tutenberg, Anton, *Auckland*.
- Walking Sticks made of New Zealand Woods, inlaid and silver-mounted
- Bronze and Silver Medals
- Gold and Silver Work.
- decorative feature

Department IV.

Alimentary Products.

Class 42.—Cereals, Farinaceous Products, and Products derived from them,

- 454—Akaroa Local Committee, *Canterbury*.
- Alimentary Products.
- 455—Allen & Co., Richard, *Timaru, Canterbury*.
- Flour manufactured by Patent Process from South Canterbury Wheats.
- 456—Aulsebrook & Co., John, *Christchurch*.
- Flour.

- 457—Baker, James W., *Fordell, Wellington.*
 - 100 lbs Flour
 - 1 Bag Fine Oatmeal
 - 1 Bag Coarse Oatmeal
 - Wholly of New Zealand-grown Wheat and Oats.
- 458—Banks, E. H., *Christchurch.*
 - Grain
 - Pearl Barley
 - Split Peas
 - Seeds.
- 459—Bennie, John, *Wanganui.*
 - Malt
 - Hops.
- 460—Boness, George, *Awahuri, Wellington.*
 - 4 Samples of Pressed Hops.
- 461—British & New Zealand Mortgage & Agency Company, *Invercargill.*
 - Grain
 - Seeds.
- 462—Carswell, White, & Co., *Invercargill.*
 - Agricultural Produce.
- 463—Caselberg & Co., M., *Masterton.*
 - Grain.
- 464—Cleave, Robert, *Invercargill.*
 - Cereals.
- 465—Common, Shelton, & Co., *Gisborne.*
 - Poverty Bay Perennial Ryegrass Barley.
- 466—Connell, Henry, *Oamaru.*
 - Grain grown in the Oamaru District.
 - Seeds grown in the Oamaru District.
- 467—Cuddon & Co., W., *Christchurch.*
 - Malt.
- 468—Dodson & Co., Henry, *Blenheim.*
 - Hops
 - Malt.
- 469—Dodson & Son, J. R., *Nelson.*
 - 1 Bale Hops, Season 1885
 - 1 Case Malt Season 1885
 - 1 Bag Barley Season 1885
- 470—Duigan, James, *Wanganui, Wellington.*
 - Flour made from Wheat grown in the Wanganui District.
- 471—Duncan & Son, *Christchurch.*
 - Grass Seeds.
- 472—Dwyer, Matthew, *Frankton, Otago.*
 - Barley
 - Wheat.
- 473—Evans, William, *Timaru.*
 - Cereals.
- 474—Fitchett, Ashton B., *Ohiro, Wellington.*
 - Sample of Silage or Compressed Grass.
- 475—Geraldine District Committee, *Canterbury.*
 - Samples of Grain.
- 476—Gerse, John J., *Wanganui.*
 - Wheat Starch
 - Corn Flour
 - Dextrine.
- 477—Griffin & Sons, *Nelson*
 - Flour and Milling Products.
- 478—Harley, Alfred, *Waimea West, Nelson*

- 1 Bale 1885 Nelson Hops, known as "Green Bine Grape."
479—Harley & Sons, *Nelson*.
- 1 Bale Hops.
- 2 Sacks Barley.
480—Harley, Thomas H., *Nelson*.
- 1 Bale Hops, Season 1885
- 1 Sack Barley.
481—Hayhurst, John, T. M., *Temuka Canterbury*.
- Grain.
482—Hazlett, William K., *Lime Hills, Southland*
- Perennial Ryegrass Seed
- Oats.
483—Holmes & Bell, *Blenheim*.
- Grain.
484—Laird, James, *Wanganui*.
- Seeds
- Grasses
- Bulbs, &c.
485—Lock Brothers, *Nelson*.
- 1 Sack Barley
- 1 Sack Oats.
486—Manning & Co., Samuel, Limited, *Christchurch*.
- Malt
- Hops
- Barley.
487—Marshall & Copeland, *Dunedin*.
- 1 Bag Barley
- 1 Bag Malt.
488—Newport, James, *Nelson*
- 1 Bale of Hops.
489—New Zealand Farmers' Co-Operative Association of Canterbury, *Christchurch*.
- Collection of Colonial Seeds.
490—New Zealand Loan & Mercantile Agency Company, *Christchurch*.
- Cereals Produce.
491—New Zealand Loan & Mercantile Agency, *Invercargill*.
- Agricultural Produce.
492—Nimmo & Blair, *Dunedin*.
- Seeds.
493—Panhurst, George, *Richmond, Nelson*.
- Hops, Season 1885.
These Hops dried by special process costing 4s per 100 bushels, where as ordinary process costs 25s per 100 bushels. These Hops, when picked, run 2lbs to the bushel.
- 494—Parker, William B., *Blenheim*.
- Oats
- Potatoes.
495—Paul, Edmund, *Blenheim*.
- Wheat
- Barley
- Oats
- Peas.
496—Piper, John, *Clyde, Wairoa, Haiokes Bay*.
- Kent Golding Hops.
497—Ransom, Thomas P., *Grovetown, Marlborough*.
- Pale Malt, made wholly of New Zealand Barley.
498—Redwood, Charles, *Blenheim*.
- Wheat
- Barley
- Oats

- Malt
- Potatoes.
- 499—Royal Flour Mills, *Timaru*.
- Flour—Patent Roller Process
- Bran and Sharps.
- 500—Smythe & Co., *Nelson*.
- Hops
- Barley.
- 501—Southland Agricultural & Pastoral Association, *Invercargill*.
- Cereals and other Products.
- 502—Stafford, William, *Stoke, Nelson*.
- 2 Bales Hops.
- 503—Tanner, Thomas, *Hastings, Hawke's Bay*.
- Sample of Hops
- Sample of Grass Seed.
- 504—Wairoa Local Committee, *Hawke's Bay*.
- Specimens of Cereals and Hops grown in the Wairoa District.
- 505—Ward, Luke, *Awahuri, Wellington*.
- 4 Samples of Pressed Hops.
- 506—Watkins, James, *Timaru*.
- Farina (Wheatened Corn Flour), manufactured from New Zealand wheat
- Snow White Gloss Starch, manufactured from New Zealand Wheat.
- 507—Whibley Brothers, *Ashurst, Manawatu*.
- Packet Hops. Grown and packed by Exhibitors (241bs).
- 508—Whittingham Brothers & Instone, *Thornbury, Otago*.
- Cereals.
- 509—Wilkin & Co., Robert, *Christchurch*.
- Collection of Agricultural Seeds grown in New Zealand, but principally in the Province of Canterbury.
- 510—Wood, William H., *Christchurch*.
- Cocksfoot Grass Seed.

Class 43.—Bread and Pastry.

- 511—Aulsebrook & Co., John, *Christchurch*.
- Biscuits.
- 512—Bycroft & Co., John, *Auckland*.
- Biscuits, Fancy and Plain. Contained in about 80 tins.
- 513—Dustin, William S., *Wanganui*.
- Bread and Cake.
- 514—Godber, James, *Wellington*.
- Wedding Cakes
- Assortment of Ornamental Cakes.
- 515—Griffin & Sons, *Nelson*.
- Biscuits, Cakes, &c.
- 516—Heron, James, *Napier, Haiokes Bay*.
- Biscuits.
- 517—Newbury, Philip J., *Dunedin*.
- Sample of Cracknell Biscuits.
- 518—Wellington Biscuit and Confectionery Company, *Wellington*.
- Biscuits.
- 519—Wright, William, *Dunedin*.
- Biscuits
- Bride's Cake
- Patent Self-raising Flour.

Class 44.—Preserved Fatty Substances used as food; Milk, Butter, Cheese, and Eggs.

- 520—Akaroa Local Committee, *Canterbury*.
- Alimentary Products.
- 521—Ashburton Cheese & Butter Factory Company, *Canterbury*.
- Cheese.
- 522—Banks & Dimock, *Kaiwarawara, Wellington*.
- Lard.
- 523—Brown, Arthur W., *Wellington*.
- Tinned Butter.
- 524—Caselberg & Co., M., *Masterton*.
- Sample of Butter.
- 525—Cook County Cheese Butter & Bacon Factory Company, *Gisborne*.
- Cheese.
- 526—Geraldine Dairy & Bacon Curing Company, *Geraldine, Canterbury*.
- 10 Cheeses, value 5#x00BD;d per lb.
- 527—Goodin, Robert, *Carterton*.
- 1 Jar containing 21lb. Salt Butter.
- 528—Greytown Cheese & Butter Factory, *Greytown, Wairarapa*.
- 2 Cheeses.
- 529—Katikati Cheese & Bacon Manufacturing Company, *Kati Kati, Tauranga*.
- 4 Cheeses.
- 530—Manutahi Cheese Factory, *Lepperton, Taranaki*.
- Cheese.
- 531—Olson, Edward, *Taranaki*.
- Full Milk Cheese, on Cheddar Principle.
- 532—Stevens, Philip, *Palmerston North*.
- Cheese.
- 533—Taratahi Dairy Company, Limited, *Carterton*,
- 3 Cheeses.
- 534—Tauranga Cheese, Butter, & Bacon Manufacturing Company, *Tauranga*.
- Cheeses.
- 535—Temuka Butter, Cheese, & Bacon Curing Company, *Geraldine County*.
- Cheese.
- 536—Wanganui Dairy Factory Company, *Okoia*,
- 3 Cheeses.
- 537—Woodville Cheese & Bacon Factory Company, *Wellington*.
- Cheese.

Class 45.—Preserved Meat and Fish.

- 538—Akaroa Local Committee, *Canterbury*.
- Alimentary Products.
- 539—Anglo - Italian Meat Preserving Company. *Wellington*.
- Preserved Meats
- Preserved Soups, &c.
- 540—Banks & Dimock, *Kaiwrawara, Wellington*.
- Hams and Bacon.
- 541—Beetham, W. & H., *Masterton*.
- Sausages.
- 542—Blake & Sons, C. R., *Picton, Marlborough*.
- Preserved Fish.
- 543—Cummins, Thomas D., *Wanganui*
- Hams
- Bacon.
- 544—Foster & Gosling, *Blenheim*.
- Preserved Rabbits.
- 545—Gear Meat Preserving & Freezing Company of New Zealand, Limited, *Wellington*
- Corned Beef in Tierces
- Bacon

- Smoked Provisions
- Frozen Meat
- Game
- Preserved Meats and Fish
- Soups in Tins.
- 546—Green, Thomas H., *Christchurch*.
- Hams and Bacon, fed and cured in Canterbury.
- 547—Hellaby, R. & W., *Auckland*.
- Preserved Meats in Tins.
- 548—McConnell Brothers, *Christchurch*.
- Bacon, Hams, and Pork.
- 549—McFarlane, A. & J., *Dunedin*.
- Hams and Bacon.
- 550—Masefield & Sons, *Helensville, Kaipara*.
- 8 doz. Mullet, in 1lb Tins
- 4 doz. Mullet 2 1/2lb Tins
- 5 doz Smoked Mullet
- 5 doz Smoked Schnapper.
- 551—Mitchell & Richards, *Wanganui*.
- Preserved Meats
- Preserved Soups.
- 552—Moore, Frederick A., *Wellington*.
- Skin-packed Portable Condensed Soups.
- Containing the largest amount of nourishment in the smallest amount of space.
- 553—New Zealand Frozen Meat & Storage Company, *Auckland*.
- Preserved Meats and other goods.
- 554—Norgrove, Horace, *Picton, Marlborough*.
- Salt Fish in kegs, 1cwt.
- Salt Herrings in kegs, 1cwt.
- Red Herrings in tins (4 doz.)
- Fresh Herrings in tins each 1lb.
- Herrings in tin *à la sardine*, each 1 1/2lb.
- 555—Retemeyer, W. B., *Greatford, Wellington*.
- Hams and Bacon.
- 556—Shaw, Dugald, *Timaru*.
- Hams
- Bacon.
- 557—Sheedy, Edward, *Dunedin*.
- Hams and Bacon.
- 558—Thomson Brothers, *Port Chalmers*.
- Fish in Tins.
- 559—Wellington Meat Preserving & Refrigerating Company, *Wellington*.
- Preserved Meat.
- 560—Wilson, James, *Newton, Auckland*.
- Variety of Preserved Fish.
- 561—Young, Bazzet N., *Auckland*.
- Calfsfoot Jellies.

Class 46.—Preserved Vegetables and Fruit.

- 562—Akaroa Local Committee, *Canterbury*.
- Alimentary Products.
- 563—Anchor Preserving & Confectionery Company, *Nelson*.
- Preserved Fruits.
- 564—Driver, Henry, *Thames*.
- Preserved Fruits.
- 565—Foster & Gosling, *Blenheim*.
- Preserved Fruits.

- 566—Gear Meat Preserving & Freezing Company of New Zealand, Limited, *Wellington*.
- Preserved Fruit.
- 568—Green, George, *Motueka, Nelson*.
- Preserved Fruits.
- 569—Hudson, J. & R., *Thames*.
- Canned Fruits.
- 570—Kirkpatrick & Co., S., *Nelson*.
- Preserved Fruits.
- 571—Knight, Mrs. Hugh D., *New Plymouth*.
- 1 Case containing 20 Bottles Preserved Fruit.
- 572—Masefield & Sons, *Helensville, Kaipara*.
- Preserved Fruit in Tins.
- 573—New Zealand Pickle & Preserving Company, *Christchurch*.
- Bottled Fruits.
- 574—Smith, Robert N., *Thames*.
- Preserved Peaches.
- 575—Tyer, Alfred, *Auckland*.
- Bottled Fruits, grown in Auckland Province.

Class 47.—Condiments and Stimulants; Sugar and Confectionery; Coffee, Spices, Baking Powder, and other Food Products.

- 576—Adamson, James, *Hastings, Hawke's Bay*.
- Honey.
- 577—Akaroa Local Committee, *Canterbury*.
- Alimentary Products.
- 578—Akersten, William, *Nelson*.
- Jams
- Pickles
- Condiments.
- 579—Anchor Preserving & Confectionery Company, *Nelson*.
- Jams
- Jellies
- Tomato Sauce
- Tomato Chutney
- Confectionery
- Boiled Sugars.
- 580—Bacon, John J., *Wellington*.
- Aërated Waters
- Essences
- Cordials.
- 581—Bagnall Brothers & Co., *Thames*.
- Honey and Apiarian Appliances.
- 582—Barrett, Edwin, *Wanganui*.
- Samples of Comb Honey
- 3lbs Stout Foundation
- 1lb Thin
- 16lbs in 1lb Sections
- Sample of Extracted Honey 16lb in 2lb Bottles.
- 583—Beetham & Co., Albert, *Auckland*.
- Tomato Sauce, &c.
- 584—Cooper, MRS. George, *Wellington*.
- Cordials
- Aërated Waters, &c.
- 585—Crease, Edwin H., *Wellington*.
- Coffee

- Spices
- Baking Powder, &c.
- 586—Curtis & Co., Alfred, *Wellington*.
- Confectionery.
- 587—Dixon, George, *Wellington*.
- Aërated Waters
- Cordials, &c.
- 588—Driver, Henry, *Thames*.
- Jams.
- 589—Fear, Francis, W., *Wellington*.
- Sample of Tonic Beer.
- 590—Firth, Josiah C., *Mat a mat a Apiary, Auckland*.
- Pure White Clover Honey.
- 591—Gilberd & Co., *Napier, Rawke's Bay*.
- Aërated Waters
- Syrups
- Cordials.
- 592—Gomez, Joseph, *Bulls, Wellington*.
- Aërated Waters and Cordials
- Champagne Cider
- Ginger Ale
- Aërated Sarsaparilla.
- 593—Gordon, F. M., *Oamaru, Otago*.
- Dunack Picnic Sauce
- Pickles.
- 594—Green, George, *Motueka, Nelson*.
- Jams, manufactured by Exhibitor
- Pickles manufactured by Exhibitor
- Sauces manufactured by Exhibitor
- 595—Gregg & Co., William, *Dunedin*.
- Coffees
- Spices.
- 596—Hayr & Co., Harry H., *Auckland*.
- Honey.
- 597—Hodren, Edwin, *Wanganui*.
- Aërated Waters and Cordials.
- 598—Hollard Brothers, *Petone*.
- Preserved Jams and Jellies, &c.
- 599—Kirkpatrick & Co., S., *Nelson*.
- Jams Jellies
- Tomato Chutney
- Tomato Sauce
- Confectionery
- Boiled Sugars.
- 600—Knight, MRS. Hugh D., *New Plymouth*.
- 1 Case, containing 20 Glasses Jams.
- 601—Knight, Samuel, *Awahuri, Wellington*.
- Sauce for Meats, Gravies, &c.
- 602—Koefoed, Harold L., *Thames, Auckland*,
- 2 doz. Tomato Sauce.
- 603—Lees & Co., *Ponsonby, Auckland*.
- Excelsior Worcestershire Sauce.
- 604—Lezza, Salvatore, *Christchurch*.
- Showing the Process of Manufacturing Fancy Confectionery
- Fancy Confectionery.
- 605—Litchfield & Son, *Blenheim*.
- Coffee
- Pepper.

- 606—Love, John T., *Wellington*.
- Non-Alcoholic Beverages and Stimulants.
- 607—Mackenzie & Co., D., *Auckland*.
- Tomato Sauce.
- 608—Maclean Pickle & Preserving Company, *Christchurch*.
- Pickles
- Sauces
- Vinegar
- Chutney
- Jams
- Cordials
- Syrups
- Bitters
- Condiments.
- 609—New Zealand Aërated Water & Cordial Company, *Wellington*.
- Aërated Waters and Cordials.
- 610—New Zealand Pickle & Preserving Company, *Christchurch*.
- Pickles
- Sauces.
- 611—New Zealand Sugar Company, *Auckland*.
- Samples of Sugar Cane
- Raw and Refined Sugars.
- 612—Norfolk Island Commitee.
- Guana Jelly
- Arrow Root.
- 613—Palmer, Charles, *Thames, Auckland*.
- Syrups
- Boiled Confectionery.
- 614—Rayner, Alfred, *Blenheim*.
- Aërated Waters and Cordials.
- 615—Red Cross Company, *Eden Terrace, Auckland*.
- 2 Cases Sauce 1 Case Vinegar
- #x00BD; dozen ¼lb. Curry Powder.
- 616—Smith, Robert N., *Thames*.
- Assorted New Zealand Jams.
- 617—Stevenson, George, *Gisborne, Poverty Bay*.
- Honey in Comb
- Honey in Bottle
- Honey in Tins.
- 618—Strang, David, *invercarail*.
- Prepared Coffees
- Peppers
- Spices, &c.
- 619—Strike & Hamilton, *Wellington*.
- Samples of Cordials—
 - Raspberry Syrup
 - Raspberry Vinegar
 - Peppermint
 - Cloves
 - Pine-Apple
 - Lime Juice
 - Ginger Wine
 - Ginger Brandy.
- Samples of Mineral Waters—
 - Soda Water
 - Lemonade
 - Ginger Ale.
- 620—Strike, John, *Wellington*.

- Vinegar and Sauce.
621—Tait, Robert, *Lyttelton, Canterbury*.
- Essence of Coffee, in small bottles.
622—Thomson & Co., *Dunedin*.
- Aërated Waters and Cordials.
623—Thompson, James, *Masterton, Wairarapa*.
- Aërated Waters
- Ginger Beer
- Cordials.
624—Wellington Biscuit & Confectionery Company, *Wellington*.
- Confectionery.
625—Whitlock, Frederick, *Wanganui*.
- Sauces Fickles.
626—Whyte & CO., William, *Dunedin*.
- Coffees and Spices.
627—Wilson & Son, Thomas, *Wellington*.
- Confectionery.
628—Young, Annie, *Wanganui*.
- Sample of Cocoa-nut Ice.

Class 48.—Fermented Drinks.

- 629—Akaroa Local Committee, *Canterbury*.
- Alimentary Products.
630—Barton, C. J. W., *Hamilton, Waikato*.
- Bottled Ale, brewed from Colonial Malt and Hops.
631—Blunck, D., *Hokitika, Westland*.
- 8 doz. Locally grown and made Wines.
632—Card, Albert B., *Wellington*.
- 6 Bottles Ginger Wine
- 6 Bottles Horehound Beer.
633—Cochran, Edward W., *Caversham*
- 1 Hhd. XXXX Strong Ale
- 1 Hhd. XXXX Medium Ale
- 1 Hhd. XXX Light Ale
- 1 Small Case Bottled Ale
- 1 Small Case Stout.
634—Crawford, William F., *Gisborne*.
- Ale and Stout.
635—Dodson & CO., Henry, *Blenheim*.
- Beer.
636—Dodson & Son, J. R., *Nelson*.
- 1 Keg Ale, 18 gallons.
637—Edmonds, Caleb, *Petone, Wellington*.
- Ales and Stout.
638—Ehrenfried Brothers, *Thames*.
- Beer.
639—Gilberd, Henry J., *Taradale, Hawke's Sag*.
- 2 Doz. Bottles of Unfermented Wine, made from locally grown grapes. Suitable for Sacramental, Medicinal, and Domestic use.
640—Harley & Sons, *Nelson*.
- 1 Hhd. Ale.
641—Innes & Co., Francis, *Sydenham, Canterbury*.
- 2 Hhds Ale
- 1 Hhds Porter.
642—Joel, Maurice, *Dunedin*.
- Ale and Porter, in Bulk and Bottle.
643—Junction Brewery Company, *Wellington*.

- 1 Hogshead Beer
- 1 Hogshead Porter.
- 644—Keast & McCarthy, *Dunedin*.
- Beer and Stout.
- 645—Kortegast, William C. J., *Hokitika*.
- 1 Hhd. Colonial Brewed Ale.
- 646—Leyet & Sons, C., *Wellsford, Kaipara*.
- Wines Manufactured by themselves from Grapes grown in their own vineyard.
- 647—Macarthy, Thomas G., *Wellington*.
- Beer.
- 648—McGayin, McGregor & Smith, *Dunedin*.
- 1 Hhd. Strong Ale
- 1 Hhd. Mild Ale
- 649—McGlashan, John, *Farndon, Hawke's Bay*.
- Sparkling Horehound Beer, in quarts and pints (nonalcoholic).
- 650—Maginnity, John, *Wellington*.
- Invercargill Ale
- Dunedin Ale
- Dunedin Stout
- Junction Brewery Stout.
- 651—Manning & Co., Samuel, Limited, *Christchurch*.
- Ale and Stout, in Bulk and Bottle.
- 652—Marshall & Copeland, *Dunedin*.
- 1 Hhd. XXXX Ale.
- 1 Hhd Pale Ale.
- 653—Martin, John T., *Invercargill*.
- Ale.
- 654—Newbiggin & Co., E., *Napier, Hawke's Bay*.
- Ale and Porter, brewed in Napier.
- 655—Pascoe & Co., William H., *Palmerston North*.
- 2 Hhds. Pale Bitter Ale
- 1 Hhds Stout.
- Brewed from Colonial Malt and Hops.
- 656—Preston, Frank J., *Wellington*.
- Dunedin Ale and Stout, bottled by the Exhibitor.
- 657—Soler, Joseph, *Wanganui*.
- Wines, manufactured by the Exhibitor from Grapes grown in Wanganui only.
- 658—Speight & Co., James, *Dunedin*.
- 6 Hhds. Ale. Wholly New Zealand products.
- 659—Staples, John, *Thorndon, Wellington*.
- Ale and Porter, in Bulk and Bottle.
- 660—Strachan & Chaldecott, *Wanganui*.
- 1 Doz. Quarts Ale
- 1 Doz Pints Ale
- 1 Doz Quarts Stout
- 1 Doz Pints Stout
- 661—Strachan, William, *Dunedin*.
- Ale and Stout.
- 662—Strike & Hamilton, *Wellington*.
- 2 Hhds. Beer
- Aërated Beer
- Aërated Stout
- Aërated Hack
- Aërated Verdiliho
- New Zealand Wines
- 663—Swan, George H., *Napier, Hawke's Bay*.
- Ale and Porter.
- 664—Tod, Andrew, *Wanganui*.

- Wines of Local Produce.
665—Vincent & Co., *Christchurch*.
- 3 Samples of Bulk Ales.
666—Wilson & Co., James, *Dunedin*.
- Hogsheads of Ale
- Bottled Ale.
decorative feature

Special Art Section.

Special Art Section.

- 667—Allan, Geollge, *Dunedin*.
- Architectural Front of Warehouse.
668—Allen, Edward T., *Carlyle street, Napier*.
- Ornamental Frame, suitable for illuminated address or water-colour portrait.
669—Ansell, Emma J., *Dunedin*.
- Two Sepia Drawings of Landscapes. Copies from Sepias. One Piece of Illuminated Printing in Colours. Pen and Brush Work. All Printing done by hand and pen.
670—Archibald, M. H., *Wellington*.
- Oil Painting: Stonycroft Bridge, Westmoreland.
671—Armstrong, MRS. C. C., *South Dunedin*.
- 3 Pictures, Fern Designs.
672—Atkins & Clere, *Wanganui*.
- A Pen-and-ink Drawing, by F. de J. Clere, A.R.I. B.A., of a house built near Marton, N.Z., in Messrs Atkins and Clere's Patent Composite Method of Construction
- A Pen-and Ink Drawing, by F.de J. Clere, A.R.I.B.A., of St. John'd Church, Feilding.
673—Baillie, John, *Wellington*.
- Oil Painting: Tararua Ranges, from Clyde Quay (original)
- Water-Colour Drawing: Sundown (original).
674—Baker, W. G. *Wellington*
- 675—Barr, George M., *Dunedin*.
- Plan and Section shewing Otago Harbour Works.
676—Barraud, Charles D., *Wellington*.
- Water-Colour Paintings from sketches made on the spot—
677—Barraud, Jessie, *Wellington*.
- Drawing in Monochrome, Mount Cook Two Placques.
678—Barraud, Noel, *Wellington*.
- Original Water-Colour Landscapes from Nature—
679—Barraud William P., *Wellington*.
- Water-Colour Landscape Pictures, viz.,
680—Bartlett, Robert II., *Auckland*.
- Photographic Portraits and Landscapes.
681—Bennett, Miss E., *Johnsonville, Wellington*.
- 682—Bennett, Miss H. S., *Johnsonville, Wellington*.
- 683—Best, Madeline, *Wellington*.
- Painting on Material
- Terra Cotta Vases.
684—Best, Samuel, *Dunedin*.
- Crayon Portrait of the Premier
- Illuminated Address.
685—Bethune, Alexander W., *Wellington*.
- Mechanical Drawing.
686—Blackey, Joseph, *Horokiwi, Wellington*.
- Sculpture Work.

- 687—Bloomfield, Charles, *Auckland*.
- 688—Bock, Alered, *Auckland*.
- Photographs of Natural Wild Flowers.
- 689—Boldini, Louis, *Dunedin*.
- Front Elevation of Messrs Butterworth Brothers' New Warehouse, Dunedin
 - Front Elevation of the Grand Hotel, Dunedin
 - Front Elevation of Proposed New Building for the New Zealand Shipping Company, Dunedin.
- 690—Bothamley, Arthur T., *Wellington*.
- Landscape Photographs.
- 691—Brandon, Constance, *Wellington*.
- One Set (1 dozen) Hand Painted D'Oylies, on Silk or Satin.
- 692—Brandon, E. *Wellington*.
- 693—Branfill, Col., B.A., *Nelson*.
- 694—Brown, William E., *Nelson*.
- Photographs, Miniature colouring.
- 695—Beowning, Kate M., *Nelson*.
- Study from Still Life, Original
 - Group of articles on table (Terra Cotta Vase, &c.).
- 696—Burton Bros., *Dunedin*.
- Photographs.
- 697—Bush, William, *Timaru*.
- Oil Painting reputed to be over 200 years old, subject: Cupia and Venus.
- 698—Cambridge, Allan A., *Christchurch*.
- Oil Painting, Portrait of the late Rev. Buller.
- 699—Cane, Thomas, *Christchurch*.
- Water-colour Drawing
 - Oil Painting
 - Etching, printed from Copper-plate.
- 700—Carnell, Samuel, *Napier, Hawke's Bay*.
- Photographs in 3 show-cases.
- 701—Carrigham, H., *Auckland*.
- Photographs.
- 702—Chapman, Ernest A., *Burkes Pass, Canterbury*.
- Water-colour Paintings.
- 703—Chapman, George T., *Auckland*.
- Photographs of New Zealand scenery.
- 704—Chapman, William E., *Christchurch*.
- Shaded Study from the antique (Michael Angelo's Greek Slave).
- 705—Clark, Mrs. J. M., *Remuera, Auckland*.
- Two Oil Paintings, viz.—
 1. "Good Night"
 2. "A Summer's Eve."
- 706—Cobb, Mrs. Joseph E., *Napier*.
- Photographs, Vignette Studies from Life.
- 707—Collis, William A., *New Plymouth*.
- Photographic "Views of New Plymouth and Taranaki Scenery
 - Enlarged Photograph, finished in Water-colour.
- 708—Corporation of Invercargill, *Invercargill*.
- Photographs of Invercargill.
- 709—Dasent, Eye Lin, *Karon, Wellington*.
- Gipsy Table in Black and Gold, Chinese Figures.
- 710—Davy, Alice, *Wellington*.
- Landscape Paintings in Oil, viz.—
 - Crayon Head from Copy Plaquits in Oil, viz.—
 - Moonlight Scene, Auckland Harbour
 - Lake Mavora, Otago
 - Lake Rotorua.
- 711—Deakin, Florence M., *Christchurch*.

- Drawing, Coloured Crayons: "The Wetterhorn " Drawing Pencil: "A Street in Balavia" (from a photograph)
- Painting, Water Colours (From Nature): Wisteria Cross, Water-Colours.
- 712—Dougall, William, *Invercargill*.
- 1 Frame Portraiture
- 1 Frame Architectural Photography.
- 713—Dransfield, Miss Stella, *Wellington*.
- 714—Duval, Lewis H., *Wellington*.
- Etching in Sepia of view of Greenwich Royal Observatory. Original.
- 715—Edwin, Robert A., *Wellington*.
- Gilding on satin, original design and work of exhibitor.
- 716—Elmsly, Thomas, *Sydenham, Canterbury*.
- 3 Landscapes in Oils, all drawn from Nature.
- 717—England, Mrs. F. T., *Wellington*.
- Cabinet made of New Zealand Woods, hand-painted in Oils by Exhibitor, original design. For Exhibition only.
- 718—Fereday, Richard W., *Christchurch*.
- 1. Water-Colour Painting, being a study for a larger picture, " Accusing Conscience," representing Eve's first sight of death after the fall. Original.
- 2. Water-Colour Painting, being a Landscape study direct from Nature "Mount Somers," from Taylor's Stream looking over Alford Forest. Original.
- 719—Ferrier, William, *Timaru*,
- Photographic Views.
- 720—Fox, Morris, *Wellington*.
- Lithographic Drawings.
- 721—Gapes William, *Geraldine, Canterbury*.
- Four Water-Colour Drawings, viz.,
 1. Ben Lomond, from chromograph after E. Penley
 2. Sydfardinfa from chromograph after E. Penley
 3. Mount Four Peaks, in Geraldine District
 4. View from the Kakahu Marble District.
- 722—Gardner, Mrs A., *Wellington*.
- Study in Crayon.
- 723—Geisher, Wilhelm, *Athenceum, Wellington*.
- Oil Paintings.
- 724—George & Walton, *Christchurch*,
- Photographs.
- 725—George, Thomas, *Dunedin*.
- Art Illumination.
- 726—Georgeson, Peter C. McE., *Wellington*.
- A Specimen of minute Penmanship.
- 727—Gibb, John, *Christchurch*.
- 728—Gibb, William M., *Christchurch*.
- Oil Painting: Portrait of Sir Julius Vogel
- Oil Paintings: Portraits and Landscapes.
- 729—Gifford. Edward A., *Auckland*.
- 3 Water-Colour Paintings, viz.:
- 730—Gore, Henry M., *Wellington*.
- 731—Gowland, Annie E., *Patea, Taranaki*.
- Oil Painting of Mount Arthur, Nelson, by Lady Amateur, 20 years of age and born in the Colony. Selling price £5 5s.
- 732—Graham, Ernest J., *Oriental Bay, Wellington*.
- Two Portraits in Black and White.
- 783—Green, Mrs. E. E., *Wellington*.
- Tasmanian Wild Flowers, from Nature
- Etched Table Top.
- 734—Gully, John, *Nelson*.
- Water-Colour Paintings, viz.:—

1. Western Coast of Tasman Bay
 2. Kaikora Mountains
 3. South Coast of Kaikora
 4. Milford Sound.
 5. Port of Kaikora
 6. West Coast Road looking down the Bealey
 7. Sunset on the Sands, Nelson.
- 735—Hale, Helen, *Christchurch*.
- Flowers painted in Oils.
- 736—Harris, Emily C., *Nelson*.
- Oil and Water-Colour Painting on Satin; all original
- 737—Hart, Campbell, & Co., *Invercargill*.
- Photographic Portraiture
 - Landscape Photography.
- 738—Hemus & Hanna, *Auckland*.
- Photographs, various sizes.
- 739—Hetley, Mrs., *Auckland*.
- 740—Hill, Charles I., *Upper Riccarton, Canterbury*.
- Machine Wood Carvings.
- 741—Hodgkins, Isabel, *Dunedin*.
- Design for Wall Paper: New Zealand Foliage (Wild Jasmin and Lawyer).
- 742—Hodgkins, William M., *Dunedin*.
- 2 Water Colour Paintings, viz.—
 1. "Dusky Sound, Weather clearing after a Nor-Easter"
 2. A rough day on the Rock and Pillar, Otago, the old Gold Escort.
- 743—Holliday, Captain, *Wellington*.
- Plan of Wellington Harbour.
- 744—Holmes, Miss Alice H.
- 745—Holmes, E. T., *Wellington*.
- Specimen of Photo-printing.
- 746—Hood, Mrs. M. J., *Oamaru, Otago*.
- Gipsy Table, in Prismatic Bronze Painting.
- 747—Howorth, Charles H., *Invercargill*.
- Original Landscape, in Water Colours.
- 748—Hutchinson, Dr. F. B., *Wellington*.
- Photographs of Yacht.
- 749—Jones, E. F., Architect, *Wellington*.
- Design for a Gentleman's Residence in Caswell Sound Marble, suitable for the Climate and Scenery or New Zealand.

The Plans, being of a descriptive nature, speak for themselves. The whole of the proposed materials can be provided by New Zealand. The probable cost of the building, constructed as shewn by the plans, would be about £50,000.

- Design for a Public Building in Caswell Sound Marble' suitable for the Colony of New Zealand, to accommodate the General Government Departments.

It is proposed to include the City Offices of Local Government and a Public Town Hall. The principal elevation shows the Town Hall entrance. The left of the picture shows the Vice-regal and Parliamentary Departments. To the right the Offices of the Law and Defence Departments. The basement to be appropriated for Resident Officer's apartments.

750—Jones, Degar F., *Newtown, Wellington*.

751—Jordan, Emma S., *Wellington*.

- Oil Painting, "Noureddin and the Beautiful Persian."

752—Kebbell, F. A., *Wellington*.

753—Knowles, Henry J., *Wellington*.

- Landscape Photography (amateur).

754—Koch, August, *Wellington*.

- Pen-and-ink Etchings

- Architectural Drawing. Special Drawing to be reproduced by Photo-Lithography.

755—Kreeft, Charles N., *Wellington*.

- Landscape Photographs, &c.
756—Lamb, Robert, *Napier, Hawke's Bay*.
- Drawings of Timber-framed Churches, suitable for the Colonies.
757—Lambert, Thomas S., *Christchurch*.
- Architectural Designs—Street Architecture.
758—Lang, Andrew, *Wellington*.
- Two Pictures drawn in Black Crayon, viz.—
 1. "The Judgment of Solomon"
 2. "Christ Walking on the Sea."
- 759—Langbein, A. A., *Timaru*.
- 1 Water-colour Painting.
760—Lawson, Robert A., *Dunedin*.
- Architectural Perspectives.
761—Leonard, George, *Wellington*.
- Ship in Woolwork.
762—Leslie, Walter J., *Wellington*.
- Water-colour Drawing.
763—Liffiton, MRS. Edward N., *Wanganui*.
- 2 Oil Paintings.
764—Lloyd, Henry Grant, Artist, *Dunedin*.
- 2 Water-colour Paintings—
 1. Mount Cook and Vale of Tasman
 2. Dawn Effect: the Hooker Glacier.
- 765—Luff, Henry, *Wellington*.
- Four Architectural Drawings.
766—McCardell, James F., *Christchurch*.
- Specimen of Illumination: Epitome of the History of Canterbury.
767—McDonald, Jessie L., *Wellington*.
- Flowers and New Zealand Ferns, from Nature, with Crayon View introduced.
768—Macey & Ogilvie, *Blenheim*.
- Enlarged Photographs, finished in Oils.
769—Macy, William, *Blenheim*.
- Figure Photographs
- Landscape Photographs.
770—Maetin, Josiah, *Auckland*.
- Mezzotint Photographs of New Zealand Scenery, comprising: Auckland Bush and Lake Scenery, and Three Views of Rotomahana.
771—Maxwell, E. B., *Wadestown, Wellington*.
- Splasb-work Curtains of New Zealand Ferns.
772—Maxwell, Edith, *Wadestown, Wellington*.
- Flower Paintings on Satin—
 1. Table Border
 2. Centre-piece for Dinner Table.
- 773—Medley, Adela M. C., *Wellington*.
- 774—Mentiplay, James H., *Wellington*.
- Mechanical Drawing.
775—Merritt, Thomas E., *Wellington*.
- Oil Painting.
776—Miller, Mrs. Lonez, *Wellington*.
- Oil Painting, "The Penitent Magdalene." Copied from oleograph. Original by Correggio.
- Martin's Mill, Nelson
- Lake Canary, Hokitika, on Terra Cotta
- Photographs enlarged.
777—Miller, Thomas, *Wellington*.
- Medallion (marble).
778—Mills, Ada E., *Wellington*.
- 3 Oil Paintings. Copies of Original Portraits
- Oil Painting: "Mitre Peak"; enlarged copy from photograph

- 2 Placquets (copies), Maori Man and Woman.
779—Mills, Hetty C., *Wellington*.
- Oil Paintings, enlarged copies of photographs, viz.: —
 1. "George Sound"
 2. "The Devil's Arm Chair, Lake Ada"
- Oil Painting (copy):
 3. "The Squire's Favourite"
- Placquets:
 4. Moonlight Scene. Copy
 5. Lake Scenery, New Zealand.
- 780—Moorhouse, Jessie, *Wellington*.
- 781—Moorhouse, Mart L., *Wellington*.
- Hand-painted Door Panel in Oils; Autumn and Winter Flowers (original design),
782—Moreton, Samuel, *Invercargill*.
- 783—Morris, J. R., JUNIOR, *Dunedin*.
- Photographs.
784—Muntz, Charles A., *Richmond, Nelson*.
- 785—Murray, James P.
- Three Oil Paintings.
785A—New Zealand Public Works Department, *Wellington*.
 1. Timber: Specimens Polished and Unpolished, and Veneer
 2. Stone: Dressed and Polished
 3. Photographs of Works, &c.
 4. Drawings, &c.
 5. Models.
- 786—Paine, Frank M., *Blenheim*.
- 2 Hand-painted Door Panels.
787—Palmer, Miss C. E.
- 788—Palmer, Robert G., *Foxton, Mamwatu*.
- 2 Landscapes in Oils, of New Zealand scenery. Originals. "Sunset from Anaponaiti Point, Kapiti Island,"
"Fern Tree Gully, Kapiti Island."
789—Pamely, George, *Nelson*.
- Perforated Card-board cut with penknife into various patterns, and forming one large mount or picture.
Exhibitor's own design.
790—Parsons, William F., *Wellington*.
- Landscape in Oil, symbolical of the advance of civilization and the decadence of the Maori.
791—Partington, William H. T., *Auckland*.
- 1 Case Photographs.
792—Payton, Edward W., *Auckland*.
- Four Oil Paintings, viz.—
793—Peele, James, *Amberley, Canterbury*.
- 2 Oil Paintings, viz.—
 1. Phantom Ship, "Flying Dutchman" £42.

*"There Vanderdecken beats
For ever night and day;
In vain he tries his oath to keep,
By entering the Bay.*

2. Wreck of the "Hesperus," £42.

*"At daybreak on the bleak sea beach
A fisherman stood aghast,
To see the form of a maiden fair
Lashed to a drifting mast."*

- 794—Penlin Gton, Willi A. M, JUS., *Akaroa, Canterbury*.
- Coloured Crayon Drawing.
- 795—Petre, E. W., Engineer and Architect, *Dunedin*.
- Elevations, &c., of Cathedral, Australian Mutual Provident Society's Building, Monument, Cathedral Altar, and Elevation of large Church.
- 796—Power, Peter, Artist, *Dunedin*.
- Pictures (Oil Paintings) from Nature, all original, viz.:—
- 797—Pownall, Robert W., *Wanganui*.
- Paintings
- Drawings
- Water-colour Drawings.
- 798—Preston, William, *Masterton*.
- Cork Picture Frames.
- 799—Ptnsent, Miss, *Wellington*.
- One Plaque, "Roman Peasant Girl," £1.
- 800—Rawnsley, Madeline, *Wellington*.
- Crayon Copy of "Wedded," after Sir Frederick Leighton.
- 801—Rawson, Arthur J., *Masterton, Wellington*.
- Oil-colour Paintings.
- 802—Rawson, Eecest, *Wellington*.
- Study of Animals from Nature, in Water Colours.
- 803—Reader, Mabel, *Wellington*.
- 3 Pictures, viz.:—
 - "Lili"
 - "Faust and Marguerite "
 - "Marguerite Penitent"
- Copies from William Kaulbach's Pictures.
- 804—Richardson, Francis E., *Wellington*.
- 2 Terra Cotta Placquets (Flowers in Oils)
- 1 Decorated Mirror.
- 805—Richmond, James Crowe, *Nelson*.
- Oil and Water Colour Paintings and Pencil Drawings.
- 806—Ridings, Kate M., *Auckland*.
- Six Paintings of Natural Flowers
- Three-fold Screen.
- 807—Ring, James *Greymouth*.
- Series of Photographs.
- 808—Schotjrup, Niels P., *Christchurch*.
- Photographs.
- 809—Shannon, Maggie, *Wellington*.
- Crayon Drawing, "St. Cecilia."
- 810—Sheriff, George, *Wanganui*.
- Picture: Portraits from life.
- 811—Silk, Thomas, *Wellington*.
- 812—Sinclair, Donald, *Hastings, Hawke Bay*.
- Works of Art. Paintings.
- 813—Slack, John A. *Gisborne*.
- Photographic Pictures.
- 814—Smidt, Mart Ann, *Wanganui*.
- Work of Art.
- 815—Smith George, F., *Wellington*.
- Track Chart, shewing the Intercostal, Intercolonial and Foreign communications of New Zealand, with the existing lights, and Statistics shewing the progress of the Colony for the past 30 years in Trade, Population, Shipping, and Railways, in diagram form.
- 816—Snowball, Edward, *New Plymouth, Taranaki*.
- Two Mechanical Drawings.
- 817—Sperret, Eleanor C., *Wellington*.
- Paintings and Portraits, viz.—

1. Portrait (oil)
 2. "Italian Goat-herd"
 3. "lone" (oil)
 4. Portrait (oil)
 5. "Old Woman Spinning" (water-colour)
 6. "My Pussy" (oil)
 7. Contadino (oil)
 8. "Charcoal Head"
 9. Landscape—"Piedilugo" (oil)
 10. "Nydia" (oil)
 11. Portrait (basso relievo).
- 818—Stowe, Mrs., *Wellington*.
- 819—Strachan, Bertha, *Dunedin*.
- Photograph Painting in Water-colours.
- 820—Stuart, Helen, *Kingsland, Auckland*.
- Photographs painted in Water-colours Drawings in Crayon.
- 821—Stuart, Samuel, *Kingsland, Auckland*.
- Oil Paintings: "Cemetery Gully, Auckland"
 - Oil Paintings: "A Bush-settler's Home in New Zealand."
- 822—Swain, Thomas, *Wellington*.
- Diagrams illustrating the mortality of life and the effect of accumulations at compound interest over extended periods; compiled in Wellington.
- 823—Temple, Edwtn F., *Geraldine, Canterbury*,
- 2 Oil Paintings of New Zealand Scenery—
No. 1, "The Gates of Erewhon"
No. 2, "Gorge in Southern Alps."
- 824—Tidswell, Joseph, *Marton, Rangitikei*.
- 9 Pictures
 - 8 Oil Paintings
 - 1 Steel Plate Engraving.
- 825—Hazard, Mrs Edward P., *Thames*.
- Water-Colour of New Zealand Flowers
 - Water-Colour of New Zealand Wild Flowers Berries, &c.
- 826—Todd, Harry, *Wellington*.
- 12 Pen and Ink Sketches.
- 827—Topliss, Juliet Alice, *Nelson*.
- Drawing in Chalk from the round.
- 828—Tea Vers, William T. L., *Wellington*.
- Photographs of New Zealand Scenery.
- 829—Tregear, Edward, *Wellington*.
- 2 Water-Colour Paintings.
- 830—Tripp, Hariett, L. M., *Ponsonby, Auckland*.
- Painting in Water-Colours: Native Convolvulus and Fantails
 - Design for Cushion: Native Flowers on Satin
 - Painting in Water-Colours: Land Mail and Nabatal.
- 831—Turner, Henry D., *Wellington*.
- Freehand Outline from the cast
 - Shading in Chalk from cast
 - Group of Models in Sepia.
- 832—Tuttle & Co., *Auckland*.
- Photographs, Enlargements on Opal, Paper, &c.
- 833—Tyree & CO., James, *Dunedin*.
- Photographic Views.
- 834—Tyree, William, *Nelson*.
- 2 Cases of Photos.
- 835—Valentine, George D., *The Port, Nelson*.
- Photographs of New Zealand Scenery.
- 836—Vogan, Emma M., *Tawanga, Bay of Plenty*.

- 2 Door Panels.
837—Wakelin, George, *Qreytown North, Wairarapa*.
- Sculpture. Busts, &c., from Family Portraits.
838—Walegrave, Mrs. F., *Wellington*.
- Water-colour Painting: Brighton Beach, near Dunedin.
839—Wales, N. Y. A., *Dunedin*.
- Architectural Perspectives.
840—Watson, J. & J., *Grand Hotel, Dunedin*.
- Photographs of different parts of the Grand Hotel, Dunedin.
841—Waymouth, Elizabeth, *Invercargill*.
- 2 Oil Paintings.
842—White, Kate, *Parnell, Auckland*.
- Hand-painted Table.
843—White, Louisa, *Parnell, Auckland*.
- Hand-painted Door Panel, Original Design: "Kauri Foliage and Cones
• Water-colour Study of Wild Fruit
• Six Pen and Ink Etchings of Auckland Scenery
• Water-colour Painting, "New Zealand Wild Fowl."
• Water-colour Painting, "New Zealand Fish."
844—Williams, Hanwell, *Greymouth*,
- Photographs.
845—Williams, William, *Wellington*.
- Figure Photographs Landscape Photographs.
846—Willis, Archibald D., *Wanganui*.
- Chromo-Lithography of Christmas Cards, Ball Programmes, Playing Cards, Views of Towns, Portraits, &c.
847—Wilson, Lawrence W., *Dunedin*.
- 1 Landscape Oil Painting
• 2 Water-colour Drawings.
848—Wimperis, Frances M., *Dunedin*.
- 849—Wimperis, Jane, *Dunedin*.
- 850—Wrigglesworth & Binns, *Wellington*.
- Photographs.
851—Wyvill, Edward C., *Picton, Marlborough*.
- 852—Young Brothers, *Wanganui and Westport*.
- Architectural Designs.
decorative feature

Special Section For Education.

Special Section for Education.

- 853—Dawson, Josiah, *Wellington*.
- Locally-made Blackboard, Easel, Drawing-board' T-square, and Abacus, or Multiplication Frame, for Infant Schools.
854—Education Board, *Auckland*.
- School Furniture.
855—Education Board OF THE DISTRICT OF HAWKE'S BAY.
• School Appliances and Apparatus.
856—Education Board OF THE DISTRICT OF NELSON.
• A Deal Desk, as used in some of the Nelson Elementary Schools.
857—Education Board OF THE DISTRICT OF WANGANUI.
• 2 Model Desks.
858—Education Board OF THE DISTRICT OF WELLINGTON.
• School Furniture.

- 859—Francis, Catherine, A., Mistress Mount Cook Infant School, *Wellington*.
- Practical Infant School Lessons—Blue Box Series.
- 860—Hill, Henry, Inspector of Schools, *Napier*.
- Objective Reading Cards
- Card for Teaching Numbers to Young Children.
- 861—Moir, James H., *Christchurch*.
- Arithmetical "Works, consisting of Tables of Interest and Annuities, &c.
- 862—Stone, John, Publisher, *Dunedin*.
- Maps and Directories, &c., of Dunedin and Suburban Municipalities.
decorative feature

Special Wool Show.

Special Wool Show

- decorative feature
- 863—Baker & Allison, *Warrengate, Wanganui*.
- Wool in Fleece.
- 864—Campbell, Robeet, *Waitahi Canterbury*
- Scoured Wool.
- 865—Gottlter, Cyrus, *Blenheim*.
- Merino Wool in fleece and samples.
- 866—Holmes & Bell, *Blenheim*.
- Samples of Wool.
- 867—Johnston, Adam D, *Paiwata, Kaihiku*.
- Samples of Merino Wool—Ewe's Fleece, cold water washed.
- 868—Lisle, W. H. DE, *Carterton*.
- Scoured Wool.
- 869—Mccaskill, Peter *Winchester, Geraldine*,
- One Bale of Scoured Wool.
- 870—Mathias, H. J., *Race Course Hill, Canterbury*.
- Scoured Wool.
- 871—Miller, M. R., *Napier, Hawke's Bay*.
- Samples of Wool.
- 872—New Zealand Loan & Mercantile Agency Company, *Christchurch*.
- Wool.
- 873—Tripp, C. G., *Woodbury, Canterbury*.
- Samples of Wool.
- 874—Wairoa Local Committee, *Hawke's Bay*.
- Specimens of Wool grown in the Wairoa District.
decorative feature

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