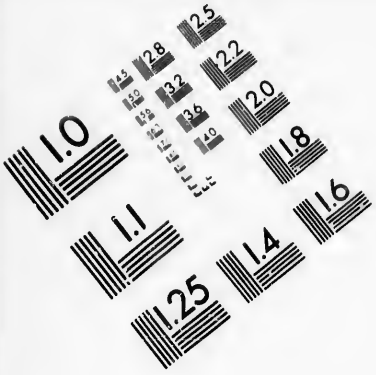

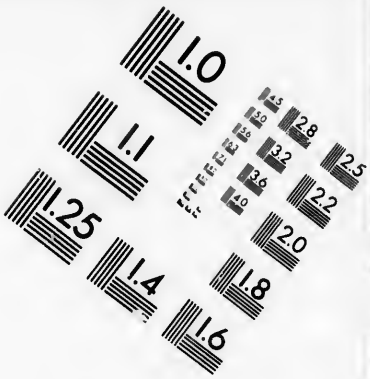

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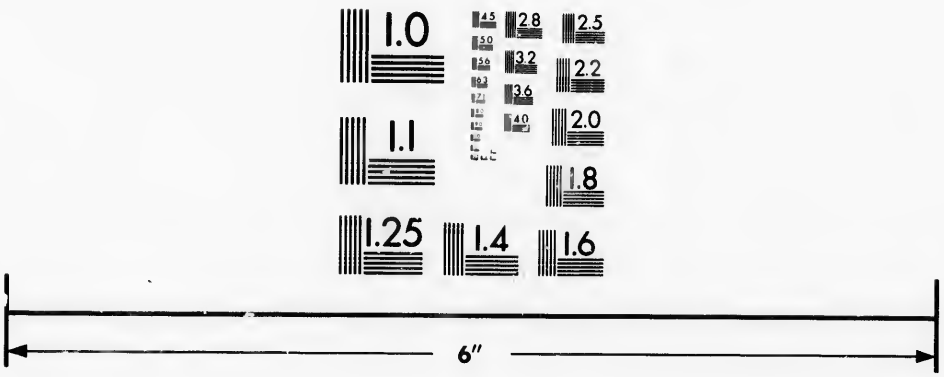

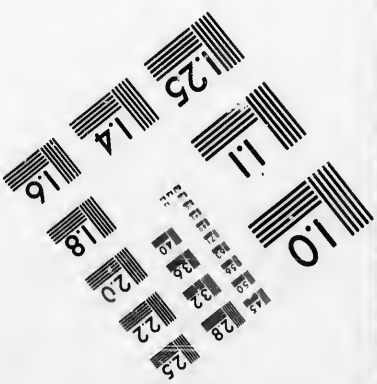

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1894

TO THE ELECTORS OF THE GREAT PROVINCE OF ONTARIO

19

THE IRON INDUSTRY

WHAT IT IS TO

GREAT BRITAIN AND THE UNITED STATES

WHAT IT MAY BE TO ONTARIO

To Draw Inferences is the Great Business of Life.—JOHN STUART MILL.

PICK ME UP AND READ ME

Carefully Study my Contents; Act upon the Advice therein Given, and Share the Prosperity that will follow.

Advice herein given will prove to be Worth a Million Times my Weight in Gold

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TORONTO:
PRINTED BY MURRAY PRINTING COMPANY, 13 AND 15 ADELAIDE ST. EAST.
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THE POLITICAL SITUATION

Tourist John Thompson—Say, Oliver Mowat, what do you call this thing ?

Fellow Traveller Mowat—I-I-I d-d-don't know, Jack, unless it's one of them there obelisk things these cannibal fellows worship. You make an oblation at that side and I'll throw one on this. The natives might take it kindly.

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Ontario Electors, Attention!

ONTARIO,

"THE HOME OF THE BRAVE AND THE FREE."

FELLOW ELECTORS, if you desire prosperity and home comforts, read, mark, and inwardly digest the contents of this manual, for in it you will find out all the ways and chances of success—ways of pleasantness and paths of peace—food and raiment fit will it provide. Greater markets and vastly increased prices will it provide for all the products of your labour. Lay aside your sympathies for a time to those who have misruled this province for twenty years, and have misrepresented you as to the wealth they have allowed to slumber in the bowels of the earth, lethargy, procrastination and subterfuge, while other political divisions of the earth have advanced to what you ought to have attained, and ostensibly at your expense; and because we were in our simplicity and faith loyal and true to the mandatory degrees of those who have proved themselves to be incapable and whose sole object has been office at any expense or sacrifice, even to subsidizing newspapers and fee-fattening officials to pull the wool over our eyes.

By introspection we now see ourselves as others see us, let us then put on a breast plate against their further meretricious tactics, and vote men to represent us who are able and willing to develop our country. Lawyers—constitutional and otherwise—can be hired for all legal matters for a small portion of the fees wasted on office hunting favourites. Profound thinkers and statesmen cannot be hired, but can be persuaded to serve their country.

THE FEE SYSTEM.

Exposure of the Methods by which Poor Suitors Are Robbed by Division Court Officials.

To the Editor of *The Empire*.

Sir,—Did it ever occur to the G.O.M. Mowat that the fee system is a mighty lever in the hands of unscrupulous officials to gull and virtually defraud the rank and file of their unsophisticated patrons? Well, this is not only easily possible, but is persistently done all over the province, and more especially through the fee system of the Division Courts. As a matter of

fact, the clerks and bailiffs of this court are the legal advisers of the horde of poor and ignorant suitors who are unable to employ a lawyer. If the power and inducement are in these officials, it is worse than nonsense to say that at least a great number of them will not avail themselves of the advantage.

Let us see how slick and nicely it is done, and can be done. A poor mossback in the country gets a summons, say for a small debt that he don't dispute, and is willing to pay without further trouble, although somewhat irritated at being sued. He goes at once to the court clerk and asks what he had better do, and tells the clerk he is prepared to pay. "Oh, well," the clerk says, "of course you can pay it into court if you wish, but you can have the satisfaction of keeping your tormenter out of his money for quite a while by simply filing a notice of dispute," (plump fee of 45 cents). "And in fact," continues this disinterested expounder of the law, "if you defend the case at court the judge will likely enough grant you some time to pay the debt." "Jimminy cripes," says the fool suitor, "that's boss, yank out the disposal, here's a bushel of wheat in cold silver." No information is given the now happy suitor as to the five or ten bushels more of his scant store of wheat that will have to be converted into current coin of the realm in order to pay the additional and utterly useless costs. The suitor after a while will not only get his judgment but his reckoning, and his hosts, in the shape of the clerk and bailiffs, will not be absent either. Likely enough by this time this aspirant after legal honours will find that his debt and costs hâve assumed such elegant proportions that he is neither as able nor perhaps as willing to pay as he was when he got the chin-music advice from the clerk or bailiff. The latter will probably give him a further audience to discuss the merits of an execution, and, indeed, the judgment summons and the jail are his near possibilities.

Now this is not a fabric of a fertile imagination by any means. Thousands of such cases occur throughout this big province every year. The officials just wink the other eye, and the poor debtor's pants will not be reseated during the cold winter, and thus the curtain falls.

Again, a bailiff serves a summons on some benighted back concession Patron of Industry. The good, honest Patron at once consults the bailiff as to what he had better do in the matter. Of course the bailiff is no chump, but "knows it all," and human nature will have to be reversed, if the wily bailiff don't give just such judicious advice as will bring the most grist to the grinders of the court mill, of which he is himself a high official. Any other view of it is sheer bosh and hypocrisy. The fees created and extorted, in fact flim-flammed, in this way out of poor, ignorant suitors in this "poor man's court" (sic) in the past five years would build and equip a line of railway across any two counties in the province. More than one-half of the poor and uneducated people who have to do with this voracious court imagine and believe that the clerks and bailiffs are the law and judge knocked into one. Lawyers all over the country know exactly what is going on as to these matters; but a Government subsidy would not tempt one of them to squeal publicly about it. The lawyer who would have the temerity to interfere with the craft of this goddess court of the Ephesians, would be boycotted from court crier to the lordly and haughty clerk.

That there are a great many, perhaps a great majority, of clerks and bailiffs above this sort of thing, is no doubt true; but the principle or system that renders such things possible is there, and so long as it remains there it will be largely made use of in a corrupt manner; and, worse still, is actually

made use of. The same principle and reasoning apply with almost equal force to every other fee-paid official. The removal of this iniquitous temptation will more than half pay fair salaries to officials in question by diminished litigation, and the consequent saving of costs.

In to-day's *Globe* on the subject it is stated, with a flourish of trumpets: "The fees can only increase as the business increases, and officials do not send out commercial travellers to hunt up business." They don't, eh! The army of Division Court bailiffs are veritable drummers to extend and increase litigation in these courts, to their own and the clerk's advantage.

In the system as to registrars and County Court Clerks, these officials have no organized drummers to send out, but they keep at the old stand, and do a big business in the same line just so far as they can safely do so. In their case, when the mountain registrar and County Court Clerk can't totter towards the Mahomet seeker after searches and information, why the Mahomet seeker or sucker has simply to come to them; and he is often advised to do things and order things carrying snug fees that these officials well know are utterly absurd and useless.

I shall explain the *modus operandi* of these high state functionaries of Mowat's Government in my next letter. I don't say they all do it, or the majority of them, but the golden opportunity is there, and it is idle to say that many at least don't take full advantage of it.

Ontario, Feb. 8th. ICONOCLAST.

April 2nd was Canadian Day at the California Midwinter Fair, and it turned out to be one of the finest days as to weather that has as yet been vouchsafed the enterprise. The speaker of the day was Dr. W. M. MacNutt, who reminded his hearers that the "resources of Canada are equalled by few nations and surpassed by none. She has a domain nearly as large as all Europe, and a climate that is bracing, invigorating and well calculated to raise men who are industrious, hardy and energetic. Beneath her soil are coal and iron of the best quality, and in quantity unlimited; she is also rich in gold and silver, and quarries of stone, of gypsum and asbestos. Within her borders we find millions and millions of acres of the best wheat land the sun shines upon; and, as for lumber, her virgin forests are beyond computation; her trees are as the sands of the sea, whi no man can number. Her rivers, lakes, bays and shores teem with fish by the millions; cattle and sheep by the thousands roam over her rich valleys and plains. Already she is providing Europe with wheat, barley, beef, eggs, cheese, butter and fish. She provides good schools for the poor, and universities that are within the reach of most of her sons and daughters. With 15,000 miles of railroad and many more thousands of miles of canals, lakes and navigable rivers, with every ocean dotted over with her ships and her sailors, Canada is well prepared to set up business for herself, and to commence negotiations for commercial reciprocity with these United States." Henry Partridge, one of the Secretaries of the Canadian Auxiliary Committee, also spoke, and the whole affair wound up with a characteristically Canadian event, namely a lacrosse match.

In Ontario are all the conditions necessary for the maintenance of a large population. The extent of good arable land, fine climate, and its freedom from drought and excessive rains render it peculiarly well adapted

for the production of vast quantities of agricultural products. A comparison of Ontario with the older countries in Europe will in some degree give an idea of the vast capabilities of our Province. Belgium, for instance, has an area of 11,372 square miles, and supports about 7,000,000 of a population, or about 471 persons to the square mile; whereas in Ontario we do not average more than eight to the square mile; and also our climate and soil and sources of mineral wealth are superior. Then for further comparison we have the Netherlands with over double the population of Ontario and only one-nineteenth of the area, and a very much inferior climate, and in no respect comparable to this Province; also Denmark, with double the population, and only one-sixteenth the area, and not in any respect to be compared with this country. Then again there is the great German Empire with her 50,000,000 of a population and in that alone is she superior to Ontario, half of her area being scarcely suitable for agricultural purposes. Is there any reason why Ontario should not become as densely populated in the future as these states just mentioned. It is the opinion of a great many that before another century has passed by, the continent of America will be as thickly populated as Europe. Had it been possible for the people of Europe who lived during the time the population was light, to have seen the state of affairs at the present time, would they not have bought extensively of real estate? Is this not a lesson for those living here with such advantages before them, and real estate offered for and even sold at very low prices and can be had at almost any price! Can we not truly say that it is now time that we should begin to see about making purchases to leave to our progeny? Is it not a fact that estates in England, and we may say in every country in Europe, have advanced in value and paid better interest than any other line of investment? Have not the landlords and landed aristocracy carried more prestige in social and political circles than any other class? and where one man makes a fortune in any other pursuit of life 50 make fortunes out of real estate. Then, if these are facts, why will you not seize the opportunity before you? These are poor arguments if we use them for those who are now advanced in years, but with the rising generations, they should have due weight, and enable them to say that they have been able to improve their time while passing through "this vale of tears," and that they have not led a life of indolence, but one of advancement and progress. There is no man who does not want to leave something behind him, for his children, in shape of growing investments, either in bank or other stocks, mortgages, real estate or in numerous other ways, and yet out of all these there is none that has paid like real estate—freehold property. If what we have to will to our children is left in the shape of money, is it not more liable to slip through their hands than if left in real estate? If we have the utmost confidence in our children's prudence in purchasing for themselves there would then be a disadvantage as the next generation would have to pay four times the present price for freehold property.

Everything that is sown to produce must first have its bed prepared properly. By some means the enemies to its full growth must be kept off; so in infancy our parents succored, nourished, and in every way encouraged us to come to manhood, that we might stand alone and protect ourselves and compete for our livelihood amongst our fellow men, where the fittest survive, marry and multiply and replenish the earth. So men as a body politic to be true to their own best interests individually and collectively must encourage private and public undertakings till they have passed out of

their teens and are able to compete against their competitors. Proper encouragement from the Ontario Government for our material benefit, then our farmers and our miners to the extent they are producers must be encouraged in every constituency, as they were in other countries that have left us behind in the race of progress.

The tendency to persist, to persevere in spite of hindrance, discouragements and apparent impossibilities, it is this that in all things distinguishes the strong soul from the weak.—*Carlyle.*

The British Islands which are but a speck on the map of the world, have by their Iron Policy of encouragement created a commerce the greatest the world has ever seen, and she levys a tribute from every nation under the sun, and by her commercial supremacy on the sea, and in Europe is the advance guard of civilization in all the world, and the great monetary force that regulates the financial transactions of the universe, and when her population was at double what Canada is at present, her imports and exports were not more than half ours at present. If Great Britain in her remoteness from food supplies with her inability to produce anything like an equal proportion of the raw material which she consumes, and at distances from the greatest centres of consumption, has made this record for herself in the commercial world, what may not her offspring do lying between the Atlantic and Pacific with such enormous deposits of coal and iron of such a superior quality in the provinces of each coast, and the world's only supply of nickle in Northern Ontario, and yet Mowat and his colleagues sit in office doing nothing but making the laws more intricate that the farmers' mental worry may increase and his feet be further tethered, that they may waste the peoples' money and further confound them by their Bombast Bookkeeping with the idea of a surplus of six and a quarter millions and which in reality is nothing but a myth. Sons of Ontario, Mowat and his followers for their mismanagement, by your ballots on next election day must cease to exist, as the rulers of this, our noble inheritance, Ontario, the gem of America.

Ontario iron deposits and area. All it wants to develop it and give unprecedented prospects to our farmers is such encouragement as Sir Oliver Mowat and his followers will not give, but says he as the autocrat, *i.e.*, dictator of Russia, I know better what you want than you know yourselves.

What England imports of our produce and what more she would take if we had a progressive government in Ontario.

Krupp the greatest of gun makers who employes 23,000 men says, on investigating Ontario nickel that he has discoved a metal that will make guns unburstable and armour plate impenetrable.

THE INTERESTS OF THE COUNTRY.

To the Editor of *The Empire.*

SIR,—I noticed the other day in your editorial comments some laudatory remarks from the *Victoria Warder* on the Controller of Customs and his early and late hours at office—the energy and activity he has infused into the Customs Department. The public well know that this addition to the customs was not a day too soon for the best interest of all merchants and traders in any way concerned with this department, not that the old head of the department was not obliging and anxious to meet appeals, but the increase of the work was so great as to get beyond the capacity of any one head to overtake it, and mistakes and abuses were bound to creep in, that have caused the country in various ways per annum in the last twelve years ten times the expense of the extra addition to that department. The Hon. N. Clarke Wallace has been indefatigable in correcting and resisting abuses arising from the necessity of the reform it is now getting, and it is a great wonder that the press has not before noticed the laudable and improved ease in which the Customs Department is now working; a like saving of money would be a godsend to this young and hopeful country, with its wonderful resources and great capabilities and with promises full to overflowing, to have such a Controller of Immigration and Mineral Development engrafted on to their proper departments, with a similar progressive energy and mercurial cast.

It is imperative and expedient that every elector, individually and collectively, should make a raid on his representative and insist upon not only a move-on from the present dead march, but to a double quickstep time, and if the reply is, as was that of the late Hon. Alexander Mackenzie to the deputations from trade centres and that from the famous Fort Francis canal and the beautiful water stretches, "Gentleman, you don't know what you are talking about; I know better what you want than you do yourselves," then our answer will be non plus until next time a poll is declared, and then it will be similar to the one that gentleman received in September, 1878.

We have a great country to fill up, and it cannot be done without arduous work. It must and will be done, but there is now too much of a funeral procession by those handling these elements of government (suffering as these elements are from political long-standing gangrene), and it would be as well for them to speak for their little graveyard plots when at the cemetery, for surely there is a reckoning at hand for perfidious stewards. The thirteen original American colonies had only a population of 2,000,000 whites and 500,000 natives and Africans in 1776, the year of independence; in 1860, 23,000,000; now they claim 70,000,000. These results were not brought about by a stand-still or a go-as-you-please policy, but the expediency of the United States and the imperative demand of her people, individually and collectively. With us such vigor would speedily concatenate British territory, forming over forty countries and colonies, belting the world, and making her empire a company of nations, loaning to all others and borrowing of none, the pride of our people and the wonder of the world, an area at present over three times that of all Europe, with one-sixth of the population of the earth, having justice, truth, honor, liberty and the elevation of the human race as the foundation of her constitution and the pillars of her empire. May the sun ever continue to shine on her is the petition of her subjects everywhere to the great Architect of the Universe.

Toronto, Feb. 15. R. W. PRITTIE.

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W. PRITTIE.

SIR OLIVER'S SEVENTEENTH PRAYER.

SIR OLIVER---Please, St. Patrick, you made such short work of the snakes and toads in Old Ireland, I wish you'd just try what you can do with these reptiles in Canada. Never mind the toad, though I'll fix him.

PUBLIC OPINION.

MR. HAMPDEN BURNHAM'S LETTER.—AGRICULTURAL COLLEGE.

And the Peculiarities of Registry and Other Public Offices—An Interesting Discussion of Some of the Chief Topics of the Day—The Progress of British Columbia—Imported Thoroughbreds—The Algoma District.

THE AGRICULTURAL COLLEGE.

To the Editor of T*he Empire*.

SIR,—Please allow me, through your columns, to give a few facts as they strike a farmer concerning the doings of the different members of the Mowat Government, especially our unworthy member, Hon. John Dryden. At the first I would like to refer to the charges that have been made by different parties against him in regard to his management of the Agricultural College at Guelph, the department for which he is principally answerable, and which is of the greatest importance to the farmers of Ontario. And I may say that these charges are made under oath, and can be verified also by others under oath if necessary, and if a searching enquiry be not demanded by the Ontario House, the Government must stand condemned in the minds of the people, and should be strictly dealt with at the ballot box. In dealing with Hon. Mr. Dryden I shall not go further back than 1891. It appears that in 1891 he drew on the treasurer of the Mowat Government for $1,000 to take him and his wife to the old country to purchase stock for the Agricultural College. He selected some animals at that time, mostly through an agent named Bruce. With the stock selected was one shorthorn bull for himself, which was slaughtered at Quebec, having tuberculosis very bad. This animal was also selected by Bruce. The next year Mr. Dryden commissioned him to buy again for the Agricultural College, which he did, and among the latter selection was a Guernsey cow. Mr. Arthur Johnston, of Greenwood, Pickering, was in charge of this shipment from Liverpool to Claremont station. At Myrtle coming up Mr. Johnston met Mr. Dryden and told him of this Guernsey cow, and said he should slaughter her as soon as he laid his hands on her, if such were not done before, as she was perfectly rotten with tuberculosis. Notwithstanding this caution given she was taken to the farm at Guelph, and placed in the stable along with the other dairy cattle. Prof. Reid noticed that she was diseased almost immediately after her arrival, and ordered her isolated. She was at once put in the manure shed for two or three days, and, as Mr. Dryden says, she had to be removed from there as they were afraid she might freeze. A nice state of affairs at our model farm that, after spending almost half a million dollars on the buildings at Guelph, yet they have not a fit and proper place in which to put a diseased and sick cow, so that she will have warmth and comfort. At any rate she went back along with the rest again, and remained there until near her death, when she was slaughtered (see Storey's affidavit) and had affected nearly the whole herd. Up to July, 1893, four were slaughtered

according to Dr. Mills, and another in October. It was then that they concluded to use the Koch lymph upon the herd. It might not be out of place here to digress from the subject. The Mowat Government are always hiding themselves behind the authorities at Ottawa for their bad and unpardonable deeds, but they will not copy a single good act done by the Ottawa Government, not they. Koch's lymph was first used at the Ottawa Experimental Farm in November, 1892. But although they had found out that the disease had also broken out at Guelph, they made their first test in October, 1893, or almost one year afterwards. But then the Ontario is a Reform Government! They tested 15 and 12 which showed the sign of disease. They stopped there and made no further tests. Had they in their minds the fall sale at that time? It looks very much like it. And as a dishonest man would do and say—here we are losing enough by this thing, we will make a sale, and get clear of this unfortunate business and sell all off we can, for fear of any more loss to the Model farm. To show that there is good ground for my assertions, the four calves offered for sale and sold were afterwards tested, and three were found to be diseased out of the four. Why were these not tested before the sale and the public protected? It appears that the Minister had more in his mind the protection of himself than he had the public. And for that very reason the public should condemn him when the time comes. We farmers are striving in every shape and form to have the embargo lifted from our cattle going into England. Still the men in whom we put our trust and guidance appear to place every stumbling block in our way, by standing mum and allowing innocent purchasers to come from far and near to make purchases of diseased cattle to spread the disease all over our fair Dominion, to the injury of the human race physically and financially. When we think of such a thing it should make our fingers itch for the ballot paper to send such men into oblivion. In fact it should make any farmer or parent feel indignant.

Before the sale catalogues were printed, Mr. Dryden wrote to the officials at Guelph that he would be at the farm to make selections for the sale. He was there on the day appointed by him, and Dr. Mills, Prof. Dean and he went together, as it was supposed, to select the animals to be sold. They were seen to go into the dairy stables together. The inference to be drawn from this is that Mr. Dryden knew not only the animals that were to be sold, but that he personally selected them. One of the heifer calves sold, an Ayrshire one, was sired by one of the best of the breed in England. Did Mr. Dryden not know that they were selling this calf, and that she was out of an imported cow which was tested and found diseased? If not, it is bad on the other hand, as it shows him to be as utterly ignorant of his department as any of the many sessional clerks that are in attendance during the session. Let any reader look at the fly leaf of the sale catalogue and he will see there "Under the instructions of the Minister of Agriculture." In some interviews he tries to throw the blame on the officials at the farm, and says it was done through a misunderstanding. In the House he tries to plead ignorance of the disease altogether, or nearly so, as he says that he was only up there once or twice while this work was going on of slaughtering and testing the animals. I see an item in the Public Accounts of $130 for travelling expenses last year paid to Hon. John Dryden. Where was it spent? I shall here repeat what Mr. Dryden said to *The Empire* reporter the day after the sale:

"As the bills were out and the sale going on I had no opportunity of correcting the error, but after the animals were sold I laid the facts before

the purchasers and told them they could take the animals away or have their money refunded as they liked. The calves have not been taken away."

A nice confession for a guardian of the people's interests of this province to make. Shame on the man to have to make such a confession! Considering, too, that three out of the four calves were then suffering from the deadly disease, he would still allow the people to take them away if they felt inclined. The question is, had he a right to put the purchasers in such a position as to make that choice? Mr. Dryden, as well as anyone else, knows how public sales should be, and are often conducted. Why did he not get some of the henchmen of the Government to buy these animals in? They had plenty of them around to do it. Take J. I. Hobson, for instance. He was there. By the way, in speaking of Mr. Hobson, he makes the best excuse for the Government in an interview that I have read yet. He says "the reason Mr. Stacey did not take the Ayrshire heifer calf was that he had bought her too dear and took this way to get out of the purchase."

When the auctioneer was asked the question when the fourth calf was being sold (the Ayrshire one) if any of the calves were out of tainted dams, he referred them to Prof. Dean. The latter would say nothing then, but made for where Dryden was standing. All this gives an idea that there was an undercurrent flowing, and if the bomb had not exploded there and then, the sales would have been completed and everything would have gone on lovely. The hardest evidence against a man is very often his own inconsistent and contradictory statements. Mr. Dryden has condemned himself in the eyes of the province and his own constituency, and the electors are only waiting, waiting.

A FARMER.

South Ontario, March 27th.

THE ALGOMA ELDORADO.

To the Editor of *The Empire.*

Sir,—For some time previous to, and since, the article in *The Empire re* establishment of the smelters here by the Dominion Coal Company we have been verifying the reports *re* mineral deposits in the Algoma district. Enclosed please find result, which, it is hoped, you will kindly publish.

R. B. DIXON.

Sudbury, March 3rd.

The opinion of experts, two of whom have been all over the mining centres of the world (and whose signatures are attached as a guarantee of good faith), is that the mineral resources of the district surrounding Sudbury, Ont., are inexhaustible, in so far as relates to nickel, copper, some silver and true fissure quartz veins, carrying native gold and nuggets in abundance. Mr. Le Duc, of West Duluth, Minn., has devoted 32 years to mining and prospecting. Mr. Dixon, as a descriptive journalist and experienced explorer, visited all the large mines, copper, coal and gold, in Australia, Nova Scotia and the Algoma district, and after careful inspection, not only of specimens submitted, but from personal examination, extending over a period of several months, vouch for the above, and stake their reputation in defiance of any contradiction.

R. B. DIXON, *Journalist, Sudbury.*
ANTOINE LE DUC, *Mining Expert, West Duluth.*

At the season when you are young in years the whole mind is, as it were, fluid, and is capable of forming itself into any shape that the owner of the mind pleases to allow it, or constrain it to form itself into."—*Carlyle.*

Turn out Sir Oliver and his gang of incompetents and get this prize iron industry development under proper encouragement, the foundation and backbone of England and the United States prosperity Capital followed an unprecedented immigration to the latter country to develop its resources; the interest paid now upon this working capital, which makes ample return to the bonder, amounts to one hundred millions per year in dividends and bonuses and bids fair to amount to the enormous sum of one million dollars per day. So would it be in Ontario with our mineral deposits and an area as great as the five New England States with New York, New Jersey, Pennsylvania, Maryland, Delaware to boot if we could get a move on by the Government of this province. Increase of population from a vigorous iron policy and immigration 40,000,000 in 34 years, from 1854 to 1890, and the capital following this enormous influx of people comes, therefore, to invest and take its chances of success, and benefits the farmer and others to an extent of magnitude, who take honest advantage of it.

The growing fortune of a man is to be born with a bias to some pursuit which finds him employment and happiness.—*Emerson.*

Every person has two educations, one which he receives from others, and one more important which he gives himself.—*Gibbon.*

MOWAT AND HODGE.

"Hodge!"

"Yes'r!'

"How many acres in your farm, Hodge?"

"One hundred acres, sir."

"And how many cattle have you, Hodge?"

"Twelve horned cattle, all told."

"And horses?"

"Four horses."

"What other animals have you, Hodge?"

"Eighteen sheep and seven pigs."

"And is that all your live stock?"

"That's all, except the missus has some 40 head o' fowl, and a half a dozen geese."

"Very good, Hodge. And how many people does it take to run the place?"

"Myself and two boys who are both grown up; and my girl, Jemima, who does the milking and the churning, and the missus, of course."

"And do you have to hire anyone in harvest?"

"No, but I can tell you we are all kept busy the whole year round."

"As to machines, I suppose you are equipped as farmers usually are?"

"About the same. We have a self-binder, cultivator, hay rake, seed drill, plows, harrows, and so on. Also a couple of wagons, a buggy, cutter and the like."

"Just another question, Hodge. How much did you clear last year?"

"Well I have another load of grain to sell yet, when that is marketed I reckon I will have $160 to the good, after paying all expenses."

"You mean you will have $160 to put in the bank?"

"Just so."

"After feeding your stock and keeping the house going, repairing machines, etc., you will have $160 to the good?"

"That's it."

"That'll do, thank you, Hodge."

It takes about $8,000 a year to live in decent St. George street style, in Toronto. Some men require $15,000. Others live respectably and create a mild sensation on $5,000. Eight thousand is just about the right thing. That income will allow you to keep up a stable with two grooms, and you can give a couple of swell receptions during the winter. It also permits of a six weeks' trip to Europe with a few etceteras. In Toronto $8,000 a year is a comfortable income.

Indeed, one ought to live pretty well on $8,000 a year, for that sum represents a lot of hard labour. For the fun of the thing let us see what $8,000 a year really does represent.

And let us use the figures given us by Hodge to form the estimate:

Hodge and his whole outfit cleared $160 profit last year. To make $8,000 it would take 50 Hodges and 50 outfits similar to his. Here, then, is what $8,000 a year represents:

The labor of 50 able-bodied yeomen and of
100 full-grown farmers' sons, and of
50 farmers' daughters or hired girls, and of
50 farmers' wives, whose work is never done,
5,000 acres of land,
600 horned cattle,
200 horses,
900 sheep,
350 pigs,
2,000 fowl,
300 geese,
50 self-binders,
50 cultivators,
50 hay rakes,

A square acre of plows and a string of wagons, cutters and buggies that would make a procession two miles long,

Together with saw-horses, tools, feed, cutters, harness, barns, stables, houses, furniture and a host of other necessary things for the prosecution of the farming business.

Does it really require all these men and animals and all this plant and the land to make $8,000?

It does, one and all of them. The horses are necessary, of course, and how could anything be made without the land, or the men to work it? Yes, every item above enumerated is essential to the making of $8,000 a year profit in farming.

What does all this mean?

That's just what I was figuring.

When Sir Oliver Mowat appointed his son sheriff of Toronto he invested him with a patrimony equivalent to all these male and female slaves, all this arable land, all this live stock, all these farm implements and tools. It takes 50 farms and 50 farmers and 50 farm outfits complete to pay this gentleman's salary.

Five thousand acres is just about eight square miles. He gets the benefit of all this land, and his slaves amount to 250, male and female. And all these people labor hard. They get up early and go to bed late. In summer months the sweat rolls off their burning faces. They labor like the street car horses we used to know. In winter they make long and cold journeys to the market town. They go into the woods in zero weather. In all seasons they engage in hand-to-hand combat with the elements of nature. They are the slaves of the soil.—*Toronto World.*

The first law of nature is, Man, mind thyself. Self-preservation can only be accomplished by strict attention to our personal comforts and wants. Our wants are supplied from many and various sources. These sources must be increased and guarded and encouraged to produce, and if necessary protected by the body politic, from outside contamination. So great things await us in our mineral development. To accomplish this we must absolutely lay aside our personal friendship and party connection with the Reform candidate, who is bound body and soul to unprogressive and phlegmatic leaders, who by their inaction first and their rocking-horse policy last hoodwink the people and further prolong life in office. If we try for one term a progressive party, our sons and daughters need no longer seek livings in foreign lands.

AN AMUSING INCIDENT.

A traveler meeting Sir Richard Cartwright's coachman on his way to the Western States, asked the ex-coachman for Sir Richard why he was leaving Canada, and he replied that Sir Richard had said things were better in the States. The coachman had come back to Kingston in less than two months and had stated that Canada was good enough for him, and that he would have been better off had he thrown his railway ticket out of the car window before he had got beyond the Canadian borders. So Sir Richard's running down his own country and glorifying the States had just cost that coachman the railway fare to the Western States and back. Many people had left Canada believing the statements of the Opposition party, and many of them had not been able to get together enough money in the States to return to Canada. These people, who had gone from Canada, knew that Canada was a better country to-day than the United States, and they would never have gone away had the Mowat Government encouraged the development of our mineral wealth, as did the States these people went to, and they will all return and bring their increase with them, as soon as the electors of Ontario get a chance of marking their ballots in favor of a more capable and progressive party.

LIGNITE.

On the north branch of the Moose River, sometimes called the Missinaibi River, and about one hundred miles from Moose Factory, we came to Coal Brook or creek, where the existence of brown coal or lignite would appear to have been long known to the Hudson's Bay Company's officers and servants. I found a tolerably good specimen on the sand bed at the junction of the brook and main river. I did not see the lignite *in situ*, being unable to ascend the brook in search of it. A day or two before arriving at that point, the weather had become very cold and frosty, and as the voyageurs who accompanied me had to return to Moose Factory after taking me to Michipicoten, they were very anxious to push on with all speed, fearful that the smaller lakes on the height of land might freeze before their return and thus expose them to a great deal of hardship, if not danger. This circumstance prevented my giving as much time and attention, not only to the minerals, but to other resources, as I should, under other circumstances, have gladly bestowed on them. Dr. Bell, however, who examined this and other beds of lignite in 1877, thus describes them in the geological report for that year, p. 4*C*. "The existence of lignite on the Missinaibi (North Moose) River, was referred to in my report for 1875, page 326. During the past season I found it *in situ* in several places on this river between the Long Portage and its junction with the Mattagami. The first or highest of these was in the west bank of Coal Brook, three-quarters of a mile from its mouth. Coal Brook is a small discharge or channel which leaves the main river opposite the head of the fourth or River-side Portage, and rejoins it five and a half miles below Round Bay at the foot of Hell Gates. This bed of lignite is about three feet thick, and is underlaid by soft sticky blue clay and overlaid by about seventy feet of drift clay or till, full of small pebbles and passing into gravel towards the top. Much of the lignite retains a distinct woody nature, some of the embedded trunks are two feet in diameter. When dry, it makes a good fuel, but contains a little iron pyrites. On the south-east side of the river, at nineteen miles below Coal Brook, or two miles above Woodpecker Island, a horizontal seam of lignite was found in a bank of 'till' 125 feet high. It is from 1½ to 2½ feet thick, and is made up principally of sticks and rushes. Below the lignite are 80 feet of yellow-weathering grey clay, and about it 45 feet of blue clay. Both varieties of clay are full of pebbles, and they also hold some striated boulders of Laurentian gneiss, Huronian schist, and unaltered Devonian limestone. At three miles below Woodpecker Island, or nine miles above the mouth of Opazatika (Poplar) River, another bed of lignite occurs in the bank upon the same side. It is six feet thick, but diminishes to the eastward, and is of a shaly character, being made up of laminæ of moss and sticks. Immediately below the lignite is a layer one foot thick, of irregularly mingled clay and spots of impure lignite. Next below this are forty feet of unstratified drift, full of small pebbles, under which are a few feet of stratified yellowish sand and gravel. Resting upon the lignite are five feet of hard lead-colored clay with seams and spots of a yellow color, and layers of red grey, drab and buff. Above all and forming the top of the bank, sixty-five feet high, are ten feet of hard drab clay with striated pebbles, and small boulders holding rather large valves of *Saxicava rugosa*, *Macoma calcarea (Tellina proxima)*, and *Mya truncata*. Small seams of lignite were seen in two

THEY ARE GOING HOME.

(MAYBE FOR GOOD.)

TORONTO---Well, boys, I'm sorry your going During the twenty years or so you have come down here each session to block the wheels of progress we've always got on pretty well together. But now you're going home and I fear most of you will stay there.

places in the bank on the same side at, and again half a mile below the foot of a rapid which occurs about six miles above the Opazatika. In the interval between one and two miles above this stream, the whole bed of the river appears to be underlaid by lignite. When sounded by a heavy pole it has an elastic feel, and gives off large volumes of gas, which may also be seen at any time bubbling up spontaneously here and there all along this part of the river. This phenomenon has been observed by the Indians from time immemorial, and the locality has received the name of the 'Bubbling Water.' A box of specimens of the lignites of the above localities was brought to Montreal for examination."

No analysis of the specimens of lignite collected by Dr. Bell in 1877, has yet been made, so far as I know. A specimen, however, obtained from the Moose River by Dr. Bell in 1875, was examined by Mr. Hoffman, and gave the following results (Geological Report, 1875-76, page 422):

	Slow Coking.	Fast Coking.
Fixed carbon	45.82	44.03
Volatile combustible matter	39.60	41.39
Water	11.74	11.74
Ash	2.84	2.84
	100.00	100.00
Ratio of volatile to fixed combustible	1:1.16	1:1.06

This specimen of lignite was thoroughly air-dried. Mr. Hoffman observes in reference to it: "This lignite is very similar in composition to those from the Souris Valley, collected and examined by Mr. G. M. Dawson, as also to those from the Dirt Hills and Woody Mountains (North-west Territory), collected by Mr. Bell."

AN EXAMPLE ONTARIO SHOULD FOLLOW.

The Chilian Government, despite the fact it constitutes one of those South American Republics that can furnish a revolution on twenty-four hours' notice, is fully alive to the advantages of cultivating an iron industry within its own limits. The country has a population of less than 3,000,000 according to Whitaker's Almanac. Chili, however, is an independent country and has to rely on its own resources in case of war. Chili has gunboats of its own, and it is a country, therefore, that can probably appreciate better than Canada the advantages that an iron industry confers upon a country. To further the manufacture of iron and steel all the scrap iron and steel belonging to the Republic is given free for three years to the concessionaire that undertakes to start the industry. All pieces of rail not exceeding two feet in length are also to be given free. At the conclusion of this period the concessionaire may obtain such scrap at 7s. 4d. per ton for fifteen years. He may also import free of duty for ten years sulphuric acid, hydrochloric acid, borax, sal ammoniac and metallic antimony up to a total value of £3,000 per annum. It is proposed to erect the works at Talcahuano. If a country that is subject to so much disturbance as Chili can give this encouragement, why shouldn't the rich Province of Ontario do something to develop its mines?

NOTES FROM THE GALLERY.

The existence of Government House as a provincial charge is assured

for some time to come. The debate ended yesterday, and, on the Attorney-General's motion to the effect that the times were not opportune for such a change, the Opposition's efforts for retrenchment were nullified by a vote of 50 to 32. There were four Opposition absentees, and Mr. McNaughton, the representative of the Patrons, and Mr. McCallum, the P.P.A. member from Lambton, voted with the Opposition, as did Mr. Snider and Mr. Kirkwood. The result was not unexpected, and the vote in favor of abolition was but one more than when last taken. It is certain that there are many on the Government side who do not approve of the present arrangement, but are afraid to go against Sir Oliver on this question. We may expect the coming summer to find Government supporters engaged in the difficult task of explaining to the farmers why they refused to effect this saving when they had it in their power to do so.

MR. McCALLUM'S MAIDEN SPEECH.

Mr. McCallum said he had been a supporter of the present Government for nineteen years, but was elected for East Lambton as an independent. He belonged to the class of hard-working farmers. Their condition was not very prosperous. He thought the expenditure ought to be curtailed, and he should vote for the resolution. He believed the time was not far distant when not only Government House but the office itself would go.

AN ENGLISH VISITOR.

A recent letter of the correspondent of the *London Times* deals specially with Ontario and the Maritime Provinces. Ontario is described as by far the wealthiest of the Provinces, containing at present nearly one-half the population of the whole Dominion, and with great possibilities of future growth. "Bounded by three great lakes, Ontario, Erie and Huron, and by three great rivers, the St. Lawrence, Detroit and Ottawa, so that its position is almost insular; equipped with a most complete railway system; having a climate which favors the growth in abundance of grapes, peaches, maize and similar products in the south, and being singularly suited for wheat and barley further north; with petroleum and salt areas in the west, timber areas on Lake Huron, mineral deposits of great variety and extent on Lake Superior, the Province seems almost unique in situation and resources for production and commerce of all kinds. Its future must be very great, indeed, and, whatever may be the growth of the west, Ontario will, assuredly, remain for a long time the centre of political and commercial energy in the Dominion." He adds that British capital, which is content with sure investment at moderate rates of interest, is finding much employment in Ontario, and, under judicious management, may safely do so in much larger volume than at present.

The correspondent lays stress upon the fact that Eastern as well as Western Canada offers a promising field for farming industry. Eastern Canada, he says, offers good opportunities not only to farm laborers but to tenant farmers with some capital, as well as skill in agricultural work. He points out that land values have decreased of late in Canada, as in England, and it is easy to buy farms partly improved, and with buildings on them, at a reasonable rate; and the fact that they are cheap is no indication that

they are useless or cannot be made profitable. A pioneer spirit, he says, sometimes runs through whole classes of society like a fever; it induces people to give up what is good on the mere hope of finding what is better; it leads them to despise the solid advantages of settled society for the uncertain chances of new regions. Such a wave of feeling has been passing over Eastern Canada during the last ten years. "The men who go to the west may or may not find the success they look for; those who take their places, if men of moderate desires, may congratulate themselves on reaping solid advantage from the adventurous spirit of their predecessors."

An excellent piece of advice is given to old country people desirous of investing in such farms, namely, to become acquainted with the conditions of the country before purchasing. One good suggestion is that the intending purchaser should "engage himself quietly as a laborer for a year or so on a farm, keep his eyes open, and thus, while gaining experience, get a true idea of land and stock values in Canada." This caution is as beneficial to Canada as to the intending settler, for the true interest of Canadians is not merely that a farm here and there should be sold, but that those who purchase should be thoroughly satisfied and thus become immigration agents of the best class. When an investor falls into bad hands or is disappointed for any reason the country suffers more than he does.

Our visitor has also been struck by a fact which has escaped the notice of many previous observers—the advantages of many of our Canadian towns and their vicinity as places of residence :—

"I also think that people with a fixed income of from £200 to £400 a year, with simple habits and a liking for country life, and with families to bring up, would make their money go further and improve the prospects of their children by buying small and manageable places in many districts of the older parts of Canada. Near all the smaller Provincial towns, Windsor, Amherst, Fredericton, Kingston, London, Woodstock and a dozen others which might be mentioned, they would find many of the advantages of pleasant society, cheap education and comfortable living to an extent which their money will not command in the crowded old country and which they cannot obtain for years to come in the thinly-settled west."

This truthful and judicious praise is of high value to the country. The average Canadian town does possess all the residential advantages to which this correspondent refers, and it is an advantage to the country and to the readers of these letters that they should be made known.

LONDON TIMES ON CANADA.

The *London Times*, of March 24th, contains the sixth of its praiseworthy and admirably Canadian letters. This article, which is appreciatively reviewed in the editorial columns of the same issue, is devoted to Ontario and the Maritime Provinces. The key note of the study, which, occupying four and a half columns, must be considered very exhaustive for a newspaper contribution, is found in this simple observation : that the future developments of Canada do not belong to the west alone. "Eastern Canada," says the *Times* correspondent, "is a country of sea coast, islands, peninsulas, great rivers and lakes; of splendid fisheries; of varied scenery and climate; of coal, timber, iron and gold; precisely that combination of condition and resources which history has proved most favorable to human progress."

Reviewing the wealth, progress and position of Ontario, noting the

complete railway system we have here, the products of our soil in fruit, wheat, barley, and so forth, our oil fields and undeveloped mines and our extensive commerce, the future of this province is declared to be very great indeed. "Whatever may be the growth of the west, Ontario will assuredly remain for a long time the centre of political and commercial energy in the Dominion. At least if there is any lack of prosperity and influence, it will be in the people themselves not in their stars." British investors are urged to send capital in much larger volume than at present among us. We quote the particular reference which is made to Toronto: "Toronto, its capital, tends to become the literary and intellectual centre of the Dominion, and almost the rival of Montreal in commercial prestige." Ontario is also pointed to as the province which has benefited most largely by the protective system, and contrasting indirectly the moderate protection of Canada with the incidental protection of Great Britain, the writer goes on to say that raw sugar being now admitted free of duty here, "in this important poor man's luxury the Canadian is almost on a level with the British consumer, as he is on a higher level with respect to tea and coffee, which are untaxed"; so that without prejudice the *Times* correspondent is clearly impressed by the Canadian "free breakfast table."

The baneful effect of local politics upon the business and industry of the Maritime Provinces is well depicted. Here is an extract from this portion of the article: "Surely nowhere in our wide British Empire, or in any other country, have so much talent, effort and time been spent in trying to squeeze public and private prosperity out of politics as in the Maritime Provinces of Canada. The attempt has not succeeded. The provinces by the sea, though with most varied resources, remain comparatively poor, while Ontario grows increasingly rich, and Montreal begins to add up its long list of millionaires." But to compensate for the unenviable distinction here made every credit is given to the varied and powerful influence of men born, educated and trained in the Maritime Provinces upon the rest of the Dominion, and among the names mentioned are those of Sir John Thompson, Sir John Abbott, Hon. Mr. Foster, Sir Charles Tupper, Sir Leonard Tilley, Sir Hibbert Tupper, Dr. Dawson, the late S. R. Thompson, the late Chief Justice of the Supreme Court; Sir William Dawson, Principal Grant, Dr. Rand, Dr. Bourinot and Archbishop O'Brien. Extending the list to Britain it includes the names of General Fenwick Williams, the hero of Kars; Sir Provo Wallis, Inglis, of Lucknow; Stairs, Robinson and McKay and Samuel Cunard.

The feature of the canal system of Canada and the great possibilities of inland shipping in connection with the maritime position of the Dominion and in conjunction with the all but completed Chignecto ship railway are dwelt upon by *The Times* correspondent in detail, and the article is closed with some suggestion to British merchants to develop trade with Canada, and to intending British emigrants to look to the Dominion for a home.

The Times editorial writer takes up the former suggestion, saying that the British manufacturer should offer the Canadian consumer "what neither the home manufacturers nor those of the United States can produce." Further on it is added:

"Mr. Goldwin Smith has argued so often and with so much emphasis that the trade between England and Canada must be trivial in comparison with the trade between the latter and the United States, that he has silenced, if not convinced, many of his countrymen. The evidence of our correspondent does not corroborate this theory, and with the changes going

on before our eyes some of the grounds for the theory are crumbling away. The magnificent improvements in the naturally fine inland navigation system described in the letter from which we have quoted make it almost as easy, and often quite as cheap, to land merchandise on the quays of Liverpool as to send it across the 'imaginary boundary line' to which Mr. Smith delights to refer. The new, swift steamship ocean line which the Dominion Government has subsidized must work to the same end. More than two thousand miles of sea flow between the mother country and her offspring. But steam, the telegraph, canals, engineering skill and the wants of trade are daily diminishing that space. Freight, not mileage, is the true mercantile measure of distance, and it will soon not be always easy to say whether Toronto lies nearest to Manchester or to New York or Chicago."

Sir Richard Cartwright, in his criticism of the budget speech the other day, went the absurd length of trying to make out that Britain has a right to complain of the preference given to the United States by the Canadian tariff. Strange that those most interested in British commerce and its rights do not see things in the same light, and probably they would if they were but equipped with the Grit crassness and obtuseness in everything appertaining to the real welfare and the best policy for Canada.

To the Editor of *The Globe*.

SIR,—In your leading, well-written article of this day's issue you highly commended the progress of Great Britain and the United States, and account for the same to the former by her free trade policy. While thus true to a certain extent since 1860, it is only the finishing of the structure, the foundation of which was 73 years of not moderate protection, but absolute prohibition, of foreign competition in manufactures, commerce and the carrying trade, such as no other nation in the world ever dared to approach, going so far as to disallow by fines, heavy penalties, confiscation and imprisonment of persons in the colonies attempting to manufacture certain lines specified in the Act of Parliament, and against the immigration of skilled artisans. (For which see Acts of Parliament, 20th June, 1750, 1785, 25, George III., c. 67). In addition to their restrictive measures, a glance at the protection afforded on a branch of the English industries, iron, from 1782 to 1825, inclusive. I mention this particular branch because of its being a problem now in the process of solution in Canada, and because our people are all crying out, Why not develop our iron resources? and because it will demonstrate to Canadians the fact that England and the United States owe their greatness largely in the iron industry to the protection granted to her native industries in the early years of the trade. From 1782 to 1795 the duty on foreign bars in England was £2 16s. 2d. per ton. It rose to £3 4s. 7d. in 1797. From 1798 to 1802 it was £3 15s. 5d. In two years it had got up to £4 17s. 1d., and from 1806 to 1808 it stood at £5 7s. 5¾d. In the three years, between 1809 and 1812, it was £5 9s. 10d., and in the five years, ending with 1818, it had been £6 9s. 10d. At this date a distinction was made in the interest of British shipping, for while thenceforward until the close of 1825 the duty on foreign bars was £6 10s., if imported in British ships it was £7 18s. 6d, if imported in foreign bottoms, and these were the coarser grades, the finer ones having to pay a duty of from £20 to £50 for every £100 worth imported. Steel and manufactures of steel were treated to a duty of 50 per cent. The duty of 1787 on pig iron was 67s. 2d. per ton, and increased to 130s. in 1819. The duty was wholly abolished in 1860 on iron. And these measures, while

apparently harsh, were undoubtedly the true source of England's greatness.

While the protection of iron industries commenced in the time of Edward III.—its greatest significance dates from 1787—the whole production of England, at this date, was less than the consumption of iron in Canada last year, which was 604,000 tons. In 1796 there were 104 furnaces in operation in England and Wales, many of which were the original charcoal furnaces of small capacity. In 1870 there were 649, with an increased capacity sufficient to meet the increased demand. In 1874 the total quantity of iron ore smelted in Great Britain amounted to 1,585,477 tons. The United Kingdom exported in 1875, 2,457,306 tons, valued at £25,647,267. This information is found in Chambers' History of English Industries and other chronicles of later date.

Next you speak of the United States, and what do we find there? Wonderful progress. The output of pig iron in 1854 was 736,218 tons; in 1890 10,307,028 tons, almost beyond belief, and the population increased from 18,000,000 in 1854 to 65,000,000 in 1890. It surely cannot be denied that this was the outcome of the encouragement that country gave her industries, in the shape of improved transit and duties on foreign competition to home markets, which on pig iron was an average of $8 per ton; finer grades up to 60 per cent; no grade free. These productions, making due allowance for the difference in the cost of labor, can be purchased as cheaply in the United States as in England, and the Americans have entered successfully the markets of England's experts with the increment of their manufactures.

Now, what do we find in Canada, particularly in Ontario? With the exception of a proper iron development, we might term it the great and progressive province of confederation. I think *The Globe* is to blame for the Ontario Government's stand-still policy, and that by intimidating the Reform party, telling them that in any way to encourage a mineral development in this province they would be imitating that devil of an N.P. at Ottawa. Surely it is time that *The Globe* (which is at least reasonably fair on most things) gave up this bugaboo, free trade, until we are established, as are the countries above mentioned, and turned its attention to the true interests of our young and promising country.

The Globe's course in the past has alienated many of its friends in Dominion politics, and while they have stayed heretofore on provincial matters, the signs are ominous of an exit, unless something is done to develop Ontario's 120,000 square miles of mineral belt. Think of Sweden, whose whole area is not greater, with 158 charcoal furnaces, turning out 500,000 metric tons per annum, an industry that nation might well be proud of. Think of Belgium, whose territory is in all 14,000 square miles, with 7,000,000 of a population, four-fifths of which get their living directly and indirectly from the iron industry of that little country. Think of what our Local Government could do if they would only shift from their rocking-horse policy and stop their night-mare antics about the awful letters N.P. and look, and continue to look, on the letters O.P. (Ontario's progress) of the next ten years, under a properly constituted mineral development policy. Then, sir, we would see *Globe* shares readily paying good dividends and bearing a good premium in the stock market quotations.

To bring about this it is not necessary to increase the provincial expenditure. There are several departments, each of which could spare a little to this much-desired improvement. I learn from Mr. Blue's depart-

ment that this Dominion is now only producing one-sixth of its iron consumption (what a disgrace to our representatives). This is owing to the absence of any encouragement to capitalists from our Provincial Government, and the dangling menace of tariff changes that would be fatal to the industry. Our protection is light, being only one-half the average of the past forty years in the States, and with very many grades on the free list. We should have a Dominion bounty up to a certain production, equal to the duty, and made absolute and irrevocable for a period of twenty years. We should have a sufficient number of charcoal furnaces built and run by the local Government to supply our consumption, or give a percentage guarantee to capitalists to build and run them, forcing them to take in and work the iron ore brought in by farmers and private parties from the different mines—a very successful custom in early English times, and which continued down to the era of great companies. In Belgium this kind of custom work is extensively done up to the present day, and it is already commencing in Quebec. I am sorry you cannot see eye to eye with me on this point. You oppose bounties, bonuses and duties to manufacturers, saying it is folly to pay companies these for the purpose of producing something to sell back to the people at a profit. Does not the Ontario Government do this already in educating lawyers, doctors and professions of all grades? Do these gentlemen give their services without profit, and a good round one at that? What about the numbers educated here at public expense and that go to the States? The people generally think that all public money spent on education above the elementary degree is ten times more outrageous than if it were spent in bonusing iron industry, which, if properly encouraged in Ontario, would give us in twenty years ten times our present population by immigration analagous to that of the United States from 1865 to 1885, and fifty years without one day of depression. Then there is the Agricultural College, do the young men turned out from it give their services without profit? Are not the grants to agricultural shows a bonus system and encouragement to the farmers to improve in quality and quantity, and have they not become manufacturers extensively through this encouragement?

I am afraid, sir, if I were to continue, I could show you very many ways in which the Reformers practically countenance the policy initialled N.P. I will conform to your ideas this far, that our circumstances being equal, free trade would be the true policy. To reach that equality, we do not ask prohibitive tariffs for sixty years, as in the case of the United States, nor seventy-three years, as was the case in England, but twenty years of such moderate encouragement as I have above suggested. I trust you will make a head-light of these suggestions, that the Reform party may see their way out of the difficulties in which they are floundering.

R. W. PRITTIE.

This letter, on account of its truth, based on historic facts, was refused publication by *The Globe*, and was published by *The Empire*. Glad were they to get such a valuable contribution.

MOWAT'S SON.

To the Editor of *The Empire*.

Sir,—Your correspondent of Saturday, signing himself "One Who Pays," seems to have acted as a species of friendly critic in disguise, who, while

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WILL BE "PIE" FOR THE PATRON.

The Patron---Well, by gum, if I can trot 'em as hard as that in this here rig, just wait till I get my clothes off.

penning on its face a hostile comment on this appointment, has in effect sheltered this Christian politician at the expense of truth. He puts this young man as receiving $8,000 a year, when in fact he receives at least $15,000, so that if he lives the allotted time instead of having received $240,000 in excess of an allowance of $2,000 a year, he will have received $520,000, and if the $13,000 is invested each year at simple interest he will have received at the age of 70, $1,144,000, so that if unhappily he should only live half that time there will still be upwards of half a million to divide among the family. No such scandalous and shameful piece of jobbery or robbery has ever been perpetrated in Canada. I wonder whether Mr. Mowat considers this a piece of "evidence of Christianity"?

ANOTHER FARMER WHO PAYS.

Toronto, January 22.

THE FIGURES FOR ONTARIO SURPLUS.

The legislators are now discussing the provincial budget, and the probability is that the debate will continue for some days. While the dispute is in progress, it may be well to examine the figures in respect of which the rival parties are arguing. The Government, it will be remembered, claims a surplus of $6,135,000: the Opposition replies that this surplus is, in whole or in part, mythical. Now, if we examine the details of the surplus as claimed, it will be found that it is made up of three different classes of assets. The first is direct investments, consisting of drainage debentures representing loans made to municipalities for which the Government holds the paper of the local councils. The face value of these investments is $500,572. A second series of assets is said to be "capital held and debts due by the Dominion to Ontario." The figures in this case are $4,656,000. The capital is the result of the division of spoils at Confederation. We were to have certain moneys, and from 1867 until this day the exact amount has not been definitely and permanently fixed. But whatever the sum may be in the end, it has to be regarded as an asset existing from the first; and, therefore, when we compare our position at this moment with that of years gone by, we must add it or exclude it in each case. The third batch of assets is composed of bank balances. These represent cash produced by the sale of bonds, or by subsidy receipts from the Dominion. The balances as now given by the Treasurer aggregate $1,000,016.

In order to contrast the present financial condition with that we have formerly occupied, we must, as already observed, either leave out the estimated debt claimed for the Dominion, or include it in every case. For the present, it may be convenient to omit it. Later on, it can be added. At Confederation we opened with a clean sheet. The following year, namely 1868, the sum of $850,000 was invested for us in Dominion bonds. In 1869 $705,000 more was invested in this way. In 1870 and in 1871 further bonds were bought out of the surplus funds, and we had as a consequence $2,747,000 invested in Canadian securities. These bonds with the cash in hand year by year, constituted our actual balance until the long existing claim against the Dominion was added to the account. In 1873 we had $1,646,000 in cash, besides the bonds. This gave us a tangible surplus of $4,394,000. From 1873 until 1878 there was a gradual diminution in the cash balance. It was cut down by one-half in 1875, and it fell to $280,000 in 1878. The surplus in this latter year was $3,027,000, or a million and a quarter less

than in 1873. During 1878 we began to sell the Dominion bonds which had been bought between 1867 and 1871. As a commencement we disposed of $350,000 worth. This sale, together with a further reduction in the cash balance (the result of inconsistent and improper book-keeping and not that of assets of the Province), brought the surplus down to $2,470,000. In 1879 and 1880 we sold the remainder of the bonds, excepting $500,000 worth. This reduced the surplus to $1,063,000. In 1887 $300,000 more of the bonds were sold, and in 1883 the remainder, representing $200,000, was realized upon. While we were disposing of the bonds, however, we were making other investments. For example, we placed $500,000 in the drainage debentures already described. The actual result of the operations has been as follows In 1867 we had nothing; in 1873 we were $4,394,000 to the good; in 1878 the surplus was down to $2,470,000; in 1885, we had $571,000, plus $500,000 of drainage debentures, or $1,071,000 in all. In 1893 we have no bonds, but $500,000 of drainage debentures and $1,000,016 in cash, or $1,500,000 altogether.

Are there any liabilities to charge against the assets? The Treasurer maintains there are none. But we bonused railways and issued certificates under which the companies are to draw so much per annum for a limited period, and in order to cover certain direct payments to railways we sold annuities. That a sum of money voted yearly can be properly termed a liability it is quite proper to deny; but it is difficult to believe that a liability paid on the instalment plan is any less a debt than a liability incurred through the floating of bonds. If annuities and railway grants paid by instalment are not liabilities, then the Dominion Government ought to convert its bonds into annuities, and lift us by this process out of debt. The debts really are debts. According to Mr. Harcourt, they represent without the interest $2,241,886. Now compare 1873 with 1893. In the former year we had actual investments aggregating $4,394,000; in the latter we had $1,500,000 invested and and $2,241,000 owing. To-day, then, we are really $741.000 behind, instead of being, as 1873, $4,394,000 to the good.

Salaries of Provincial Servants. The Wages They Pay Themselves Would Indicate Bosses Rather Than Hired Men.

Officers of the Legislative Assembly.

Clerk of the House and Clerk of the Crown in Chancery, Charles Clarke	$1,800
Assistant Clerk, Arthur H. Sydere	1,500
Clerk, J. M. Delamere	1,000
Accountant, Lud. K. Cameron	400
Law Clerk, A. M. Dymond	600
Sergeant-at-Arms, F. J. Glackmeyer	600
House Keeper and Chief Messenger, P. O'Brien	600

Attorney-General's Office.

Attorney-General, Hon. Sir Oliver Mowat	$7,000
Deputy Attorney General, J. R. Cartwright	3,000
Legal Secretary, A. M. Dymond	800
Assistant Clerk Executive Council, J. L. Capreol	1,600
Clerk and Private Secretary, S. T. Bastedo	1,750

Government Detectives, J. W. Murray, $1,650; J. E. Rogers, $1,350; Wm. Greer, $1,000 .....

Provincial Secretary's Office.

Provincial Secretary, Hon. J. M. Gibson	$4,000
Assistant Secretary, Geo. E. Lumsden	2,300
Chief Clerk, J. B McLachlan	1,200
Minister's Secretary, J. I. McIntosh	1,250

Registrar-General's Department.

Registrar-General, Hon. R. Harcourt	
Deputy Registrar-General, Dr. P. H. Bryce	
Inspector, Col. R. B. Hamilton	
Clerks, T. F. Callaghan, C. M. Pardee, J. M. Ridley, F. Jones, and C. S. Horrocks	
Stenographer, M. H. Smith	

Provincial Registrar's Office.

Deputy Registrar, J. F. C. Ussher	$1,400

Provincial Treasurer's Department.

Treasurer, Hon. Richard Harcourt	$4,000
Assistant Treasurer, D. E. Cameron	2,300
Chief Clerk, F. A. Carrell	1,350
Treasurer, Secretary and Clerk of Algoma Taxes, L. V. Percival	1,550
Cashier, W. C. Noxon	1,150

Provincial Board of Health.

Chairman, Dr. J. J. Cassidy	
Secretary, Dr. P. H. Bryce	
Analyst, J. J. Mackenzie	
Clerk, G. W. Duncan	
Stenographer	

Provincial Auditor's Branch.

Provincial Auditor, C. H. Sproule	$2,400
Book-keeper, A. J. Rattray	1,500

Inspector of Insurance.

nspector, J. Howard Hunter, M.A	$2,800

License and Administration of Justice Accounts Branch.

First Officer, Henry Totten	$2,000
Acting Accountant, J. F. Mowat	1,200

Queen's Printer.

Queen's Printer, L. K. Cameron	$1,800
Assistant Queen's Printer, G. E. Thomas	1,200

Department of Crown Lands.

Commissioner of Crown Lands, Hon. A. S. Hardy $4,000
Assistant Commissioner, Aubrey White 2,800
Law Clerk, G. Kennedy 2,000
Shorthand Writer, Frank Yeigh 1,250

Sales and Free Grants Branch.

Chief Clerk, A. Kirkwood $1,900

This renumeration is double at least what it should be according to the services rendered. Think of the comfort of the county school master at $400 per year, and the county parson at $600 per year and with much harder labour.

Surveys, Patents and Roads.

Director of Surveys, G. B. Kirkpatrick, P.L.S. $2,000
Draughtsman, W. Revell 1,300
Chief Clerk of Patents, J. M. Grant 1,400
Superintendent Colonization Roads, H. Smith 1,900

Woods and Forests Branch.

Chief Clerk, J. A. C. Crozier $1,750

Accounts Branch.

Accountant, D. G. Ross $1,800
Registrar, C. S. Jones 1,500

Mining Bureau.

Director of Mines, A. Blue $2,500

Crown Timber Agents.

Ottawa, E. J. Darby (acting); Parry Sound, D. F. Macdonald; Port Arthur, H. Munro; Sault Ste Marie, P. C. Campbell; Quebec, B. Nicholson; Peterboro, J. B. McWilliams; Rat Portage, W. Margach; Montreal, D. Tasse.

Crown Land Agents.

Apsley, Duncan Anderson; Bracebridge, Wm. Kirk; Brudenell, John Whelan; Eganville, James Reeves; Emsdale, E. Handy; Ems, R. J. F. Marsh; Fort Francis, C. J. Holland and W. Wilson; Haliburton, C. R. Stewart; Kingston, R. Macpherson; L'Amable, J. R. Tait; Magnetewan, S. G. Best; Mattawa, B. J Gilligan; Minden, W. Fielding; Powassan, J. S. Scarlett; Plevna, A. W. Wood; Parry Sound, Mrs. T. McKay; Pembroke, James Stewart; Port Arthur, F. Ruttan; Rat Portage, A. Campbell; Richard's Landing, G. Hamilton; Sudbury, Thomas J. Ryan; Sturgeon Falls, J. D. Cockburn; Thessalon, W. L. Nichols; Massey Station P. O D. G. McDonald.

Department of Public Works.

Commissioner, Hon. C. F. Fraser $4,000
Secretary, Wm. Edwards 2,200
Architect, Kivas Tully 2,500

Engineer, R. McCallum	$2,100
Law Clerk and Accountant, J. P. Edwards	1,300
Architectural Draughtsman, F. A. Heakes	1,400
Engineering Draughtsman, R. P. Fairbairn	1,350
Assistant Engineering Draughtsman, C. G. Horetzky	1,100
Assistant Architectural Draughtsman, T. M. Hennessy	1,050
First Clerk and Shorthand Writer, M. Wilson	1,200
Clerk and Paymaster of Outlying Works, S. G. O'Grady	1,050
Messenger, C. A. McDonald	600

Education Department.

Minister of Education, Hon. G. W. Ross, LL.D.	$4,000
Deputy Minister of Education, John Millar, B.A.	2,300
Chief Clerk and Accountant, F. J. Taylor	1,600
Minister's Private Secretary, Henry Alley	1,350
Senior Clerks, J. T. R. Stinson, H. M. Wilkinson	each 1,300
Senior Clerks, A. C. Paull, F. N. Nudel	each 1,100
Librarian and Historiographer, J. G. Hodgins, LL.D.	2,000
Superintendent Mech. Institutes and Arts Schools, S. P. May, M.D.	1,700

Department of Agriculture.

Minister, Hon. John Dryden	$4,000
Private Secretary, W. B. Varley	900
Deputy Minister and Secretary Bureau of Industries, C. C. James	2,200
Assistant Secretary of Bureau, W. F. McMaster	1,700
First Clerk, W. O. Galloway	1,300
Shorthand Writer, Thos. McGillicuddy	1,000
Clerk of Forestry, R. W. Phipps	1,500

Agricultural College, Guelph.

President, James Mills, LL.D.	$2,000
Professor of Chemistry, A. E. Shuttleworth, B.A.Sc	1,600
Professor of Natural History, J. H. Panton, M.A.	1,800
Farm Superintendent, Wm. Rennie	1,200
Lecturer on Agriculture, G. E. Day	800
Lecturer on Horticultnre, H. L. Hutt	800
Professor of Dairying, H. H. Dean, B.S.A.	1,300
Professor of Veterinary Science, J. H. Reed, V.S.	1,000
Assistant Resident Master, J. B. Reynolds	1,000
Experimentalist, C. A. Zavitz, B.S.A	1,300
Drill Instructor, Capt. W. Clarke	300
Bursar, A. McCallum	1,000

Immigration Department.

Secretary, David Spence	$1,300
Agent in Liverpool, P. Byrne	2,360

Department of Asylums, Prisons and Public Charities.

Inspectors of Prisons and Public Charities, R. Christie, $2,600; T. F. Chamberlain, M.D., James Noxon	$2,400
Chief Clerk, J. Mann	1,300

Asylums for the Insane.

Toronto—

Medical Superintendent, D. Clark, M.D	$2,000
Bursar, Wm. Tracy	1,400

London—

Medical Superintendent, R. M. Bucke, M.D	2,000
Bursar, C. A. Sippi	1,400

Kingston—

Medical Superintendent, C. K. Clarke, M.D	2,000
Bursar, Wm. Anglin	1,300

Hamilton—

Medical Superintendent, J. Russell, M.D	2,000
Bursar, B. Way	1,300

Mimico—

First Physician, J. B. Murphy, M.D	1,400
Bursar, Angus McKenzie	1,000

Asylum for Idiots, Orillia—

Medical Superintendent, A. H. Beaton, M.D	1,600
Bursar, T. J. Muir	1,000

Institution for the Deaf and Dumb, Belleville—

Superintendent, R. Mathison	1,600
Bursar, A. Matheson	850

Institution for the Blind, Brantford—

Principal, A. H. Dymond	1,600
Bursar, W. N. Hossie	950

Central Prison for Ontario, Toronto—

Warden, James Massie	2,000
Bursar, ———	1,300

Reformatory for Boys, Penetanguishene—

Superintendent, Thos. McCrosson	1,600
Bursar, W. P. Band	900

Andrew Mercer Reformatory for Females and Industrial Refuge for Girls, Toronto—

Superintendent, Mrs. O'Reilly	900
Bursar, R. W. Laird	800

Inspector of Division Courts.

Inspector, Joseph Dickey	$1,700

Inspector of Registry Offices.

Inspector, E. F. B. Johnston	$2,000

Superintendent Neglected Children.

Superintendent, J. J. Kelso..... $1,20

There is nothing partizan in a fair examination of the Ontario finances. Where partizanship comes in is where the figures are juggled to show either that they are better or worse than they really are. The fact of the case is that we had a clean sheet at Confederation. In 1873 there was a balance of $4,394,000 in our favour. To-day we have available assets aggregating $1,500,000. Against these assets there is a debt of $2,241,000. This leaves us $741,000. But there are claims against the Dominion. If these are included in the count, we had $4,656,000 at Confederation, $9,050,000 in 1873, and $3,895,000 in 1893. There are a good many buildings to show for our expenditures, and these must not be forgotten. But they are not assets. If they could be so regarded neither Canada nor Toronto could be said to have a liability.

O. A. COLLEGE INVESTIGATION.

To the Editor of *The Globe*:

Sir,—It is now generally known that an investigation was made into the matters pertaining to the Agricultural College at Guelph in the early part of the summer of 1893. This so-called investigation was conducted by the Royal Commission appointed by the Minister of Agriculture of the Province, the members thereof being John Winchester, Master in Chambers; John Watterworth and John S. Pierce.

A report of the findings of that commission was published in August last, along with certain portions of the evidence on which those findings were said to have been based. Copies of this report were scattered broadcast throughout Ontario, and were even sent to other countries. The report claims that the investigation was in response to a petition of the ex-students, some of whose names are subscribed to this letter.

That claim is somewhat misleading. It is true that we did ask for an investigation into the affairs of the Ontario Agricultural College, but we did not ask for an investigation such as was conducted. We asked for an impartial investigation that would do justice to all parties concerned. It never dawned on us that a commission would be appointed for the express purpose of trumping up an apparently plausible excuse for dismissing Prof. Shaw, J. E. Story and H. B. Sharman and whitewashing the shortcomings of Dr. Mills at all hazards. We could not believe that such doings could happen under a government distinguished for its purity (?) and yet that is the sort of investigation that was made.

We did not think it possible that a report so entirely misleading could be drawn up by men dignified with the appellation of investigators. Yet such is the fact; and we now think it high time that the public should be made acquainted with the facts of the case, more especially so far as we are concerned. We wish to say to the people of Canada that we did not get thein vestigation we asked for, but instead thereof an investigation which for partiality and onesidedness is, in our opinion, without parallel in modern times.

The investigation resulted in the virtual dismissal of three of the best and most successful men who ever had any connection with the Ontario Agricultural College. These are Prof. Shaw, J. E. Story and H. B. Sharman. That these results would follow was a foregone conclusion, we believe, with the Minister of Agriculture and the members of the commission. In support of these statements we may say that Mr. Dryden stated to a prominent farmer in his own county, Ontario, that "he would have that man Shaw put out of his position at the college if it cost him his seat." Another influential member of the Ontario Government was heard to remark: "Just wait till that man Winchester gets after Shaw; Winchester is the sharpest man we have."

That the commission virtually decided upon what they would do was evident from the fact (1) that Dr. Mills had worked up the case for the commission before the investigation began; this was evidenced in the many questions put by Mr. Winchester, which were taken from sheets in the handwriting of Dr. Mills. The investigation was sprung upon the other parties without any previous notice, and was actually carried on two days without their being apprised of the fact. (2) It was remarked by nearly every one present that when any evidence was drawn out that would tell against Prof. Shaw, J. E. Story or H. B. Sharman it was followed to the utmost limit; whereas when any evidence that told against Dr. Mills arose it was glossed over, the commission evidently exerting themselves to help him out of the difficulty. (3) In the report as published by the Ontario Government nearly all the evidence that bore against Dr. Mills, and there was much of it, was excluded, while everything that could be made to tell against Prof. Shaw, Mr. Story and Mr. Sharman was published, even though it had been distorted to effect the end designed. And nearly all the evidence, and there was a great mass of it, in favor of those men was withheld from the report. Sentences were taken from the evidence and were made to bear against them, which, if taken in connection with the whole evidence, would be strongly in their favor.

It is implied in the report of the commission that an attempt was made to "defame the good name of Dr. Mills." By whom, we ask, was the attempt made? If we, whose names are attached, are the parties referred to, we deny the slanderous imputation. We asked for a fair and impartial investigation to be made by four ex-students of the college, who were gold medalists and D.S.A.'s, and two of whom attended the college before Mr. Shaw or Sharman were identified with the institution. We laid no charges whatever against anyone, and the only reason we can conceive why the commissioners chose to consider that an attempt was made to defame the name of Dr. Mills was that in their estimation he was defamed. But, as they had been appointed to bring in a report of a certain kind, and in a certain way, they were vainly trying to stifle conviction which existed in their own consciences, and which they knew to be true.

The report as a whole is an outrage on nineteenth century progress, and on every sense of fair play. It is a tissue of misrepresentation and suppression such as has seldom been seen in this country. Nor is this the language of passion or extravagance. We have taken six months to think over this matter, hence if our statements err it is on the side of moderation.

Now if our Local Legislature is going to allow such scandalous proceedings to go on without endeavoring to check them, it is surely high time that the farmers and Patrons of the Province were rising to their feet as one man and demanding that our Ontario Government be reformed. We have it on good authority that the whole of the evidence is being prepared for the printer, we presume for use in the present Legislature. But if the honest representatives of our Ontario people allow themselves to be hoodwinked by that report, then we are over-estimating their shrewdness and discernment. The Department of Agriculture is even now lamenting the fact of having lost (?) several letters and documents handed into the commission at the investigation which are favorable to Prof. Shaw. Will it not be very easy for the designing Minister of Agriculture to lose all other documents that are unfavorable to him or Dr. Mills? We sincerely hope that the honest

representatives of our Ontario people will join hands from both sides of the House of Legislature and demand that the searchlight of justice be turned on the doings of Minister Dryden and Commissioner Winchester.

WM. RENDALL,
W. L. CARLYLE,
R. N. MORGAN,
Members of the Committee.

Toronto, March 9th.

MINERALS IN CANADA.

The St. Louis *Age of Steel* says: "The mineral wealth of Canada is as yet a comparatively unknown reserve of its numerous resources. In abundance, quality and geographical distribution the favors are marked for our northern neighbors. All factors essential or contributory to their economical and successful development are in admirable concurrence. The basis of a national industry is broad and unquestioned, and is only waiting the pioneering pick, the forge and the furnace to unearth its wealth and increase its industrial prosperity. It is slowly but surely hewing its way across the continent. Swamp and forest and broad plateau are being traversed with railroads; lakes and rivers invaded by the ship that follows the canoe of the Indian and voyager, and the nucleus of future towns and cities are being merged along the latitudes, finding their western way to the sea lines of the Pacific. Sooner or later population will spread its wave of life over its vast inhabitable solitudes, and what there is of fertility in its soil, timber in its forests, and iron or coal in its bowels, will respond to the enterprise and needs of man. In this vast territory of three and a-half million square miles are stored nearly all the variety of iron ores known to metallurgy. In Nova Scotia, New Brunswick, in Upper Canada and Ontario, in Manitoba and to British Columbia, these resources are generously grouped. Coal, limestone and hardwood are, as a rule, locally grouped with these iron ores, and nature is ready when Ontario Government is ready by bounties to aid first pioneers to utilize its resources. The conditions of progress, if equal to opportunities and not hampered by economic or political obtusity, will furnish for generations to come a home market for all the iron, raw or manufactured, in Canadian lines. According to statistics, Canada uses 250 pounds of iron per capita, a consumption of 600,000 tons. There are 15,000 miles of railway, which, when laid with standard 72-pound rails, would absorb 1,500,000 tons of rails, the renewals of which, on the calculation of an average service of fifteen years, would make an annual demand of not less than 100,000 tons of iron products. One need not be a prophet to forecast that in other ways less national or wholesale, but more numerous and general, that the home consumption of iron products would urge the activities of production to a normal and healthy degree of business. It is not to be assumed that this is of any possible immediate realization. It will be a matter of growth and possibly the better for not being forced or precipitated, but if wisely nurtured and directed the mineral side of he Canadas will be the basis of its industrial progress." But Mowat and his party will do nothing but discourage the iron development.

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A DISGUSTED DELIVERER.

THIRD PARTY MOSES (wearily): I wish they'd hurry up and find me. This blame thing 's beginning to leak.

THE FEES OF REGISTRARS.

County.	Registrar.	Aggregate Amount of Fees and Emoluments Earned by Registrars by Virtue of Their Office.					
		1888.	1889.	1890.	1891.	1892.	Net Income of Registrars 1892.
Algoma	*R. A. Lyon	$2,837 78	$2,894 25	$1,558 28	$1.120 46	$2,126 38	$1,588 08
Brant	T. S. Stenston	2,998 20	3,780 35	3,663 25	3,100 25	3,268 10	2,269 74
Bruce	Donald Sinclair	7,290 72	7,663 05	6,931 03	5,996 08	5,466 80	2,008 89
Carleton	P. J. Coffey	4,560 10	6,258 90	6,150 91	3,949 10	3,637 95	2,674 70
Dufferin	W. McKim	3,519 60	3,463 02	3,345 20	2,998 55	3,346 20	2,254 45
Dundas	T. A. McDonald	1,655 40	1,685 95	1,738 90	1,638 40	1,479 50	866 50
Durham, E.R.	G. C. Ward	1,420 41	1,468 55	1,131 50	1,267 57	1,287 16	789 11
Durham, W.R	*J. W. McLaughlin	1,466 35	1,429 69	1,225 83	1,174 65	1,052 41	532 41
Elgin	*J. H. Coyne	2,914 77	4,947 30	5,156 85	4,787 80	5,482 10	3,653 44
Essex	J. W. Askin	3,409 89	10,162 02	3,639 70	7,302 66	7,844 89	3,269 39
Frontenac	*J. D. Thompson	No return	2,474 83	2,245 45	2,248 65	2,262 50	1,921 20
Glengarry	John Simpson	1,689 99	1,851 25	1,686 15	1,363 90	1,412 64	1,081 89
Grenville	Patrick McCrea	2,110 25	2.013 15	1,931 95	1,929 70	1,742 60	882 60
Grey, N.R	Robert McKnight	5,082 35	5,565 65	5,167 75	3,852 85	3,592 70	2,504 70
Grey, S.R	Thomas Lauder	3,166 07	2,993 08	2,835 83	2,708 85	3,254 47	2,088 63
Haldimand	*William Parker	2.273 88	2,493 25	2,331 82	2,347 41	2,318 25	1,288 25
Haliburton	*E. C. Young	358 30	397 60	347 41	431 15	361 65	361 65
Halton	*D. Campbell	2,596 25	2,395 05	2,545 60	2,262 85	2,140 05	1,189 74
Hastings	H. D. Day	5,741 95	5,403 10	4,327 87	5,086 50	4,943 70	2,789 75
Huron	J. Dickson	7,529 30	7,237 95	6,367 55	5,708 30	4,776 80	2,187 40
Kingston	*J. J. Gildersleeve	1,709 30	1,948 10	No return	1,665 43	1,134 16	583 63
Kent	P. D. McKellar	No return	No return	7,195 15	6,442 30	6,801 65	2,875 39
Lambton	*A. McLean	7,931 00	8,574 10	8,148 65	7,404 05	7,674 77	2,757 94
Lanark, N.R	J. Menzies	1,118 31	1,172 60	1,152 51	1,059 95	1,016 10	903 75
Lanark, S.R	J. Bell	2.291 80	2.298 80	2,154 24	1,911 55	1,941 30	1,147 90
Leeds	W. H. Cole	4,806 15	4,079 20	3,821 06	3.512 35	3,460 47	1,911 13
Lennox & Addington	Stephen Gibson	2,289 25	2,022 20	1,858 50	1,714 40	2,037 60	1,459 80
Lincoln	J. G. Currie	3,894 90	3,404 00	3,298 30	3,036 45	3,330 20	2,789 24
London	W. C. L. Gill	2,742 06	2,681 70	7,361 24	2,730 80	2,678 87	2,018 78
Manitou lin District	D. R. Springer	291 05	946 05	No return	388 45	467 25	445 19

Kent	P. D. McKellar	1,709 30	1,948 10	No return	1,665 43	1,134 16	583 63
Lambton	*A. McLean	No return	No return	7,195 15	6,442 30	6,801 65	2,875 39
Lanark, N.R	J. Menzies	7,931 00	8,574 10	8,148 65	7,404 05	7,674 77	2,757 94
Lanark, S.R	J. Bell	1,118 31	1,172 60	1,152 51	1,059 95	1,016 10	903 75
Leeds	W. H. Cole	2,291 80	2,208 80	2,154 24	1,911 55	1,941 30	1,147 90
Lennox & Addington	Stephen Gibson	4,806 15	4,079 20	3,821 06	3,512 35	3,460 47	1,911 13
Lincoln	J. G. Currie	2,289 25	2,022 20	1,858 50	1,714 40	2,037 60	1,459 80
London	W. C. L. Gill	3,894 90	3,404 00	3,298 30	3,036 45	3,330 20	2,789 24
Manitou lin District	D. R. Springer	2,742 06	2,681 70	7,361 24	2,730 80	2,678 87	2,018 78
		291 05	946 05	No return	388 45	467 25	445 19

Middlesex, E. & N.R	*W. C. Noble	No return	5,392 40	4,933 52	4,121 30	3,629 50	2,779 15
Middlesex, W.R	S. Blackburn	2,563 95	2,945 50	2,042 10	1,879 60	2,214 40	1,667 40
Muskoka District	J. E. Lount	2,416 15	2,604 65	1,789 40	1,760 40	1,681 40	1,256 40
Nipissing District	W. Doran	453 10	550 40	686 67	635 00	585 10	585 10
Norfolk	A. J. Donly	3,653 85	4,027 95	3,806 20	3,989 75	3,655 30	1,958 70
Northumberland, E.R	*A. E. Mallory	3,452 39	3,041 81	3,061 60	2,787 96	2,525 38	1,792 38
Northumberland, W.R	W. H. Eyre	1,527 35	1,472 15	1,542 50	1,391 20	1,266 40	963 10
Ontario	J. H. Perry	4,131 25	3,974 85	3,962 95	3,958 20	3,523 60	2,535 13
Ottawa	A. Burritt	3,355 40	4,223 50	4,436 45	5,120 30	3,783 55	2,530 39
Oxford	G. R. Pattullo	6,186 65	6,101 15	5,744 60	5,150 30	5,279 60	3,061 70
Parry Sound District	*Thos. Kennedy,	1,702 35	1,611 75	1,443 55	1,227 35	1,402 80	1,076 15
Peel	*J. G. Sheppard	2,989 80	2,592 50	2,966 35	2,687 20	2,000 35	1,705 35
Perth, N.R	D. D. Hay	3,337 80	3,303 60	3,088 60	2,826 00	2,726 90	1,708 10
Perth, S.R	P. Wheelihan	1,851 35	1,898 55	1,749 50	1,398 95	1,519 85	738 50
Peterboro'	B. Morrow	4,321 50	4,042 60	4,063 50	3,903 80	3,955 35	2,625 75
Prescott	J. Higginson	2,247 50	2,274 85	2,127 73	1,893 77	1,929 35	1,542 85
Prince Edward	W. McKenzie	2,255 45	2,077 34	1,902 49	1,776 12	1,621 09	821 09
Rainy River District	F. J. Apjohn	298 65	454 55	530 12	579 85	611 65	611 35
Renfrew	A. Irving	3,194 80	3,130 90	3,038 50	2,754 40	3,112 85	2,040 25
Russell	J. Keays	1,725 80	1,944 50	1,992 40	1,526 60	1,400 32	1,150 32
Simcoe	S. Lount	No return	8,475 09	8,286 51	8,229 70	7,992 30	2,511 22
Stormont	John Copeland	1,647 68	2,064 70	2,005 50	1,773 60	1,799 30	896 40
Thunder Bay District	J. M. Munro	1,564 10	No return	1,502 10	1,614 30	1,480 30	941 30
Toronto W	Chas. Lindsey	37,789 95	51,894 02	23,002 95	19,721 90	16,719 95	4,501 02
Toronto E	*Peter Ryan	.....	.....	17,163 15	15,300 85	24,797 41	3,823 38
Victoria	C. D. Barr	3,335 36	3,492 60	3,480 50	1,591 54	3,375 30	2,361 54
Waterloo	*Isaac Master	4,030 89	5,429 75	4,513 70	4,342 25	3,701 00	2,084 30
Welland	J. E. Moran	3,465 60	4,639 95	3,787 70	4,723 81	5,682 95	3,505 53
Wellington, N.R	J. Anderson	2,700 00	3,101 85	2,841 90	2,720 15	2,942 15	1,892 15
Wellington, S. & C.R	H. Higinbotham	3,317 54	3,172 25	2,838 25	2,717 25	3,055 35	2,254 93
Wentworth	*Lewis Springer	8,371 25	9,319 10	No return	9,270 05	8,170 58	3,347 29
York, E. & W.R	John Ridout	13,704 70	18,564 60	15,812 25	12,366 95	8,947 35	1,084 50
York, N.R	J. J. Pearson	2,625 25	2,676 55	2,411 60	2,130 10	2,353 40	1,499 40
Totals		$303,971 80	$287,761 32	$397,923 39	$230,032 01	$233,793 30	$117,934 59

Grand total of fees collected, $1,453,481.82. [The names in the list are the present holders of offices, as set forth in the returns. Those marked * have been appointed within the five years. The Toronto office was divided in 1890 to make room for Mr. Ryan. Returns from Elgin cover only the period from January 1 to August 10.]

THE FEE SYSTEM.

A Statement Showing the Earnings of the Sheriffs of Ontario.

The Enormous Amounts which the People Contribute Yearly in Court Charges.

County.	Name.	Total Earnings and Salaries.				
		1888.	1889.	1890.	1891.	1892.
Algoma	W. H. Carney	$2,189 59	$2,377 53	$2,350 59	$2,094 74	$1,957 53
Brant	W. J. Scarfe	2,835 76	3,086 40	2,380 45	.....	2,669 12
Bruce	W. Sutton	5,130 10	4,670 19	3,915 88	3,471 64	.....
Carleton	G. Sweetland	5,998 35	6,082 28	5,655 30	6,531 31	5,323 90
Dufferin	Thos. Bowles	2,532 52	2,278 75	2,904 33	2,199 81	2,329 65
Elgin	Dugald Brown	4,612 53	4,622 18	3,236 57	3,205 57	2,713 56
Essex	J. C. Iler	4,320 00	4,344 46	5,170 36	4,006 11	3,951 06
Frontenac	Wm. Ferguson	1,835 97	2,307 05	2,307 36	2,069 51	1,732 55
Grey	C. H. Moore	4,444 62	4,018 59	4,979 70	3,298 66	3,311 52
Haldimand	R. H. Davis	2,084 78	2,080 59	2,104 86	2,204 80	2,205 32
Halton	M. Clements	1,777 14	1,579 67	1,602 60	1,641 70	1,522 79

Bruce	W. J. Scarfe			$2,390 39	$2,094 74	$1,957 53
Carleton	W. Sutton	2,835 76	3,086 40	2,380 45	.....	2,669 12
Dufferin	G. Sweetland	5,130 10	4,670 19	3,915 88	3,471 64	.....
Elgin	Thos. Bowles	5,998 35	6,082 28	5,655 30	6,531 31	5,323 90
Essex	Dugald Brown	2,532 52	2,278 75	2,904 33	2,199 81	2,329 65
Frontenac	J. C. Iler	4,612 53	4,622 18	3,236 57	3,205 57	2,713 56
Grey	Wm. Ferguson	4,320 00	4,344 46	5,170 36	4,006 11	3,951 06
Haldimand	C. H. Moore	1,835 97	2,307 05	2,307 36	2,069 51	1,732 55
Halton	R. H. Davis	4,444 62	4,018 59	4,979 70	3,298 66	3,311 52
	M. Clements	2,084 78	2,080 59	2,104 86	2,204 80	2,205 32
		1,777 14	1,579 67	1,602 60	1,641 70	1,522 79

Hastings	Wm. Hope	4,805 54	4,209 27	4,757 53	4,837 09	4,733 90
Huron	H. Gibbon	4,422 62	4,066 66	3,452 38	3,473 74	3,121 21
Kent	John Mercer	4,133 12	4,421 53	4,003 31	4,019 34	3,593 97
Lambton	J. Flintoft	3,342 17	3,706 93	3,171 44	3,001 29	2,852 35
Lanark	J. Thompson	1,743 33	1,683 86	1,717 86	1,573 25	1,527 54
Leeds and Grenville	J. Smart	4,028 02	4,500 04	4,039 29	3,211 64	3,169 80
Lennox and Addington	O. T. Pruyn	2,742 92	2,002 69	2,459 26	1,900 04	1,417 77
Lincoln	T. C. Dawson	2,895 80	2,572 89	2,485 52	2,096 95	2,228 36
Middlesex	Wm. Glass	5,286 67	5,091 16	4,361 69	4,283 31	4,373 27
Muskoka	J. W. Bates	956 71	1,352 59	1,554 34	1,308 30	1,403 98
Parry Sound	H. Armstrong	636 84	1,775 79	2,118 36	1,451 06	1,643 94
Norfolk	E. Deedes	2,609 65	2,968 09	2,573 58	2,482 23	1,766 11
Northumberland & Durham	T. O. Proctor	6,371 08	5,015 13	3,796 78	3,879 02	3,379 97
Ontario	J. F. Paxton	3,149 70	2,405 73	3,203 59	2,882 81	2,461 78
Oxford	G. Perry	2,804 88	2,886 37	2,036 26	2,434 10	3,032 08
Peel	R. Boddy	2,883 04	2,350 78	2,433 84	2,220 94	2,626 95
Perth	J. Hossie	4,610 37	3,340 78	2,698 88	2,777 54	2,486 80
Peterboro'	J. A. Hall	2,172 28	2,350 70	2,346 98	2,362 47	2,247 17
Prescott and Russell	A. Hagar	2,273 28	2,433 38	3,286 78	2.884 56	1,974 75
Prince Edward	J. Gillespie	1,643 86	1,555 19	1,565 01	1,728 13	1,625 29
Rainy River	W. H. Carpenter	1,392 42	1,727 59	1,823 14	1,947 84	1,813 61
Renfrew	J. Morris	2,840 44	2,516 67	3,027 32	2,463 06	2,480 34
Simcoe	T. D. McConkey	6,586 65	6,014 02	5,255 01	4,514 20	4,357 51
Stormont, Dundas and Glengarry	D. E. McIntyre	3,293 27	4,018 95	3,635 29	3,293 97	3,068 06
Thunder Bay	A. W. Thompson ('90)	3,737 21	2,708 70	2,669 40	2,126 80	2,663 83
Victoria	J. McLennan	2,647 04	2,814 82	2,671 39	2,379 23	2,337 64
Waterloo	Moses Springer	3,729 31	2,678 35	2,557 79	2,915 82	2,508 50
Welland	G. W. Duncan	2,478 12	2,354 24	3,370 06	2,112 81	2,394 79
Wellington	R. McKim	3,846 54	3,243 23	3,002 10	2,413 30	2,845 44
Wentworth	A. McKellar	6,510 45	5,701 57	5,381 93	5,263 03	5,593 12
York	Dr. Widdifield	458 17	8,369 77	8,819 28	7,352 27	9,118 29
Toronto	Fred Mowat	17,286 39	18,445 02	8,828 76	17,662 83	17,566 10
Totals		$155,879 25	$159,140 08	$149,712 15	$140,984 82	$136,232 32

Total earnings for the five years, $741,948.62.

THE FARMER AS A MANUFACTURER.

To the Editor of *The Empire*:

Sir,—It is very gratifying to see that the farmer all over the country is beginning to recognize himself as a manufacturer. The manufacture of cheese according to a system which is becoming more and more perfect, has placed the farmers of Canada upon a high pinnacle of fame, the eminence of which cannot fail to attract the agricultural and commercial eyes of the world.

The manufacture of butter has long been neglected, but thanks to the efforts of the late and present Minister of Agriculture, at Ottawa, it is now becoming more general, and the number of butter factories is fast multiplying. The creamery article means 25 or 30 cents per pound and a product of one pound more in every five than the old method of skimming and churning. Moreover, the factory butter, like the factory cheese, is uniformly good and an export article. Some $13,000,000 came to Canada last year as the value of our crop of cheese, and this large sum will now, no doubt, be largely increased from year to year. It must not be forgotten, however, that large areas in the different provinces are more suitable for the production and manufacture of butter than cheese.

A variety of soil and circumstances make butter the more profitable, and it is therefore of the highest importance that the article should be made at factories similar to cheese and with like results. At the present time it is roughly estimated that out of every 500 pounds of butter 499 are made in the old wasteful way of each farmer making his own quality and disposing of it to the storekeeper, who deposits it in common with an accumulating stock in the cleanest corner of his cellar to be sold, if at all, as a third-rate article. Statistics which would even approximately show the loss in this connection would justify the Department of Agriculture in redoubling present efforts to lessen this waste. The farmer may be slow, but he is appreciative, and while he recognizes that he is a manufacturer, and, as such, must produce the best and most approved commodities which an exacting market demands, he has a right to expect that the Government will take practical steps in assisting him to determine the most profitable goods to manufacture and how to accomplish it.

It is true that the experimental farm at Ottawa has already done much for the agriculture of this country, but has it come close enough to the farmer to instruct, advise and influence him so that in his farm he has a manufactory for turning out the best products of beef, butter, bacon, cheese, eggs and poultry, or without such influences is he denouncing the Government because they do not make barbed wire cheaper to fence in his impoverished acres of wheat and barley, the production of which, particularly in the old provinces, is on a par with the manufacture of horse street cars, horse power threshing machines and key winding watches.

Agriculture is the greatest interest; applied intelligence upon a scientific and business basis would give us unmeasured wealth of agricultural products. A good beginning has been made. Let a wisely paternal Government continue the work with all speed, and give to the farmer that instruction and education which will put him on a higher plane than the manufacturer of wood, iron, etc., as he always has a more substantial asset in his plant and a world wide market in which to sell his products. I submit that at the present time the Canadian farm manufacturer is making better profits than the Canadian manufacturer of iron, etc., who is alleged to be so highly protected, and certainly making more money that the tiller of the soil either in England or the United States.

The fullest measure of prosperity would be ours if the Canadian farmer everywhere recognized his position and status as a manufacturer, and to this end the Government are working, but too slowly, commensurate with the end to be obtained.

Toronto, January 26. JAMES ARMSTRONG.

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MSTRONG.

PATRON VOTE.

SIR OLIVER.—"You have provoked me beyond further pardon."

OUR FARM EXPORTS.

The exclusion of Mr. Herbert Gardner from the Rosebery government renders it probable that the order scheduling Canadian cattle may be rescinded. Mr. Gladstone and those near to him were not too friendly too the Dominions beyond the sea. They resembled Mr. Bright in that they regarded the distant possessions as burdens, rather than as integral portions of the Empire. Lord Rosebery is a man of a different type. He is Imperial in views, and during the days of the Federation League was favorable to the cause it advocated. "If I were to tell you," he said, at Edinburgh, in 1887, "what is the real foundation of all my politics, party or otherwise, I should say that it lies in that closer union of the Empire which is absolutely and essentially required, not merely for our predominance, but for our future existence." The Federation proposal is, perhaps, nebulous; but the principle of common action underlying it is sufficiently defined, and it is not unreasonable to suppose that a Premier imbued with that principle, as Lord Rosebery says he is, may be disposed to remove the unnecessary restriction upon trade which the scheduling order has imposed. At all events, in view of the changed conditions politically, and of the urgent demand of the Scotch farmers for repeal, the effort to secure a return to the old arrangement may be well worth making.

In the meantime, the growth of our trade with Great Britain in agricultural products challenges consideration. The Washington Bureau of Statistics reports for 1893 a decrease of farm exports from the United States to England. Less wheat, less flour, less beef, canned and fresh, and less provisions found their way across the ocean than in previous years. It is the opinion of the experts that this result arises from the keen competition of other countries in the British market. For example, Russia and Argentina shipped to England half as much wheat as did the United States. As a consequence of the presence of new factors in the great consuming centre, the rumor has gone abroad that there will be a curtailment of the wheat acreage in the great wheat growing States, and an attempt to diversify production. Should this report which lacks verification, prove correct, the reduced output, together with the expected new demand resulting from the passing away of the depression, will have a satisfactory influence upon prices. But aside from this important consideration, we have in the Washington report the announcement that United States exports to Great Britain have dropped at the very time ours have increased. That a still greater advance can be made by Canada must be apparent to all who will compare the agricultural imports of Great Britain with the share the Dominion now supplies. We are, as a matter of fact only on the edge of the great British market. Look, for instance. at the trade in horses. In 1889 we exported to England 167, valued at $26,000. Last year the number was raised to 1,946, valued at $300,000. The British market can take 21,000 annually, at a value of two millions. Of cattle last year we sent $7,400,000 worth, while the market consumes $45,000,000 worth of such animals from abroad. In bacon and hams we have in recent years made an advance. The value exported in 1887 was $377,000; the value in 1893, $1,200,000. But Great Britain consumes $55,000,000 worth of these meats over and above the native production. Canned meats appear among our British exports in increasing quantities, and we now send a million dollars' worth. In beef alone, however, there is a $10,000,000 market. We are enlarging our cheese exports; but while we send $13,000,000 worth, there is a demand for cheese to the value of $30,000,000. It is strange that we have not done better in butter. The butter buisness, however, is growing. We have passed the million dollar limit. This, however, is but small progress, when it is remembered that Great Britain takes sixty million dollars' worth of butter from abroad. In grains, flour, and hay, we do relatively little at present in the British market.

There is a vast field for the Canadian farmer yet unoccupied. Confessedly, however, little can be done unless the prices be low. England will take from us nothing that she can buy at a cheaper rate from others. This is our policy with reference to British goods, and it cannot be regarded as selfish or unfair. We must be prepared, then, for the competitive figure. This necessity impresses upon the various Governments, Federal and Local, the desirability of restraining their tendency to launch the country into huge and expensive projects which, while producing a boom for the moment, react upon the farmer, and limit his powers as an exporter.

PIG IRON INDUSTRY THE FOUNDATION AND MAINSPRING OF ALL OTHER INDUSTRIES.

Ontario has an area of 244,000 square miles, the mineral area of which is 128,000 square miles. In the twenty-two years of Mr. Mowat's leadership not one ton of pig iron has been produced, and the population has only increased 442,000.

Pig iron production of the United States in the said twenty-two years was 118,902,022. Seventy-eight per cent. of this enormous production was the output of fourteen states to the south of us, with a combined area of only that of this province, and with a combined mineral area of only thirty-eight per cent. of that of Ontario, and the municipal, state and federal encouraged industry caused a 40,000,000 increase in population in the whole United States, more than half of which is in the result of the fourteen states, above noticed, namely: Connecticut, Delaware, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont. In the twenty-two years of Mowat reign the population of the fourteen states of themselves increased 17,000,000, and this enormous influx came because of the iron industry and created an increasing market for an increasing production from year to year, besides producing a home market for all the farmers' output in these states at vastly increased prices over those where no iron production was going on, the result of the large numbers engaged in the industry, and their large earnings, ranging as high as $10 per day for experienced hands, also greatly increased the chances of success in all grades of labor and the professions, keeping to home their own people who desired to embark in these lines of life, and drawing all that element from Ontario who had similar notions. Had Mr. Mowat and his followers devoted more time and attention to a similar policy this province would now enjoy a similar position to said fourteen states, but no, they would rather sit in their easy chairs drawing fat salaries and exert themselves in meddling with the Ditches and Water Courses Act, Municipal and Assessments Acts and generally confounding the statutes till they, themselves, did not understand them, and have had on too many and very expensive occasions to visit England for interpretation of their mixed and muddled legislation, and became celebrated as constitutional lawyers, and at the expense of the province. Such procrastination and lethargy and phlegmatic indifference to the best interest of this prodigious mineral heritage of ours deserves but one treatment, and that is to be turned, bag and baggage, out of office on the next election day. No excuse

or subterfuge will be taken for this twenty-two years' blundering, for this twenty-two years full of meretricious tactics and funeral procession progress, and bombastic bookkeeping, to all of which the people have at last got their eyes opened, and discontent and unrest is now rampant, and the voters all over the province are waiting eagerly and anxiously for the day to arrive when they can mark their ballots in favor of any candidate opposed to Sir Oliver Mowat and his conferes, that we may yet redeem ourselves from the sleeping condition which they, from want of a proper and vigorous mineral policy, have thrown us, and take upon ourselves that business enterprise that will give us ten times the home demand for our farm products and at greatly increased prices, and that will give business employment for those of our sons and daughters who choose such for a livelihood and at remunerative salaries, according to their talents. The statements herein made are proven by the statistics in this pamphlet and are taken from the records of the Ontario Parliament at Toronto, the Dominion Parliament at Ottawa, the United States Government records at Washington, all of which places them beyond doubt, notwithstanding anything that may be said by politicians for the purpose of evading the truth of this exposure.

For every 25,000 tons output of pig iron 1,300 men are kept constantly employed and 1,100 horses. What a market for labor and skilled artisans and horseflesh! How spry many of our otherwise smart villages and towns would look with a couple of these blast furnaces, and think of the currency in money this would bring, to say nothing of the other manufacturing establishments that would follow in their wake, and ore and coking coal could be brought to them just as it is from Lake Superior to Chicago and Cleveland, and the freight would be considerable less than to the above cities, and the duty on iron from Alabama and other southern states to the Ontario market which now consumes 604,000 tons of pig iron, and this consumption will quadruple now that the embargo has been put on scrap iron, but none of this prosperity will come with Mowat party in power. So vote them out the next chance you get.

Think of the farmers allowing their farms to go idle because persons would not come in and pay exorbitant rents. In a nutshell this is the position of the Mowat Government with our great mineral heritage. Our adherence to such politicians must now drop and see if we cannot put in a party with greater statesmanship, greater capacity, greater progress, that we may have a chance to develod our great mineral heritage and make some money for ourselves and children.

ONTARIO'S IRON ORES AT THE WORLD'S FAIR.

As an appendix to this paper I give the Catalogue of Iron Ore exhibits made by the Province of Ontario at the World's Columbian Exposition, prepared by Mr. David Boyle, the officer in charge. It will be noticed that numerous localities are represented in this collection to which no reference has been made in the following pages. The number of samples shown is 120.

1. Magnetite : Wilbur mine, lot 3, concession 13, township of Lavant, county of Lanark. Extent of deposit, 1,200 feet by 15 feet. Average lots analyze 60 per cent. iron, 6.31 per cent. silica, and .009 per cent. phosphorus, but the sample exhibited will yield about 68 per cent. iron. William and Thomas B. Caldwell, Lanark.

14. Magnetite : Lot 22, concession 9, township of Wollaston, county of Hastings. Length of deposit, one-quarter of mile ; breadth, 25 feet. Thomas Nugent, Nugent P.O.

15. Magnetite : Lot 17, concession 8, township of Wollaston, county of Hastings. William Jenkins, Madoc.

16. Magnetite : Lot 15, concession 2, township of Wollaston, county of Hastings. Area of deposit, 500 feet by 180 feet. Clute & Brown, Belleville ; Jenkins & Chambers, Madoc.

17. Magnetite : Lot 17, concession 8, township of Wollaston, county of Hastings. Area of deposit, 1,500 feet by 30 to 120 feet. Clute & Brown, Belleville ; Jenkins & Chambers, Madoc.

18. Magnetite : Lot 18, concession 8, township of Wollaston, county of Hastings. Samples from a depth of 20 feet. Area of deposit, 1,500 feet by 40 to 60 feet. Clute & Brown, Belleville ; Jenkins & Chambers, Madoc.

19. Magnetite : Lot 15, concession 1, township of Wollaston, county of Hastings. Length of bed, 1,200 feet ; breadth, from 25 feet to 100 feet. Jenkins & Chambers, Madoc.

20. Magnetite : Township of Wollaston, county of Hastings. Jenkins & Chambers, Madoc.

21. Magnetite : Lot 16, concession 2, township of Wollaston, county of Hastings. Area of deposit, 1,400 feet by 25 to 50 feet. Clute & Brown, Belleville ; Jenkins & Chambers, Madoc.

22. Magnetite : Township of Wollaston, county of Hastings. Jenkins & Chambers, Madoc.

92. Magnetite : Calabogie mine, lot 16, concession 8, township of Bagot, county of Renfrew. An analysis of one lot gave 66.34 per cent. iron, 1.04 silica, .140 phosphorus, titanium a trace, and no sulphur. Calabogie Mining Company (Limited), Perth. Ontario Government collection.

93. Magnetite : Between the Canadian Pacific Railway and Amethyst Harbor, township of McGregor, Thunder Bay district. From a bed showing seven feet and the lower rock not yet reached. It lies in the lower portion of the Animikie rocks. Ontario government collection.

94. Magnetite : Locations 1 and 2, Herrick's survey, at mouth of Little Pic river on west side, Thunder Bay district. The Canadian Pacific Railway passes through the locations. Ontario government collection.

95-100. Hematite : Lots 23 to 27, concessions 11 and 12, township of Darling, county of Lanark. James Bell, Arnprior.

101. Magnetite : Atik-Okan range, location 402 R, Thunder Bay district. It is free from injurious combinations, and runs from 63 to over 70 per cent. of iron. The deposit forms a mountain range with the associated Huronian green schists and diorites, rising to an elevation above the surrounding plain of 50 to 125 feet, and extending along the run of the ore for nearly a mile. There are two veins of ore, with 50 feet to 60 feet of slate between, and for a good portion of the distance the veins will aggregate a thickness of 100 feet. South Shore iron experts who

have examined the location pronounce it one of the best iron deposits known. H. A. Wiley, Port Arthur.

103-105. Magnetite: Lot 16, concession 9, township of Bagot, county of Renfrew. Ontario Government collection.

106-108. Specular: Lot 29, concession 14, township of Clarendon, county of Frontenac. Large deposit, fully 1,000 tons in sight; partly developed. Allison & Platt, Adolphustown.

109. Magnetite: Lot 17, concession 10, township of Portland, county of Frontenac. William Pursey, Verona.

110. Magnetic iron sand: Shore of Lake Superior, between White and Cascade rivers. Vein eight inches deep, traced for one thousand feet. F. A. Fenton, Toronto.

160. Magnetite: Lot 27, concession 4, township of Snowdon, county of Haliburton. T. D. Ledyard, Toronto.

161. Magnetite: Lot 5, concession 6, township of Lutterworth, county of Haliburton. T. D. Ledyard, Toronto.

163. Magnetite: Lot 25, concession 4, township of Snowdon, county of Haliburton. T. D. Ledyard, Toronto.

165. Limonite: Township of Snowdon, county of Haliburton. T. D. Ledyard, Toronto.

166. Magnetite: Lots 13 and 14, concession 10, township of Bagot, county of Renfrew.

167. Magnetite: Township of Clarendon, county of Frontenac. Allison & Platt, Adolphustown.

168. Magnetite: Paxton mine, township of Lutterworth, county of Haliburton. T. D. Ledyard, Toronto.

169. Magnetite: Mountain mine, township of Lake, county of Hastings. R. C. Clute, Belleville.

170. Hematite (specular): Echo lake, Algoma district. P. C. Campbell, Sault. Ste. Marie.

171. Magnetite: Lot 4, concession 9, township of Palmerston, county of Frontenac. Surface shows 200 by 50 feet. Analyzes 66 per cent. iron, 2.14 per cent. silica, and only traces of phosphorus and sulphur. Ontario Government collection.

172. Magnetite: Wilbur mine, lot 4, concession 12, and lot 4, concession 13, township of Lavant, county of Lanark. Area of deposit, 1,200 feet by 15 feet. Average lots analyze 60 per cent. iron, 6.31 per cent. silica and .009 phosphorus. W. C. Caldwell, Lanark. Ontario Government collection.

174. Magnetite: Iron Duke mine, township of Darling, county of Lanark, five miles from the Kingston and Pembroke Railway. Contains by analysis 65.33 per cent. metallic iron, .017 phosphorus, and no titanium. Extent of location, 3,000 acres. Wylie & Co., Carleton Place.

175. Hematite Echo Lake, East Algoma district. P. C. Campbell, Algoma Mills.

176. Hematite (specular): Echo Lake, East Algoma district. P. C. Campbell, Algoma Mills.

177. Hematite (kidney): Silver lake, Thunder Bay district. It analyzes 68 to 69 per cent. of metallic iron, with no injurious ingredients in combination; seems to be in large quantities, but owing to irregularity will require development to show the actual extent; is the same kind of ore, and is in the same geological horizon as that of the famous Colley mine of the South shore of lake Superior. It has been explored to a small extent by mining. P. McKellar, Fort William. Ontario government collection.

178. Magnetite: Lot 25, concession 4, township of Snowdon, county of Haliburton.

179, 180, 184, 187, 191, 192. Magnetite: Belmont mine, township of Belmont, county of Peterborough.

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PATRON.—"Let the fellows carry the load who get the pap. I am out of it for the future."

181, 183, 185, 186. Magnetite: Lot 25, concession 4, township of Snowdon, county of Haliburton. Several outcrops of ore on lots 25, 26, and 27, extending at intervals over a space of nearly three-quarters of a mile, situated on high ground overlooking the railway track, and ore may be raised and loaded on the cars for one dollar per ton. Analysis of ore from lot 25 gave metallic iron, 62 per cent.; sulphur, 025, phosphorus, a trace, and no titanium. From lot 27 gave metallic iron, 62.57; phosphorus, .025; sulphur and titanium, none. The Irondale, Bancroft and Ottawa Railway runs through lots 25 and 26, and in front of 27, connecting with the Midland branch of the Grand Trunk, about eight miles west of the mines. T. D. Ledyard, Toronto.

188. Hematite: Township of Darling, county of Lanark. Wylie & Co., Carleton Place.

189. Hematite: Township of Madoc, county of Hastings. Mrs. J. A. Wallbridge, Belleville.

190. Hematite: Iron island, Thunder Bay district. Ontario Government collection.

284. Magnetite: Lot 19, concession 1, township of Belmont, county of Peterborough. "A railway is now being constructed to the Belmont mine. It has been estimated that this ore bed contains over 1,000,000 tons of ore within 100 feet of the surface, and the stripping is very light. The ore bed has been thoroughly explored, and of the numerous samples which I have analyzed the above example is a fair average. It will be noticed that this ore equals the best of the famous Swedish Dannemora ore in regard to its low phosphorous contents, contains much less sulphur, and from 10 to 20 per cent. more iron." Wm. Molin in the Engineering and Mining Journal, November 19th, 1892, p. 484. Bessemer Iron Mining Co.

301. Magnetite: Lots 9 and 10(400acres), concession 8, township of Bathurst, county of Lanark. Analysis shows metallic iron 65.07, insoluble silicious matter 6.66, soluble silica 44, sulphur .05, phosphoric acid .06, alumina .06, lime .16. John Hart, Perth.

302. Magnetite: Atik-Okan location (see 101), Thunder Bay district. W. W. ssell, Port Arthur.

368. Specular: Township of Loughborough, county of Frontenac. W. G. Kidd collection.

370. Magnetite: Township of North Crosby, county of Leeds. W. G. Kidd collection.

371. Magnetite: Robertsville mine, towinship of Palmerston, county of Frontenac. W. G. Kidd collection.

372. Magnetite: Wilson location, township of Lavant, county of Lanark. W. G. Kidd collection.

373. Magnetite: Glendower mine, township of Bedford, county of Frontenac. W. G. Kidd collection.

438. Magnetite: Lot 31, concession 4, township of Snowdon, county of Haliburton. Analysis by Prof. Wm. Molin, New York, shows metalic iron 69.246, phosphorus .012, sulphur .038, titanic acid trace only. T. D. Ledyard, Toronto.

440. Magnetite: Lot 27, concession 4, township of Snowdon, county of Haliburton.

441, 442, 444. Magnetite: Belmont, county of Peterborough.

443, 446. Magnetite: Lot 25, concession 4, township of Snowdon, county of Haliburton. T. D. Leyard, Toronto.

447. Magnetite: Lot 31, concession 4, township of Snowdon, county of Haliburton. T. D. Leyard, Toronto.

447. Magnetite: Robertsville mine, township of Palmerston, county of Frontenac. W. G. Kidd collection.

478. Magnetite: Glendower mine, Janesville, county of Addington. W. G. Kidd collection.

483. Magnetite in calcite: Robertsville, township of Palmerston, county of Frontenac. W. G. Kidd collection.

579, 581. Magnetite (black Bessemer): Easterly 90 acres of each lots 3 and 4, concession 9, township of Palmerston, county of Frontenac. Property known as the Roberts mine, on Kingston & Pembroke Railway, about 60 miles from Kingston. Assay by J. H. Hulbert, Duluth, shows 67.3 of iron, with remarkable freedom from deleterious matter. When the mine was worked, consignments of ore were forwarded to Pittsburgh, Pa., and guaranteed 65 per cent. of iron, free from sulphur. The main shaft is upwards of 300 feet deep, and the ore appears to exist in immense quantities. F. W. Ferguson, Winnipeg, Man.

628. Hematite: Wallace mine, north shore of Lake Huron, Algoma district. Thomas Frood, Little Current P.O., Algoma.

749, 751. Hematite (gray): Lot 7 concession 10, township of Portland, county of Frontenac. Ontario Government collection.

750. Magnetite: Lot 7, concession 10, township of Portland, county of Frontenac. Ontario Government collection.

752. Bog ore: Lot 28, broken front concession, township of Gainsboro' county of Lincoln. Ontario Government collection.

763. Hematite (deep red and soft): Lot 7, concession 10, township of Portland, county of Frontenac; two miles from Kingston & Pembroke Railway. Drill shows a depth of 65 feet. This ore seems well adapted to the manufacture of pigments. Ontario Government collection.

787. Magnetite: Glendower mine, township of Bedford, county of Frontenac; Analysis gives 62 per cent. metallic iron. Good railway connection on Kingston & Pembroke Railway. Ontario Government collection.

788. Magnetite and Hematite: Lot 17, concession 10, township of Portland, county of Frontenac. Ontario Government collection.

813. Magnetite: Lot 25, concession 5, township of Darling, county of Lanark. As ' shows from 66 to 68.85 metallic iron, earthy matter 28.524, silica 2.60, phosphorus .026. Robert McGregor, Calabogie.

814. Magnetite: Lot 38, concession 1, township of Clarendon, county of Frontenac. Property has not been worked. Vein from 6 to 10 feet wide; thirteen miles from Lavant station, Kingston & Pembroke Railway. Ontario Government collection.

855. Magnetite (large sample): Atik-Okan location, Thunder Bay district. (See No. 101.) A. L. Russell, Port Arthur.

859. Hematite: Nipigon, Thunder Bay district. Wiley collection.

872. Hematite: Lot 13, concession 9, township of Marmora, county of Hastings.

897. Magnetite, Township of Glamoragan, county of Haliburton. Haliburton Mining Co., Toronto.

908. Magnetite: Coe Hill, township of Wollaston, county of Hastings, on the line of the Central Ontario Railway. The deposit is about 2,000 feet long and over 100 broad, forming a high ridge from which a large quantity of ore has been mined. The analysis gives nearly 70 per cent. of metallic iron, with a small proportion of sulphur; but no titanium. J. D. Riddell, Supt. C. O. R., Trenton.

1064-1076. Magnetite and Hematite: Cabinet specimens from various localities in eastern Ontario. J. L. Aunger collection.

1176. Magnetite: This specimen is part of a boulder found by Mr. Willliam Jenkins of Madoc, within a few miles of that town. It is so strongly magnetic as to constitute loadstone. James F. Boyle, Toronto.

1177. Magnetite: Lot 10, concession 6, (known as "The 49 acres"), township of Madoc, county of Hastings. Mrs. J. A. Wallbridge, Belleville.

1178. Hematite: Lot 12, Concession 5, township of Madoc, county of Hastings. Mrs J. A. Wallbridge. Belleville.

1333. Hematite (kidney): S. G. Fogg,, Rat Portage.

1423. Hematite: Lot 2, concession 6, township of Sheffield, county of Addington. This mine is three-fourths of a mile from Tamworth, on the Napanee & Kingston Railway. Leonard Wager, Tamworth.

1455, 1472. Magnetite : Gunflint lake, Thunder Bay district. "This is said to be one of the largest and best iron deposits in Ontario. Several analyses show not less than 64 per cent. metallic iron, with freedom from deleterious matters." W. C. Caldwell, Lanark.

1485,1486. Magnetite : Emily mine, and St. Charles mine, township of Tudor, county of Hastings. Henry Johnson, Coe Hill.

1487. Magnetite : Cameron mine, township of Chandos' county of Peterboro'. Henry Johnson, Coe Hill.

1490. Hematite : Arthur mine, township of Chandos, county of Peterboro' Henry Johnson, Coe Hill.

1492. Hematite : Township of Wollaston, county of Hastings. Henry Johnson, Coe Hill.

1561. Limonite : Echo Bay. Nelson Simmons, Echo Bay.

A COUNTRY TO BE PROUD OF.

The area of Canada being so great, its general physical features and its soil and climate naturally vary very much in character. The whole of the eastern part of Canada, from the Atlantic to the north west boundaries of Ontario, was formerly one vast forest, and is still in many places very heavily wooded, the production of timber in various forms being one of the principal industries in Ontario, Quebec, Nova Scotia and New Brunswick, and it is calculated that the timber wealth of the northern parts of Ontario and Quebec, in spite of the heavy inroads annually made, is sufficient to meet the demands for 100 years to come. Underlying this forest, when cleared, the soil has been found of great richness, and admirably adapted for agriculture of all kinds.

Between the northern boundary of Ontario and the Rocky Mountains lie the province of Manitoba and the southern part of the North-West Territories. This great tract of land is remarkable for its division along lines running generally north-west and south-east, into three distinct prairie steppes, or plateaux, as they are generally called. The first of these is known as the Red River Valley.

The northern part of the centre of the Dominion, extending from the Rocky Mountains to Hudson's Bay, is very extensively wooded, and has generally been considered for the most part unfit for settlement, and only useful as a preserve for fur-bearing animals. But during the session of Parliament of 1888 a committee of the Senate held an investigation into the capabilities of these regions, the result being that all previous ideas were upset. The area inquired into was 1,260,000 square miles, and of these it was estimated 860,000 square miles were fit for settlement, and about 400,000 square miles useless for cultivation ; 656,000 square miles were suitable for potatoes, 407,000 square miles for barley and 316,000 square miles for wheat. There is a river navigation of about 2,750 miles, 1,390 miles being suitable for stern-wheel steamers and 1,360 miles for light draught sea-going steamers. There are large auriferous deposits, as well as silver, iron, graphite, ochre, brick and pottery clay, mica, gypsum, lime and sandstone, "while the petroleum area is so extensive as to justify the belief that eventually it will supply the larger part of this continent." Furs are at present the chief commercial products of this region, which is the last great fur preserve of the world, and in view of the great danger of the extinction of animals whose furs become fashionable, it was suggested by the committee that fur districts should be leased by the Government, and a limitation placed on the catch of certain kinds of furs. The lakes and rivers abound in fish, especially whitefish and lake trout.

Greater railway construction is wanted to create demand in the poorer or more sparsely settled districts. Our wants in Ontario can hardly be less than those of the average United States citizen ; the probability is that they are higher, since there are few States of the American Union as wealthy as this Province, or in which the requirements of industrial and commercial life are as great.

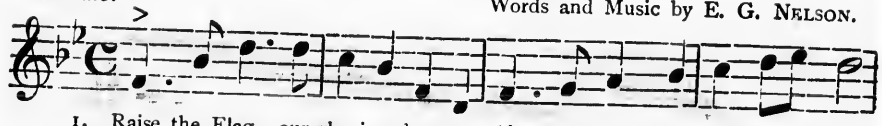
ANXIOUSLY AWAITING THE "LOCAL."

Oliver has more than he can manage, and good Mr. Tait, vainly struggling with the Young Man's Votes Valise, is not within sight.

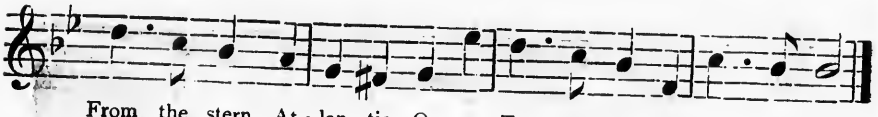
RAISE THE FLAG!

Marcato.

Words and Music by E. G. NELSON.



1. Raise the Flag, our glo-rious ban-ner, O'er this fair Ca - na - dian land,



From the stern At - lan - tic O - cean To the far Pa - ci - fic strand.

2

Raise the Flag o'er hill and valley,
Let it wave from sea to sea;
Flag of Canada and Britain,
Flag of Right and Liberty!

CHO.—

3

Raise the Flag, and, with the banner,
Shouts of triumph let us raise;
Sons of Canada will guard it,
And her daughters sing its praise.

CHO.—

4

Raise the Flag of the Dominion,
That the world may understand
This will be our ensign ever,
In our broad Canadian land.

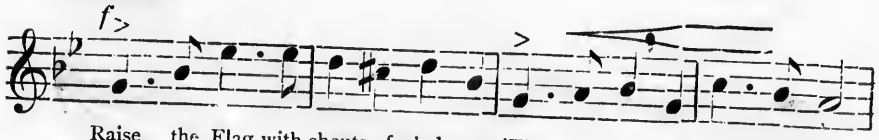
CHO.—

5

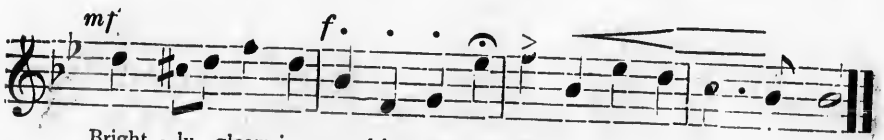
Raise the Flag! Who dare assail it,
Guarded by the Empire's might?
Raise the Flag of our Dominion,—
Stand for Country, God and Right!

CHO.—

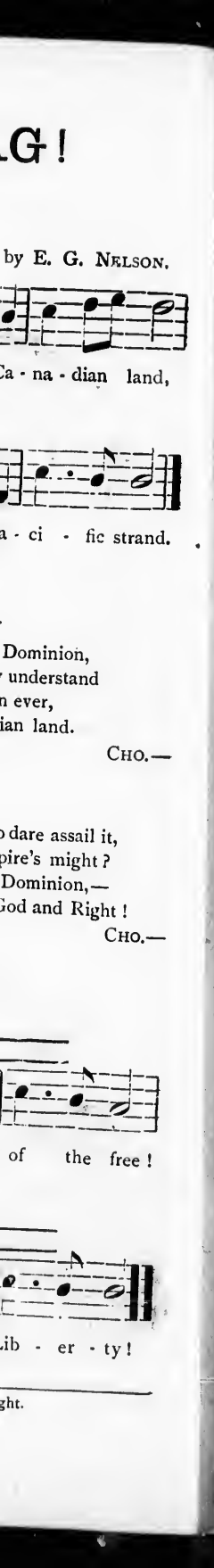
CHORUS.



Raise the Flag with shouts of glad-ness, 'Tis the ban - ner of the free!



Bright - ly gleam-ing, proud-ly stream-ing, 'Tis the Flag of Lib - er - ty!



TREATING IRON ORES AND METALLIC IRON.

It has been shown that we have iron ores in many localities, east, west and north. We have bog ores, red and brown hematite ores, magnetic ores and carbonate ores. But we have not one working mine in the Province, nor one blast furnace for the smelting of iron ores. The United States is making and using about 9,000,000 gross tons a year, being at the rate of one-seventh of a ton, or 320 lb., per head of the country's population. What the consumption is in Canada cannot be so definitely ascertained. A small portion of the whole is produced in the country, the quantity of which is known. The great bulk is imported, chiefly from Great Britain and the United States; part of it as pig iron, but much the larger portion as manufactured goods, or as iron and steel in various stages of manufacture. The Trade tables of the Dominion classify the imports by articles and values, and to a certain extent by weight also. In so far as the latter classification is given we have a basis upon which to estimate the total quantity of our iron and steel imports, and for the purpose of making such an estimate the following comparative table of quantities and values has been compiled from the trade reports of the Dominion for the fiscal years 1881-2 and 1891-2:

IMPORTS OF IRON AND STEEL.

Articles.	1881-2.		1891-2.	
	cwt.		cwt.	
Band and hoop iron	73,860	$ 129,931	92.014	$ 143,853
Bars, rolled, etc.	891,494	1,328,610	133,353	231,468
Plates and sheets	271,805	714,187	442,038	1,067,027
Carwheels and forgings	27,326	74,492	25,541	105,036
Chain cables	31,084	79,103	23,803	63,263
Slabs, blooms, etc.	203,888	222,056	64,397	56,186
Bridge and structural iron	49,664	212,527	6,018	27,363
Nails and spikes	11,382	51,217	9,871	40,276
Scrap iron and steel	26,545	20,406	740,687	507,018
Pig iron	1,268,620	1,023,012	1,378,360	886,485
Railway [illegible] rails, fish plates, etc)	117,667	184,459	126,320	189,199
Rolled [illegible]ms, etc	41,921	83,852	153,510	220,287
Nail and spike rods	16,661	24,806	16,795	36,090
Wire	121,328	455,464	72,149	219,643
Locomotive tires	8,943	45,180	27,609	80,294
Iron and steel for ships	8,978	45,819	36,703	70,663
Steel ingots, bars, etc.	328,382	895,857	159,994	421,530
Steel rails	2,279,959	3,531,330	1,654,935	1,738,661
Steel for manufacturers	1,002	5,074	45,683	180,901
Totals	$5,780,509	9,127,382	5,209,780	$6,291,243

The average value per net ton in the first of those years would, therefore, be $31.58, and in the second $24.15. In 1881-2 the total value of our imports of iron and steel was $17,075,588, and in 1891-2 it wos $12,641,442.

THE UTILIZATION OF PEAT.

The interest which was noted in the Report of the Bureau for 1891 as having arisen on the question of a possible supply of cheap and efficient peat fuel for Ontario, has been maintained throughout the past year. In the absence of coal the circumstances of the Province are such as to require that all available informa-

tion should be obtained on the subject, and all the light derivable from the experience of other countries cast upon it, in the hope that such a supply may be forthcoming. Prospects are held out that a manufactured peat fuel will be placed on the market during the present year at a price which will enable it to compete successfully with coal, and it may be that a solution of the problem which has been a perplexing one to experimenters is at hand. The fact given below as to the use of peat at the present moment in various countries of continental Europe encourage the hope that some method may be adopted here by means of which our extensive peat bogs may be made to serve as useful a purpose as those of Germany, Holland and Sweden. The difference between the cost of labor in Germany and Sweden and Ontario, though considerable, is not, it would seem, so great as to make it impossible to produce an artice of similar quality here at a comparatively small advance in price. In Sweden the cost of producing well-made turf for fuel is placed at $1.04 to $1.30 per ton according to price of labor, this being the principal item of cost. Making the necessary additions for other charges and for the higher price of labor in Ontario, there would appear to be still considerable margin left for profitable production at a selling price much below that of coal. In Germany the average rate of wages paid to men at the Government peat works on the Carolinenhorst moor is said to be $1 to $1.12 per day—a rate inferior, but not markedly so, to wages paid for corresponding work in Ontario. Yet the peat produced there is sold in competition with the plentiful supplies of coal raised from the coal pits of Germany itself, while in Ontario such competition would be with coal burdened with freight charges for a carriage of hundreds of miles, besides the customs duty. National habits and customs may count for something, but adherence to old established ways will hardly of itself explain the vigorous survival of the peat industry in Europe, and when the thrifty Dutch, Germans and Swedes find it to their advantage to burn peat instead of wood or coal, it is worth while for the people of Ontario to consider whether or not they cannot replace some of the imported coal used in their stoves and furnaces with a product of their own neglected peat bogs.

At the meeting of the General Mining Association of Quebec held at Montreal on Friday, 7th April, 1893, the subject of peat was under discussion, two papers being read, one by Dr. R. W. Ellis, LL.D., of the Geological Survey of Canada, and the other by Thomas W. Gibson of the Ontario Mines Bureau, both of which are here reproduced. Dr. Ellis' interesting paper deals with peat and its products, while Mr. Gibson's, it will be observed, treats of peat as a fuel only.

THE PEAT INDUSTRY IN CANADA.

By. R. W. Ellis, LL.D., of the Geological Survey of Canada, Ottawa.

The importance of the peat deposits which are found in all the Provinces of Canada has long been recognized, and a number of attempts have been made from time to time to turn them to profitable account. Some of these have for a brief period given fairly satisfactory results, but all have owing to various causes gradually been abandoned. At present however there appears to be a growing interest in the question of their utilization, and it is to be hoped that profiting by the mistakes and the experience of the pioneers in the industry some more practical scheme than has yet been in operation may be devised, so that the manufacture of peat either for fuel or other purposes may be placed on a paying basis.

FEATURES OF A PEAT INDUSTRY.

The value of the peat deposits must however after all be merely a comparative one. If it can be conclusively shown that a peat fuel can be produced possessing let us say 100 heat units, and placed in the markets of Ontario and Quebec at a

well defined less rate as regards cost than 100 heat units of coal, taking the coals of Nova Scotia and the United States in ordinary use as the standard, then it should be apparent that our peat deposits are worthy of attention as an important factor among the manufacturing or power producing agents of the day. To do this however we must first of all consider several very important features of the industry, such as the extent of our peat deposits, the calorific power of well prepared peat fuel, the convenience of handling and the advantages it possesses, if any, over the fuel at present at our disposal, and in addition to this, and this is an especially important item, the cost of its manufacture.

In the utilization of our peat bogs we must bear in mind the fact that other phases of the question possess an equal if not even a greater present economic value than that of fuel supply. For instance the question of the application of peat to sanitary purposes for the reception and economic disposition of the sewage of our large cities is now being largely considered, and it has been ascertained that in this respect no substance yet known possesses presumably greater or more valuable properties than the produce of our peat bogs, so long regarded as practically valueless. Further, a comparatively new industry has come into prominence in connection with these deposits, which in Holland and elsewhere has already reached a very extensive development, and which should also permit handsome returns on capital in this country, viz., the manufacture of moss litter. This material from its great absorbent properties has been found to surpass all other substances in the utilization of stable waste, and for promoting the comfort and cleanliness and as a consequence the health of all animals there kept. So great is the importance of this industry, as yet comparatively unknown in Canada, that the peat bogs of Holland are now supplying the markets of London and New York with this prepared moss litter, with a demand apparently unlimited and at a price quoted in the London market of 21 to 26 shillings per ton according to quality, which should furnish highly remunerative results.

While the peat deposits of Quebec and Ontario are known to be very extensive, the greater part of these have hitherto remained untried. Among the best known may be mentioned for the latter Province the vicinity of the Caledonia Springs, lying to the south of the Ottawa in the township of Caledonia, county of Prescott, and certain bogs in Clarence, Cumberland and Gloucester, the latter in the county of Carleton. Of these the nearest the city of Ottawa is the Mer Bleue, which consists of two long peat bogs, separated by a narrow ridge of higher land and comprising in the two an area of not far from 5,000 acres. These bogs were sounded by Mr. James Richardson of the Geological Survey staff and shown to have a depth in places of over twenty feet, the depth elsewhere ranging from five to fifteen feet. Three other large areas from 1,000 to 3,000 acres each occur in the townships of Nepean and Gouldburn adjoining, while other extensive bogs occur in Huntley and Westmeath. The depth of peat in these deposits varies from eight to over fifteen feet. Further south in the direction of Cornwall bogs are found in Osnabruck, Roxburgh and Finch, so that it is easily seen that a practically inexhaustible supply of material is found in the almost immediate vicinity of the Ottawa and St. Lawrence and in close proximity to the leading manufacturing centres. In western Ontario also peat bogs have been noted at many points, as in the vicinity of the Welland canal, and near lake St. Clair, as also in the counties of Simcoe and York, and farther west along the line of the Canadian Pacific Railway north of lake Superior, as well as on the route between that lake and Winnipeg.

ORIGIN OF PEAT BOGS.

Peat bogs are all of vegetable growth, consisting for the most part of the decomposed remains of plants and mosses, chiefly of the genus sphagnum, which have apparently filled up the basins of shallow lakes. The deposits are frequently

underlaid by a layer of shell marl, which has constituted the original lake bottom. The peat bog frequently carries a growth of trees, often of tamarac in a stunted condition, with various heath plants, which by the decay both of their stems and rootlets help to swell the organic constituents of the mass. In bogs of a good depth the peat may be divided into three classess, viz: (1) the green living and growing surface, (2) the intermediate zone in which the remains of the plants are well defined, but which is capable of furnishing an excellent peat for certain purposes, and (3) the lower and fully digested material in which traces of organic life are comparatively rare, which possesses a rich black or brown color, and when free from inorganic matter furnishes a fuel of very excellent quality.

In character also peat varies somewhat owing to the nature of the underlying rocks. Thus moss peats are generally found on rocks nearly free from lime, such as granite or other strata rich in silica, while grassy or sedgy peats are more frequently found in calcareous districts. In the ripest or most thoroughly formed peat the decomposition of the organic matter has reached the last stage, the result being a dark brown or black homogeneous mass, comparatively dense and heavy. This when moist is firm, sticky and coherent like clay, and can be readily cut and moulded into any shape, and when dried it is hard, having on cut or burnished surfaces a lustre like pitch or wax.

FOSSIL FUELS.

A brief reference should be made to the fossil fuels displayed in the collection, though these are comparatively unimportant. They include peat and lignite. The last is a woody brown coal like some mined in Europe. If large seams of it are proved to exist in the Moose river region the fuel question for that part of the Province is solved, but as it is found only in superficial deposits widespread beds are scarcely to be looked for. Our supply of petroleum is confined chiefly to the county of Lambton, though it is also found in the county of Kent.

A MUSEUM OF MINERALS.

I have counted 70 distinct species of minerals represented in the excellent collection sent to Chicago. In my reading I have found about 150 minerals referred to from Ontario localities, some 70 or 80 of which are not in the collection. Many of these have been found only in minute quantities, and none are of any economic importance, so that the collection represents very fairly and fully the mineral resources of the Province, and will undoubtedly do much good by calling the attention of the world to our undeveloped wealth.

The Chicago exhibit should be placed in some convenient building in Toronto as the foundation of a Provincial collection worthy of such a territory as ours. To it should be added from time to time new specimens, till all the Ontario minerals are well represented in it.

A good set of foreign minerals should be arranged in the same museum for comparison, and the whole should be open at suitable times to the public so that our own people may learn what a heritage they have and be willing to spend money in developing Canadian mines instead of Mexican ones.

An appendix has been prepared giving a list of all the species of minerals referred to in the literature of the subject as far as examined in the preparation of this paper. A few doubtful ones have an interrogation point after them, and a few others are rather synonyms than distinct species. The authorities referred to in preparing the list have been chiefly the Geological Survey reports, especially Dr. Hoffman's list, and Prof. Chapman's works.

THE POLITICAL HOUSE-CLEANING SEASON.

MRS. PATRON: I think you'd better get ready to get out, sir. This House-cleaning has been put off too long as it is.

LIST OF MINERALS FOUND IN ONTARIO.

Actinolite.
Agate, Michipicoten, Thunder Bay.
Albite.
Allanite, Hollow lake, S. Muskoka river.
Almandite.
Amazon stone, Sebastopol.
Amethyst, lake Superior.
Amphibole = Hornblende.
Analcite, north shore lake Superior.
Animikite, Silver Islet.
Anthraxolite, lake Superior.
Apatite.
Apophyllite.
Argentite.
Aragonite, lake Superior.
Arsenopyrite, Marmora.
Asbestos (also mountain cork and leather) a variety of hornblende, Beaver mine, etc.
Asphaltum, Lambton Co.
Augite.
Aventurine.
Axinite, boulder, Prescott Co.
Azurite, Batchawana bay and Prince's mine.
Barite, McKellar island.
Beryl, Rainy lake.
Biotite.
Bismuth, native, Hastings Co., etc.
Bismuthinite.
Bismutite.
Blueite.
Bog iron ore.
Bornite, lake Huron.
Bournonite, Marmora and Darling.
Cacoxenite, near Brockville.
Calcite, Lanark, etc.
Cassiterite, Vermilion mine.
Celestite, Kingston, Credit Valley.
Chalcedony, lake Superior.
Chalcopyrite.
Chert.
Chlorite.
Chondrodite, Leeds Co.
Chrysocolla, lake Superior.
Chrysolite.
Copper, native, Mamainse.
Coracite, Mamainse (pitchblende partly altered to gummite).
Corundum, light blue and rose red, Burgess.
Cuprite.
Cyanite.
Datolite, Lacy mine, Loughboro.
Diallage.
Diopside.
Dog-tooth spar.
Dolomite, Niagara.
Domeykite, Michipicoten island.
Eleolite, drift.
Epidote, Mamainse.
Epsomite, Marmora.
Erythrite, Prince's mine, lake Superior.
Essonite?
Fluorite, lake Superior.
Folgerite.
Galena.
Garnet.
Genthite, Michipicoten.
Gold, native.
Graphite.
Gypsum.
Halite.
Hematite.
Hornblende.
Humboldtine, Kettle Point on black shales.
Huntilite?
Huronite (altered anorthite) near Sudbury.
Hypersthene.
Iceland spar, St. Ignace Island, lake Superior.
Ilmenite?
Ilvate? Ottawa.
Iron ocher, Grey Co., Simcoe Co., etc.
Isarite, part of black magnetic sands.
Jasper.
Kalinite, near Kaministiquia.
Koalinite.
Labradorite, lake Huron.
Laumontite, north shore of lake Superior.
Lead, native, Kaministiquia.
Lepidomelane, Marmora.
Lignite.
Limonite.
Macfarlanite? Silver Islet.
Magnetite.
Malachite.
Malacolite or Diopside.
Marcasite.
Martite, Bass lake.
Melanite.
Melanterite, lake Superior and Hastings.

Meneghinite, Marble lake, Frontenac.
Meteoric iron, Madoc.
Microclin.
Millerite?
Molybdenite, Ross.
Molybdite, Ross.
Morenosite, Wallace mine, lake Huron.
Muscovite.
Niccolite, Michipicoten and Sudbury.
Oligoclase, Lanark.
Orthoclase.
Pargasite, Renfrew Co.
Pearl spar=Dolomite, in cavities and geodes, Niagara formation.
Pectolite, Thunder bay.
Peristerite or albite, Bathurst.
Perthite, North Burgess.
Petalite, Toronto (boulder).
Petroleum.
Phlogopite.
Pitchstone, Michipicoten.
Polydymite, Sudbury.
Prehnite, lake Superior.
Pyrallolite, Ramsay and Rawdon.
Pyrite.
Pyrolusite.
Pyroxene.
Pyrrhotite.
Quartz.
Raphilite.
Rhodochrosite.
Rutile, Madoc.
Sahlite?
Scapolite.
Selenite.
Serpentine.
Siderite, lake Superior.
Silver, native.
Smaltite, McKim.
Soapstone.
Sodalite.
Sperrylite.
Sphalerite.
Spinel.
Spodumene, boulder near Perth.
Stilbnite, Marmora, etc.
Stilbite?
Sulphur, native, Clinton.
Sylvanite, lake Superior.
Talc.
Tetrahedrite?
Thompsonite (zeolite, Chap.) Mamainse.
Titanite.
Tourmaline.
Tremolite.
Uraconite, Madoc and Snowdon on iron ores.
Vesuvianite.
Wernerite=Scapolite.
Whartonite.
Wilsonite.
Witherite, Twin Cities mine, lake Superior.
Wolframite, gneiss boulder, lake Couchiching.
Wollastonite, North Burgess, etc.
Zircon.
Zonochlorite, Nipigon Bay.

THE IRON INDUSTRY IN PENNSYLVANIA.

Reading has a population of 65,000. It is situated on the Schuylkill river, off all the chief lines of traffic in the state; yet it is a hive of industry, and for more than thirty years blast furnaces have been producing pig iron in the town and the country tributary to it. In a paper read at the meeting of the Institute by the President of the Board of Trade the following statistics were given of the value of iron manufactures in the city for the year ending September 29, 1892;

Stoves	$659,000
Boilers and flues	323,000
Hardware, locks and butts	1,650,000
Pig iron, wrought iron, pipe and machinery	8,400,000
Iron beams, bridge work and steel	4,000,000
Bolts, nuts, rivets, etc.	1,000,000
Total	$16,032,000

These industries give employment to 6,850 people ; but they do not embrace all the manufactures of Reading. Other lines of goods produced during the same year, with their values, are shown in the following table :

Hosiery	$550,000
Boots and shoes	150,000
Silk and cotton goods	1,725,000
Rope and cordage	600,000
Fire-brick, terra cotta and glass	320,000
Wool and fur hats	3,000,000
Cigars	3,150,000
Total	$9,495,000

More than half of the whole population of the city, I was informed, is supported by its manufactures.

South of Reading about twenty miles, on the line of the Reading Railway, and also upon the Schuylkill river, is the town of Pottstown. It has a population of 15,000, and it is said that almost every workingman in the place is employed either in making or manufacturing iron. There are blast furnaces, bridge works, boiler works, stove works, mill iron works, cut nail works, pipe iron works and steel rail and plate works. The last named establishment was started about thirty years ago in the interest of the Reading Railway Company, and after changing hands two or three times it is now controlled by three men organized as the Pottstown Iron Co., with a capital of $1,000,000. The plant consists of a blast furnace which smelts Lake Champlain and other ores high in phosphorus and silicon, producing 800 tons of pig iron weekly ; three basic Bessemer converters, the largest of their class in the United States ; a mill for making fire-brick to line the converters ; rolling mills for rolling boiler and other plate ; nail mills, etc. Two thousand men are employed by this company alone, whose yearly earnings foot up $1,000,000, or one seventh as much as all the wages paid by all the iron industries of Ontario in 1880, and this in one town of 15,000 inhabitants.

There are several other active manufacturing towns in the Schuylkill valley, above and below Reading, one of which is Birdstown, made famous recently by the construction in one of its iron-working establishments of the wire gun—which members of the Institute had the privilege of seeing in a partly finished state.

Less than fifty miles eastward of the Schuylkill is the Lehigh river, a tributary of the Delaware. From the gap at Mauch Chunk, where the Lehigh breaks through the Blue mountains, down to its mouth, this river is almost one continuous line of blast furnaces and iron works. Chief among these are the works of the Bethlehem Iron Company, with eight blast furnaces for smelting iron ore (Cuba red hematite, Elba specular and New Jersey magnetic—the latter treated by the Edison magnetic separators), a steel plant with four Bessemer and four Siemens open-hearth furnaces whose aggregate steel-making capacity is 915 tons per day, steel rail mill, and forging and machine shops for the manufacture of guns and nickel steel armor plate for the United States navy. These works give employment to over 4,000 men, and the ground occupied by them extends a mile and a quarter along the Lehigh river by a quarter of a mile in width.

But the great centre of the iron industry of Pennsylvania as well as of the United States is in the western part of the state, in Allegheny county, whereof Pittsburgh is the chief town. In 1874 there were eleven blast furnaces in this country which produced in that year 143,660 net tons of pig iron, an average per furnace of 13,060 tons ; in 1891 the number had increased to twenty-six and the production to 1,635,531 tons, an average per furnace of 63,289 tons. In 1874 there were also forty-two mills and steel works in the county whose total make of crucible, Bessemer and other steels was 23,915 net tons, an average of 570 tons ; in 1891 the number of mills and works had grown to sixty-three and the production to 1,542,921 tons, an average of 24,490 tons.

Further and more imposing evidence of the value of the iron industries of this great centre is found in the assessment rolls of the city of Pittsburgh. For the purpose of levying a business tax, every person or firm engaged in mercantile pursuits in the city is obliged to make each year a sworn return of the gross amount of business done, and the business tax is levied thereon. The following list shows the amount of such business in iron and steel for the year ending 31st March, 1893:

Atwood & McCaffrey, foundry,	$308,489
A. M. Byers & Co., iron,	875,332
U. Baird, Machinery Co., machinery,	130,000
H. L. Childs & Co., mill supplies,	215,000
Crescent Steel Co., steel,	420,000
The Harmes Machine Department, machinery,	100,000
The Shook Anderson Machine Co.,	120,000
Singer, Nimick & Co., iron,	1,063,339
S. Severance, spikes,	179,000
Smoky City Boiler Works, boilers,	100,000
The Birmingham Iron and Steel Co., iron and steel,	100,000
Charles A. Turner, mill supplies,	125,000
W. G. Price & Co., plumbers,	225,000
Pittsburgh Supply Co., oil well supplies,	525,000
Riter & Conley, boilers, etc.,	1,016,871
Joseph Woodwell & Co., hardware,	208,701
Neal Bros., iron and steel,	100,000
Oil Well Supply Co.,	300,000
McGinnis, Smith & Co., heating apparatus,	100,000
Apollo Iron and Steel Co., iron and steel,	100,000
Bovaird, Seyfang & Co., oil well supplies,	100,000
Pennsylvania Tube Works, iron	1,982,040
Robinson Rea Machine Co., machinery.	600,000
The Kelley & Jones Co., steam fitters,	250,000
Bradley & Co., stoves,	100,000
Clinton Iron & Steel Co., iron and steel,	550,000
Frick & Lindsay Co., mill supplies,	100,000
National Tube Works, iron,	200,000
A. Garrison, Foundry Co., foundry,	515,765
Jones & Laughlins, iron and steel,	5,500,000
Wolff, Lane & Co., hardware,	278,486
Bindley Hardware Co., hardware,	600,000
Demmier Bros., hardware,	335,000
Carnegie Steel Co., (Ltd.),	9,582,328
Benny Bros., machinery,	150,000
Babcock & Wilcox, boilers,	200,000
Dilworth, Porter & Co., railway supplies,	1,500,000
Lyle & McCance, hardware,	127,000
Steel and Iron Implement Co.,	100,000
H. K. Porter & Co., locomotives,	437,620
Standard Mnfg Co., plumbers' supplies,	219,059
W. A. Giles, engines,	100,000
Nease, McLain & McGinnis, hardware,	120,000
Brown & Co., steel,	800,000
McWhinney & Co., hardware,	200,000
H. Lloyd's Sons & Co., iron,	411,912
Mackintosh, Hemphill & Co., founders,	890,870
Joseph C. Lindsay & Co., hardware,	315,000
Logan, Gregg & Co., hardware,	600,000
James Rees & Son, engines,	161,046

Bissell & Co., stoves,	$176,000
Singer Sewing Machine Co.,	100,200
Standard Sewing Machine Co.,	172,000
I. N. Scott & Co., agricultural implements,	200,000
Scoble & Parker, agricultural implements,	205,100
A. Speer & Sons, plows,	184,328
John Hall jr. & Co., agricultural implements,	130,000
Consolidated Steel Co., wire,	100,000
Standard Underground Cable Co,	621,901
Zug & Co., iron,	795,700
Schoenbergor & Co., iron,	2,613,000
Howe, Brown & Co., steel,	100,000
S. Jarvis Adams & Co., foundry,	180,000
Jarecki Manufacturing Co., pipe,	125,000
Hainsworth Steel Co.,	1,000,000
Cold Rolled Steel Co., steel,	250,000
Hubbard & Co., shovels,	151,714
Hydraulic Machine Co., machines,	100,000
Carbon Steel Co., steel,	400,000
Wm. Clark's Sons & Co., iron,	1,000,000
Iron City Tool Works, tools,	158,136
McCullough, Dalzell & Co., crucibles,	200,000
Pittsburg Malleable Iron Co., iron,	154,869
Pittsburg Bridge Works, iron bridges,	271,660
Keystone Rolling Mill Co., iron and steel,	848,550
Linden Steel Co, steel,	698,816
Moorhead, McLean Co., iron and steel,	914,507
A. French, Spring Co., springs,	1,180,000
Westinghouse Machine Co., machinists,	450,000
McConway, Torley & Co., iron,	1,477,000
Schiffler Bridge Co., bridges,	500,000
Seaman, Sleeth & Black, rolls,	435,000
Marshall Foundry Co., founders,	521,593
R. Munroe & Son, boilers,	250,000
L. M. Morris, foundry,	216,068
Park Bro. & Co., steel,	2,048,546
Pittsburg Steel Casting Co., steel,	204,072
Scaife Foundry and Machine Co., foundry,	114,738
Totten, Hogg & Co., foundry,	158,300
Oliver & Roberts Wire Co., wire,	1,800,000
Oliver Iron and Steel Co., iron and steel,	2,000,000
Koehler & Strong, scrap,	165,000
Morris & Bailey, steel,	138,000
Phillips, Nimick & Co., iron,	708,975
M. Lanz & Son, nuts, bolts and bricks,	125,000
Lewis Foundry and Machine Co.,	271,677
The Klein Logan Co., tools,	100,000
C. J. Reiling, iron railings,	100,000
Marland, Neely & Co., nuts and bolts,	108,698
Phillips Mining Supply Co.,	100,000
Republic Iron Works,	600,000
Union Foundry and Machine Co.,	150,000

Making a total of $59,115,709.

$176,000
100,200
172,000
200,000
205,100
184,328
150,000
100,000
621,901
795,700
2,613,000
100,000
180,000
125,000
1,000,000
250,000
151,714
100,000
400,000
1,000,000
158,136
200,000
154,869
271,660
848,550
698,816
914,507
1,180,600
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521,593
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2,048,546
204,072
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165,000
138,000
708,975
125,000
271,677
100,000
100,000
108,698
100,000
600,000
150,000

JOHN BULL MUST GO.

MINISTER OF EDUCATION ROSS.—"Now get a move on you John Bull, and take your history with you. I have no room for you in the school."

POPULATION OF THE UNITED

[From the reports of the

States and Territories.	1790.		1800.		1810.		1820.		1830.	
	Rank in Populat'n.	Populat'n.	Rank in Populat'n.	Populat'n.	Rank in Populat'n.	Populat'n.	Rank in Populat'n.	Populat'n.	Rank in Populat'n.	Populat'n.
Alabama							19	127,901	15	309,527
Arizona										
Arkansas							26	14,255	28	30,388
California										
Colorado										
*Connecticut	8	237,946	8	251,002	9	261,942	14	275,148	16	297,675
Dakota										
*Delaware	16	59,096	17	64,273	19	72,674	22	72,749	24	76,748
Dt. Columbia			19	14,093	22	24,023	25	33,039	25	39,834
Florida									26	34,730
Georgia	13	82,548	12	162,686	11	252,433	11	340,985	10	516,823
Idaho										
Illinois					24	12,282	24	55,162	20	157,445
*Indiana			21	5,641	21	24,520	18	147,178	13	343,031
Iowa										
Kansas										
Kentucky	14	73,677	9	220,955	7	406,511	6	564,135	6	687,917
Louisiana					18	76,556	17	152,923	19	215,739
*Maine	11	96,540	14	151,119	14	228,705	12	298,269	12	399,455
*Maryland	6	319,728	7	341,548	8	380,546	10	407,350	11	447,040
*Massachu'ts	4	378,787	5	422,845	5	72,040	7	523,159	8	610,408
*Michigan					25	4,762	27	8,765	27	31,639
Minnesota										
Mississippi			20	8,850	20	40,352	21	75,448	22	136,621
Missouri					23	20,845	23	66,557	21	140,455
Montana										
Nebraska										
Nevada										
*N' Hampshire	10	141,885	11	183,858	16	214,460	15	244,022	18	269,328
*New Jersey	9	184,139	10	211,149	12	245,562	13	277,426	14	320,823
New Mexico										
*New York	5	340,120	3	589,051	2	953,049	1	1,372,111	1	1,918,608
N. Carolina	3	393,751	4	478,103	4	555,500	4	638,829	5	737,987
*Ohio			18	45,365	13	280,760	5	581,295	4	937,903
Oklahoma										
Oregon										
*Pennsylvania	2	434,373	2	602,365	3	810,091	3	1,047,507	2	1,348,233
*Rhode Island	15	68,825	16	69,122	17	76,931	20	83,045	23	97,199
S. Carolina	7	249,073	6	345,591	6	415,115	8	502,741	9	581,185
Tennessee	17	35,691	15	105,602	10	261,727	9	422,771	7	681,904
Texas										
Utah										
*Vermont	12	85,425	13	154,465	15	217,895	16	235,966	17	180,652
Virginia	1	747,610	1	880,200	1	974,600	2	1,065,116	3	1,211,405
Washington										
W. Virginia										
Wisconsin										
Wyoming										
The U. S.		3,929,214		5,308,483		7,239,881		9,633,822		*d*12,866,020

NOTE.—According to the census the population of Alaska for 1880 was 33,426 and for 1890, 32,052, of which latter 4,298 are white, 23,531 Indian, 2,288 Mongolian, 1,823 mixed blood, and 112 all other persons.

According to the census of 1890 the population of Indian Territory was as follows: Five-tribe Indians (Cherokees, Creeks, Seminoles, Chocktaws, and Chickasaws), 45,494; other Indians, 4,561; total Indians, 50,055. Colored and five-tribes colored citizen claimants, 18,636; Chinese, 13; whites, including some Indian citizen claimants, 109,384; unknown, 9; Quapaw Indian Agency, 1,224; total, 179,321.

The total population returned by the Indian census enumerators was 325,464. This included 189,349 reservation Indians and other Indians not taxed; 109,384 whites and 18,636 colored persons, 13 Chinese, and 9 unknown in Indian Territory, and 8,073 whites, employees and others, on reservations and at posts.

STATES AT EACH CENSUS, FROM 1790 TO 1890.

Superintendents of the Census.]

1840.		1850.		1860.		1870.		1880.		1890.	
Rank in Popular'n.	Population	Rank in Popular'n.	Popular'n.	Rank in Popular'n.	Popular'n.	Rank in Popular'n.	Popular'n.	Rank in Popular'n.	Popular'n.	Rank in Popular'n.	Popular'n.
12	590,756	12	771,623	13	964,201	16	996,992	17	1,262,505	17	1,513,017
						46	9,658	44	40,440	48	59,620
25	97,574	26	209,897	25	435,450	26	484,471	25	802,525	24	1,128,179
		29	92,597	26	379,994	24	560,247	24	864,694	22	1,208,130
				38	34,277	41	39,864	35	194,327	31	412,198
20	309,978	21	370,792	24	460,147	25	537,454	28	622,700	29	746,258
				42	4,837	45	14,181	40	135,177	41	*a*182,719
										37	*b*328,808
26	78,085	30	91,532	32	112,216	35	125,015	38	146,608	42	168,493
28	43,712	33	51,687	35	75,080	34	131,700	36	177,624	39	230,392
27	54,477	31	87,445	31	140,424	33	187,748	34	269,493	32	391,422
9	691,392	9	906,185	11	1,057,286	12	1,184,109	13	1,542,180	12	1,837,353
						44	14,999	46	32,610	45	84,385
14	476,183	11	851,470	4	1,711,951	4	2,539,891	4	3,077,871	3	3,826,351
10	685,866	7	988,416	6	1,350,428	6	1,680,537	6	1,978,301	8	2,192,404
29	43,112	27	192,214	20	674,913	11	1,194,020	10	1,624,615	10	1,911,896
				33	107,206	29	364,399	20	996,096	19	1,427,096
6	773,828	8	982,405	9	1,155,684	8	1,321,011	8	1,648,690	11	1,858,635
19	352,411	18	517,762	17	708,002	21	726,915	22	939,946	25	1,118,587
13	501,793	16	583,169	22	628,270	23	626,915	27	648,936	30	661,086
15	470,019	17	583,034	19	687,049	20	780,894	23	934,943	27	1,042,390
8	737,699	6	994,514	7	1,231,066	7	1,457,351	7	1,783,085	6	2,238,943
23	212,267	20	397,654	16	749,113	13	1,184,069	9	1,636,937	9	2,093,889
		36	6,077	29	172,023	28	439,706	26	780,773	20	1,301,826
17	365,651	15	606,526	14	791,305	18	827,922	18	1,131,597	21	1,289,600
16	383,702	13	682,044	8	1,182,012	5	1,721,295	5	2,168,380	5	2,679,184
						43	20,595	45	39,159	44	132,159
				39	28,841	36	122,993	30	452,402	26	1,058,910
				41	6,857	40	42,491	43	62,266	49	45,761
22	284,574	22	317,976	27	336,073	31	318,300	31	346,991	33	276,530
18	373,306	19	489,555	21	672,035	17	906,096	19	1,131,116	18	1,444,533
		32	61,547	34	93,516	37	91,874	41	119,565	43	153,593
1	2,428,921	1	3,097,394	1	3,880,735	1	4,382,759	1	5,082,871	1	5,997,853
7	753,419	10	869,039	12	992,622	14	1,071,361	15	1,399,750	16	1,617,947
3	1,519,467	3	1,980,329	3	2,339,511	3	2,665,260	3	3,198,062	4	3,672,316
										46	*c*61,834
		34	13,294	36	52,465	38	90,923	37	174,768	38	313,767
2	1,724,033	2	2,311,786	2	2,906,215	2	3,521,951	2	4,282,891	2	5,258,014
24	108,830	28	147,545	29	174,620	32	217,353	33	276,531	35	345,506
11	594,398	14	668,507	18	703,708	22	705,606	21	995,577	23	1,151,149
5	829,210	5	1,002,717	10	1,109,801	9	1,258,520	12	1,542,359	13	1,767,518
		25	212,592	23	604,215	19	818,579	11	1,591,749	7	2,235,523
		35	11,380	37	40,273	39	86,786	39	143,963	40	207,905
21	291,948	23	314,120	28	315,098	30	330,551	32	332,286	36	332,422
4	1,239,797	4	1,421,661	5	1,596,318	10	1,225,163	14	1,512,565	15	1,655,980
				40	11,594	42	23,955	42	75,116	34	349,390
						27	442,014	29	618,457	28	762,794
30	30,945	24	305,391	15	775,881	15	1,054,670	16	1,315,497	14	1,686,880
						47	9,118	47	20,789	47	60,705
....	*e*17,069,453		23,191,876		31,443,321		38,558,371		50,155,783		62,622,250

The total number of Indians, exclusive of Alaska, in the United States on June 1, 1890, was 248,155, divided as follows:

Reservation Indians and other Indians not taxed	189,349
Taxed Indians counted in the general census	58,806
Total	248,155

a North Dakota.
b South Dakota.
c Including 5,338 persons in Greer County (in Indian Territory), claimed by Texas.
d Includes 5,318 person on public ships in the service of the United States not credited to any State or Territory.
e Includes 6,100 persons on public ships in the service of the United States not credited to any State or Territory.

No. 174.—Production of PIG IRON [in tons of 2,240 pounds] in each State and Territory of the United States for each year from 1881 to 1893, inclusive, and the Number of Furnaces in 1881 and 1893, respectively.

[From the Annual Reports of the American Iron and Steel Association.]

States and Territories.	No. of furn'c's Dec. 31, 1881.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	No. of furn'c's Dec. 31, 1893.
New England & Middle States.															
Connecticut.....	10	25,431	21,734	17,836	12,655	15,625	17,312	19,412	19,325	21,557	20,136	21,811	17,107	12,478	7
Maine..... ...	1	3,929	3,661	3,928	.....	394	4,518	3,926	4,977	4,643	1,071	.....	.....	.....	.....
Maryland...	23	43,532	48,682	43,887	24,413	15,445	27,234	33,417	15,720	30,221	147,821	123,398	99,131	151,773	11
Massachusetts..	5	16,355	9,228	9,607	4,377	776	7,254	9,923	11,829	6,921	4,938	8,990	7,946	7,853	4
New Jersey.....	20	153,279	157,861	123,904	74,049	65,774	140,970	154,066	90,966	112,226	158,739	92,490	87,975	74,305	14
New York	58	320,999	371,568	296,396	213,827	142,997	208,588	264,796	229,625	265,399	329,804	315,112	310,295	191,115	27
Pennsylvania ..	278	1,856,059	2,186,836	2,356,153	2,129,823	2,183,479	2,940,437	3,289,838	3,204,630	3,733,252	4,415,329	3,952,387	4,193,805	3,643,622	199
Vermont.....	1	2,496	1,080	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Virginia..	11	59,294	65,375	78,927	49,313	61,613	88,052	73,492	85,053	105,268	129,438	86,283	154,793	81,591	4
Total..	407	2,581,374	2,866,025	2,930,638	2,508,457	2,486,103	3,434,365	3,848,870	3,662,125	4,279,487	5,207,276	4,600,471	4,871,152	4,162,137	266
Western States.															
Colorado.....	1	5,711	21,177	22,036	14,140	4,894	9,331	22,581	18,640	2,391	21,061	18,116	32,441	45,555	3
Illinois.....	14	224,805	321,792	212,194	292,471	292,897	448,031	504,869	517,238	536,638	701,106	669,202	949,450	405,261	19
Indiana.....	4	6,518	8,929	8,884	2,293	5,923	14,875	11,796	13,625	8,777	14,641	7,729	7,700	5,567	2
Michigan	27	167,003	187,674	154,629	154,317	127,787	170,298	190,663	190,403	191,395	230,769	213,145	184,421	117,538	20
Minnesota	1	6,645	7,255	7,143	.....	.....	.....	.....	.....	.....	.....	1,226	14,071	10,373	1
Missouri	17	98,035	101,468	92,229	53,610	45,900	66,538	123,788	81,949	76,955	89,776	29,229	57,020	32,360	4
Ohio	102	634,416	624,017	606,824	506,351	494,610	810,798	87 ,017	985,552	1,085,332	1,240,330	1,035,013	1,221,913	875,265	65
Wisconsin	15	91,098	76,660	46,333	47,156	21,993	58,869	119,204	103,004	141,638	219,854	197,160	174,961	131,772	10
Total.....	181	1,234,231	1,348,972	1,150,272	1,070,338	993,944	578,740	1,843,918	1,911,011	2,043,126	2,517,537	2,170,820	2,641,977	1,623,69	124

Michigan	27	167,003	187,674	154,629	154,317	127,787	170,298	190,663	190,403	191,395	230,769	213,115	184,421	117,538	20
Minnesota	1	6,645	7,255	7,143								1,226	14,071	10,373	1
Missouri	17	98,035	101,468	92,229	53,610	45,900	66,538	123,788	81,949	76,955	89,776	29,229	57,020	32,360	4
Ohio	102	634,416	624,017	606,824	506,351	494,610	810,798	87 ,017	985,552	1,085,332	1,240,330	1,035,013	1,221,913	875,265	65
Wisconsin	15	91,098	76,660	46,333	47,156	21,993	58,869	119,204	103,604	141,638	219,854	197,160	174,961	131,772	10
Total	181	1,234,231	1,348,972	1,150,272	1,070,338	993,944	578,740	1,843,918	1,911,011	2,043,126	2,517,537	2,170,820	2,641,977	1,623,69	124

No. 174—Production of PIG IRON [in tons of 2,240 pounds] in each State and Territory of the United States, etc.—*Continued.*

States and Territories.	No. of furn'c's Dec. 31, 1881.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	No. of furn'c's Dec. 31, 1893.
Southern States.															
Alabama	15	87,572	100,683	153,986	169,343	203,070	253,445	261,395	401,332	706,629	816,911	795,673	915,296	726,888	52
Georgia	10	33,396	37,893	40,503	38,085	29,396	41,509	36,560	35,176	24,606	29,185	49,858	9,950	39,675	5
Kentucky	24	41,047	59,391	48,776	40,225	33,529	48,968	37,417	50,705	37,963	47,861	44,844	56,548	47,501	9
North Carolina	7	714	1,027		388	1,598	1,964	3,250	2,143	2,588	2,849	3,217	2,908	2,843	2
Tennessee	26	78,041	122,860	119,640	120,176	143,928	177,827	223,521	239,224	263,085	267,626	291,738	300,081	207,915	22
Texas	1	2,679	1,179	2,126	4,589	1,645	2,902	3,913	5,881	4,057	9,701	18,662	8,613	6,257	4
Virginia	40	74,742	78,331	136,524	140,610	146,234	139,509	156,838	176,246	224,425	292,779	295,292	342,847	302,856	32
Total	123	318,191	401,367	501,525	513,416	559,400	666,124	722,944	910,707	1,263,353	1,466,903	1,499,284	1,636,243	1,333,935	126
Pacific States and Territories.															
California	1	3,941	881	4,756	1,926		1,562								
Oregon	1	5,446	6,027	6,250	3,250	3,421			2,240	8,416	10,987	9,295	7,628	4,739	1
Utah	2		51		481										1
Washington	1	1,071		2,069		1,658	2,538	1,416	3.655	9,260					
Total	5	10,458	6,959	13,075	5,657	5,079	4,100	1,416	5,895	17,676	10,987	9,295	7,628	4,739	2
Grand total	716	4,144,254	4,623,323	4,595,510	4,097,868	4,044,526	5,683,329	6,417,148	6,489,738	7,603,642	9,202,703	8,279,870	9,157,000	7,124,502	518

ANNUAL AVERAGE PRICES OF DOMESTIC PIG IRON, ROLLED BAR IRON, IRON AND STEEL RAILS, PER TON OF 2,240 POUNDS, AND OF CUT NAILS PER KEG OF 100 POUNDS, FOR EACH YEAR FROM 1850 TO 1893, INCLUSIVE.

[Furnished by the American Iron and Steel Association.]

Calendar Year.	Pig Iron. *a*	Bar Iron, rolled. *b*	Iron Rails. *c*	Steel Rails. *d* (Steel rails were first made in commercial quantities in the United States in 1867.)	Cut Nails. *e*
1850	$20 88	$ 59 54	$47 88		$3 71
1851	21 38	54 66	45 63		3 28
1852	22 63	58 79	48 38		3 13
1853	36 12	83 50	77 25		4 85
1854	36 88	91 33	80 13		4 76
1855	27 75	74 58	62 88		4 10
1856	27 12	73 75	64 38		3 92
1857	26 38	71 04	64 25		3 72
1858	22 25	62 29	50 00		3 53
1859	23 38	60 00	49 38		3 86
1860	22 75	58 75	48 00		3 13
1861	20 25	60 83	42 38		2 75
1862	23 88	70 42	41 75		3 47
1863	35 25	91 04	76 88		5 13
1864	59 25	146 46	126 00		7 85
1865	46 12	106 38	98 63		7 08
1866	46 88	98 13	86 75		6 97
1867	44 12	87 08	83 13	$166 00	5 92
1868	39 25	85 63	78 88	158 50	5 18
1869	40 63	81 66	77 25	132 25	4 87
1870	33 25	78 96	72 25	106 75	4 40
1871	35 12	78 54	70 38	102 50	4 52
1872	48 88	97 63	85 13	112 00	5 46
1873	42 75	86 43	76 67	120 50	4 90
1874	30 25	67 95	58 75	94 25	3 99
1875	25 50	60 85	47 75	68 75	3 42
1876	22 25	52 08	41 25	59 25	2 98
1877	18 88	45 55	35 25	45 50	2 57
1878	17 63	44 24	33 75	42 25	2 31
1879	21 50	51 85	41 25	48 25	2 69
1880	28 50	60 38	49 25	67 50	3 68
1881	25 12	58 05	47 13	61 13	3 09
1882	25 75	61 41	45 50	48 50	3 47
1883	22 38	50 30	*f*	37 75	3 06
1884	19 88	44 05	*f*	30 75	2 39
1885	18 00	40 32	*f*	28 50	2 33
1886	18 71	43 12	*f*	34 50	2 27
1887	20 92	49 37	*f*	37 08	2 30
1888	18 88	44 99	*f*	29 83	2 03
1889	18 75	43 40	*f*	29 25	2 00
1890	18 40	45 92	*f*	31 75	2 00
1891	17 52	42 56	*f*	29 92	1 86
1892	15 75	41 89	*f*	30 00	1 83
1893	14 52	38 08	*f*	28 12	*g*

a No. 1 anthracite foundry pig iron at Philadelphia.
b Best refined rolled bar iron at Philadelphia.
c Standard section of iron rails at mills in eastern Pennsylvania.
d At works in Pennsylvania.

ROLLED BAR
POUNDS, AND OF
OM 1850 TO 1893,

.]

Rails. *d* Cut Nails. *e*

	$3 71
	3 28
	3 13
	4 85
	4 76
	4 10
	3 92
	3 72
	3 53
	3 86
	3 13
	2 75
	3 47
	5 13
	7 85
	7 08
	6 97
00	5 92
50	5 18
25	4 87
75	4 40
50	4 52
00	5 46
50	4 90
25	3 99
75	3 42
25	2 98
50	2 57
25	2 31
25	2 69
50	3 68
13	3 09
50	3 47
75	3 06
75	2 39
50	2 33
50	2 27
08	2 30
83	2 03
25	2 00
75	2 00
92	1 86
00	1 83
12	*g*.....

Imerical quantities in the United States in 1867.)

ia.

But Ontario will press the button on June 26.

e Wholesale store prices in Eastern markets from 1846 to 1849, inclusive; since 1849 the quotations are wholesale store prices at Philadelphia.

f Since the beginning of 1883 the manufacture of iron rails in the United States has been almost entirely superseded by the manufacture of steel rails.

g Early in 1893 a new classification for cut nails was adopted, the base price and schedule of extras being changed to correspond with the wire nail schedule. We have therefore thought it advisable to omit cut-nail prices for 1893 entirely from the above table, as prices since that date, if compared with those ruling when the old classification was in operation, would be misleading. Both cut and wire nail prices have declined in 1892 and 1893 in sympathy with other iron and steel prices.

POPULATION OF CHIEF CITIES OF UNITED STATES.

Rank.	Cities.	Population, 1890.		Population, 1880.
1	New York	1,513,501	1	1,206,209
2	Chicago	1,098,576	4	503,185
3	Philadelphia	1,044,894	2	847,170
4	Brooklyn	806,343	3	566,663
5	St. Louis	450,245	6	350,518
6	Boston	446,507	5	362,839
7	Baltimore	434,151	7	332,313
8	San Francisco	297,990	9	233,959
9	Cincinnati	296,309	8	255,139
10	Cleveland	261,546	11	160,146
11	Buffalo	254,457	13	155,134
12	New Orleans	241,995	10	216,090
13	Pittsburg	238,473	12	156,389
14	Washington	229,796	14	147,293
15	Detroit	205,669	18	116,340
16	Milwaukee	203,979	19	115,587
17	Newark	181,518	15	136,508
18	Minneapolis	164,738	38	46,887
19	Jersey City	163,987	17	120,722
20	Louisville	161,005	16	123,758
21	Omaha	139,526	63	30,518
22	Rochester	138,327	22	89,366
23	St. Paul	133,156	45	41,473
24	Kansas City	132,416	30	55,785
25	Providence	132,043	20	104,857
26	Indianapolis	107,445	24	75,056
27	Denver	106,670	49	35,629
28	Allegheny	104,967	23	78,682
29	Albany	94,640	21	90,758
30	Columbus	90,398	33	51,647
31	Syracuse	88,387	32	51,792
32	Worcester	84,536	28	58,291
33	Scranton	83,450	39	45,850
34	Toledo	82,652	35	50,137
35	New Haven	81,451	26	62,882
36	Richmond	80,838	25	63,600
37	Paterson	78,358	34	51,031
38	Lowell	77,605	27	59,475
39	Nashville	76,309	40	43,350
40	Fall River	74,351	37	48,961

849, inclusive; since

In the United States
l rails.
ed, the base price
wire nail schedule.
r 1893 entirely from
e ruling when the
cut and wire nail
ron and steel prices.

STATES.

Population, 1880.
1,206,209
503,185
847,170
566,663
350,518
362,839
332,313
233,959
255,139
160,146
155,134
216,090
156,389
147,293
116,340
115,587
136,508
46,887
120,722
123,758
30,518
89,366
41,473
55,785
104,857
75,056
35,629
78,682
90,758
51,647
51,792
58,291
45,850
50,137
62,882
63,600
51,031
59,475
43,350
48,961

POPULATION OF CITIES—(*Continued.*)

Rank.	Cities.	Population, 1890.	Rank.	Population, 1880.
41	Cambridge	69,837	31	52,669
42	Atlanta	65,514	48	37,409
43	Memphis	64,586	54	33,592
44	Grand Rapids	64,147	58	32,016
45	Wilmington	61,437	42	42,478
46	Troy	60,605	29	56,747
47	Reading	58,926	41	43,278
48	Dayton	58,868	47	38,678
49	Trenton	58,488	64	29,910
50	Camden	58,274	44	41,659
	Totals	11,286,500		7,750,715

PENSIONS AND PENSIONERS FOR FISCAL YEAR, 1892.

United States.	*No.*	*Amount.*
Albama	2,775	$400,729 44
Alaska Territory	16	2,226 80
Arizona Territory	412	65,268 07
Arkansas	8,835	1,470,903 77
California	11,292	2,204,934 69
Colorado	4,902	656,697 98
Connecticut	10,956	1,238,256 83
Delaware	2,527	433,252 69
District of Columbia	8,581	1,632,861 88
Florida	1,947	319,021 32
Georgia	1,868	274,117 65
Idaho	789	113,628 50
Illinois	63,230	9,343,996 80
Indiana	65,120	10,435,529 43
Indian Territory	1,590	244,621 89
Iowa	35,642	5,310,988 96
Kansas	42,402	6,986,591 03
Kentucky	27,708	4,465,812 11
Louisiana	3,099	494,120 08
Maine	18,256	3,272,112 77
Maryland	12,212	2,154,775 56
Massachusetts	34,787	6,319,957 66
Michigan	42,258	7,471,548 90
Minnesota	14,623	2,155,095 80
Mississippi	2,769	353,432 37
Missouri	47,345	7,780,516 86
Montana	977	143,259 83
Nebraska	16,746	2,486,030 03
Nevada	215	36,409 30
New Hampshire	8,994	1,297,415 40
New Jersey	18,779	2,937,656 31
New Mexico Territory	918	149,340 88
New York	77,920	11,762,390 64
North Carolina	3,461	495,187 91
North Dakota	1,366	193,686 79
Ohio	93,386	16,113,541 34

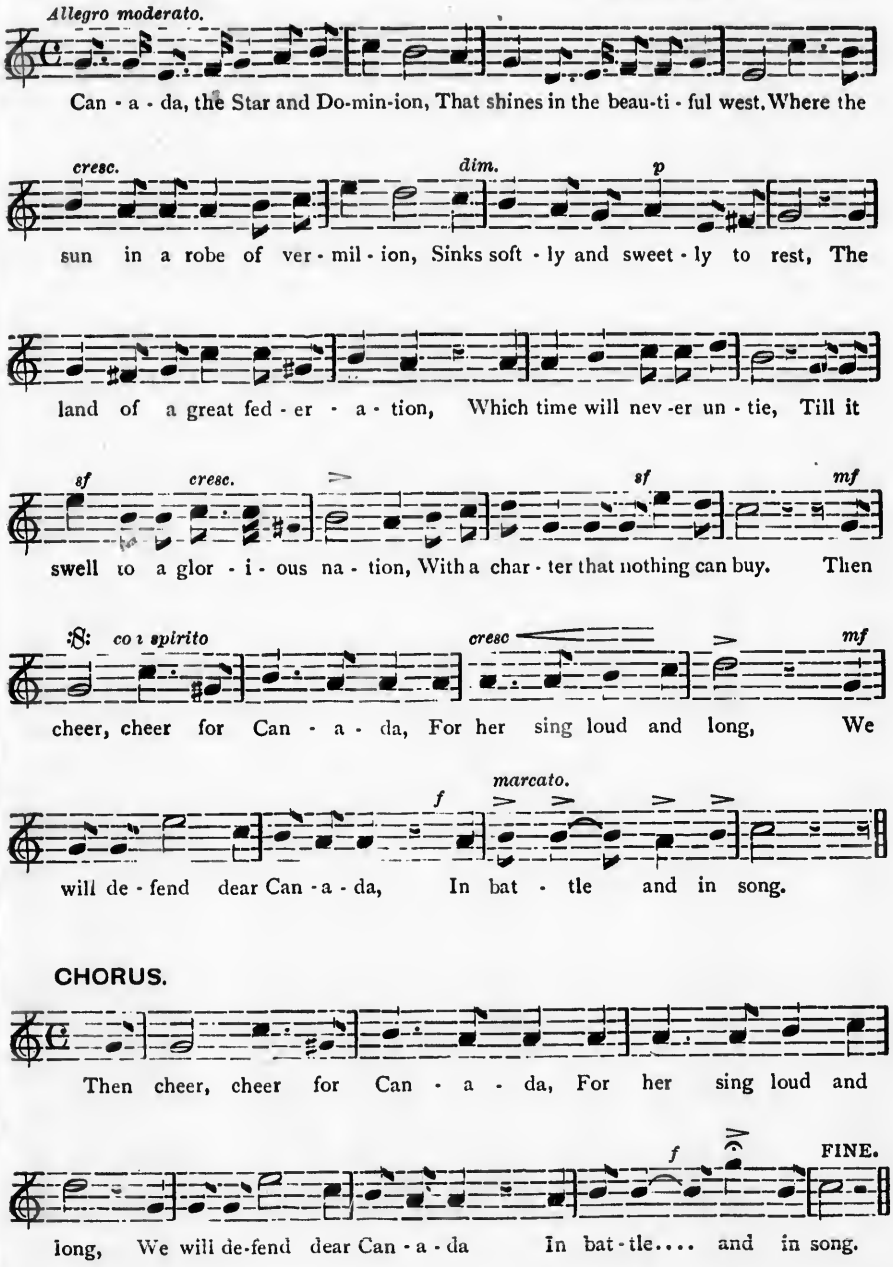
PENSIONS AND PENSIONERS—*(Continued.)*

United States.	*No.*	*Amount.*
Oklahoma Territory	2,984	$468,891 63
Oregon	3,452	425,033 97
Pennsylvania	85,370	12,506,167 92
Rhode Island	3,690	437,880 18
South Carolina	1,209	171,126 27
South Dakota	4,756	711,343 03
Tennessee	17,031	2,434,508 73
Texas	6,388	905,230 94
Utah Territory	692	89,737 84
Vermont	9,662	1,406,633 79
Virginia	6,078	1,047,952 16
Washington	4,238	524,137 32
West Virginia	12,290	2,158,703 12
Wisconsin	26,382	3,977,258 60
Wyoming	506	83,643 14
Total	872,621	$139,564,201 91

Foreign Countries.	*No.*	*Amount.*
Argentine Republic	1	$645 33
Australia	21	3,149 20
Austria-Hungary	1	144 00
Belgium	11	1,650 00
Bermuda	2	311 00
Brazil	4	478 13
British Columbia	27	1,927 60
Bulgaria	3	480 00
Canada	1,759	246,980 75
Central America	1	72 00
Chili	8	797 93
China	8	565 87
Corea	1	360 00
Cuba	7	744 00
Denmark	17	2,099 20
Fiji Islands	1	96 00
France	67	8,747 15
Germany	583	80,354 27
Great Britain	618	85,004 02
Guatemala	1	96 00
Hawaii	17	2,124 00
India	1	111 47
Italy	29	3,845 91
Japan	6	432 00
Liberia	1	360 00
Madeira	2	288 00
Malta	2	144 00
Mauritius	3	456 00
Mexico	41	4,860 25
Netherlands	14	1,954 00
New Zealand	4	324 00
Nicaragua	2	351 00
Norway	22	2,246 00
Portugal	1	54 00

Canada, the Gem in the Crown.

Words by J. DAVIDS. Music by F. H. TORRINGTON.



PENSIONS AND PENSIONERS—*(Continued.)*

Foreign Countries.	*No.*	*Amount.*
Roumania	1	240 00
Russia	1	207 00
Spain	6	855 00
S. African Republic	1	288 00
Sweden	33	4,221 47
Switzerland	70	9,302 00
West Indies	14	1,890 00
Total	3,472	$469,256 65
Addresses unknown	35	2,154 12
Grand total	876,068	$139,035,612 68

PENSIONERS, APPLICATIONS, CLAIMS AND PAYMENTS.

Fiscal Year Ending June 30.	Applications Filed.	Claims Allowed.	Pensioners on Roll. Invalids.	Widows.	Total.	Paid for Pensions.
1861.....	.....	.....	4,377	4,299	8,636	$1,072,461 55
1862.....	2,487	462	4,341	3,818	8,159	790,384 76
1863.....	49,332	7,884	7,821	6,970	14,791	1,025,139 91
1864.....	53,599	39,487	23,479	27,656	51,135	4,504,616 92
1865.....	72,684	40,171	35,880	50,106	85,986	8,525,153 11
1866.....	65,256	50,177	55,652	71,070	126,722	13,459,996 43
1867.....	36,753	36,482	69,565	83,618	153,183	18,619,956 46
1868.....	20,768	28,921	75,957	93,686	169,643	24,010,981 99
1869.....	26,066	23,196	82,859	105,104	187,963	28,422,884 08
1870.....	24,851	18,221	87,521	111,165	198,686	27,780,811 81
1871.....	43,969	16,562	93,394	114,101	207,495	33,077,383 63
1872.....	26,391	34,333	113,954	118,275	232,229	30,169,341 00
1873.....	18,303	16,052	119,500	118,911	238,411	29,185,289 62
1874.....	16,734	10,462	121,628	114,613	236,241	30,593,749 56
1875.....	18,704	11,152	122,989	111,832	234,821	29,683,116 63
1876.....	23,523	9,977	124,239	107,898	232,137	28,351,599 69
1877.....	22,715	11,326	128,723	103,381	232,104	28,580,157 04
1878.....	44,587	11,962	131,639	92,249	223,998	26,844,415 18
1879.....	57,118	31,346	138,615	104,140	242,755	33,780,526 19
1880.....	141,466	19,545	145,410	105,392	250,892	57,240,540 14
1881.....	31,116	27,394	164,110	104,720	268,830	50,626,538 51
1882.....	40,939	27,664	182,633	103,064	285,697	54,296,280 54
1883.....	48,776	38,162	206,042	97,616	303,658	60,431,972 85
1884.....	41,785	34,192	225,470	97,286	323,756	57,273,536 74
1885.....	40,918	35,767	247,146	97,979	345,125	65,693,706 72
1886.....	49,895	40,857	270,346	95,437	365,783	64,584,270 45
1887.....	72,465	55,194	306,298	99,709	406,007	74,815,486 85
1888.....	75,726	60,252	343,701	108,856	452,557	79,646,146 37
1889.....	81,220	51,921	373,699	116,026	489,725	89,131,968 44
1890.....	105,044	66,637	415,654	122,290	537,944	106,493,890 19
1891.....	363,799	156,486	536,821	139,339	676,160	118,548,959 71
1892.....	198,345	224,047	703,242	172,826	876,068	141,086,948 84
Total..	1,915,334	1,236,291	.....	.....	.....	$1,418,348,211 91

The Evening Star, which certainly cannot be classed as anything but a Reform paper, thus sums up Mr. McCarthy's speech of Wednesday night:

"If McCarthy had been a man of immature mind at the time he sang protection in the Conservative choir he might now be excused for the change in his opinion respecting Canadian politics. He was not then a stripling, but he has since been a disappointed man, whose prime object in life seems to be to defeat Sir John Thompson, who interfered with his life's desire—that of being a statesman. Unfortunately in his efforts he has degenerated into a destroyer, who offers no suggestions as to how this country's condition can be improved. He expressed a desire that protection should be abolished, but he gives no explanation as to how the revenue is to be raised. He would open the Canadian market to the world, but he has no ideas regarding the extension of the market for Canadians. His speech last night was the effort of a malcontent, whose first object is to slaughter his enemies and whose second is to profit by their fall."

CANADIAN FISHERIES.

The annual report of the Fisheries Department has been presented to Parliament. The total catch of the Canadian fisheries for the calendar year 1893 is valued at $20,686,660, subdivided as follows:—

Nova Scotia	$6,407,279
New Brunswick	3,746,121
British Columbia	4,343,083
Quebec	2,218,905
Ontario	1,694,930
Prince Edward Island	1,133,368
Manitoba and N. W. T.	1,042,093

These figures do not comprise the quantity of fish consumed by the Indians of British Columbia, which is estimated at about $3,000,000. The total value thus shows an increase of $1,500,000 over 1892. The large increase is entirely due to the enormous catch of salmon in British Columbia. It must be remarked, however, that there was a decrease in the output of the British Columbia canneries in 1892 from the previous year of 3,600,000 cans. Ontario shows the largest falling off in 1893, namely, $347,000, but this is more than made up by the increase of over $500,000 in New Brunswick. The yield in the other provinces differs but slightly from the previous year.

CANADA'S EASTERTIDE.

James L. Huddart, who is now here in connection with the fast Atlantic service, has engaged Mr. White, who supervised the building of the fastest steamers afloat, the Cunard liner's Campania and Lucania, to supervise the building of the new fast Atlantic steamers to run between Liverpool and Canada. The tonnage of these vessels is to be 10,000 and not 3,000 tons each, as at first reported. Mr. Huddart is most hopeful of forming a company with a capital of $10,000 as soon as the subsidy bill has been passed by the Canadian Parliament.

The *Times'* weekly letters on the Dominion of Canada are helping to shatter any of Goldwin Smith's theories which may be lurking in the minds of Englishmen. To-day's letter deals with Ontario and the Maritime Provinces in a most appreciative spirit as fields for British land settlement and British investment. In its editorial *The Times* says that Goldwin Smith's theory that Canada's only future is annexation with the United States is crumbling away before Canadian enterprise.

The Earl of Derby, the late Governor-General of Canada, made an eloquent and earnest plea on behalf of Canada before the Liverpool Chamber of Commerce.

He said that English Capalists should look more carefully than they do into the excellent chances for investment that Canadian mines, forests and agriculture offers.

The speches (at the United Empire Trade League) showed that the Australasian colonies were uniting strongly with Canada in urging the British Government to give aid in the way of subsidies to the proposed Atlantic and Pacific steamship service, and the Pacific cable, with much prospect of success under the Rosebery regime.

The above are all extracts from the cable despatches of the past few days.

Canada is to-day in the Eastertide of her nationality. Her pulse is that of a young man, 70 strokes to the minute, strong, and of chronometer-like regularity. Her winter of doubt and uncertainty has passed. She feels the quickening power of a national life that is every day pulsating more vigorously. Her glory is not in the past. Like the young man she rejoices in the future.

Canada has passed through a rugged childhood. Few countries in the world have such a rigorous climate as she. This youngest of the nations, however, has a constitution as rugged as the climate. The terrors and hardships of her Arctic winter have been subdued. No puny infant could have survived so stern a bringing-up as this young nation has been subjected to.

Not climate alone has Canada had to contend with. To the south of her is an overfed monster that has sucked her blood. For a long time the growing nation remained quiescent. The blood that should have gone to develope her own brain and muscles was absorbed by the monster. Not satisfied with so large a share of her life the monster repeatedly tried to swallow the young nation at a single gulp. But Canada to-day glories in a knowledge of the fact that the monster is powerless either to swallow her or to absorb much more of her life. No puny nation of men could have withstood the influence of this greedy octopus, whose tentacles were extended to crush the life out of everything that came in its way.

Besides her Arctic climate and this monster to the south, Canada has had a scattered and mountainous country to contend with. But where can a nation with so small a population be found to equal in enterprise and in audacity this little Canadian nation? We have made waterways for our ships. We have cut through the mountains and made a road for our locomotives from ocean to ocean. No *dulce far niente* nation of the Sunny South could have undertaken the public works that Canada has assumed and carried out.

The handful of people that have accomplished these things amid so many difficulties do not now intend to take their hands from the plow. The worst of our hardships are over. We have labored hard. We have worked earnestly. Confident in ourselves, we have enlisted the confidence of others. Especially now does the future look full of promise for Canada. The United States cannot harm us. England is prepared to lend a hand in the development of the projects we have in view. While Canada internally is making substantial progress, we are pushing her interests on the Atlantic and Pacific. It is not at all unlikely that a few months will see the completion of arrangements for the equipment of the last link of the greatest rail and ocean route in the world. And Canada is the author of it all. And there are several other big projects within sight, too.

Canada has much reason to rejoice in her youth and strength.

THE CANADIAN IRON INDUSTRY.

"There is a tide in the affairs of men,
Which taken at the flood, leads on to fortune:
Omitted, all the voyage of their life,
Is bound in shallows and in miseries.
On such a full sea are we now afloat,
And we must take the current when it serves,
Or lose our ventures."

These lines apply with peculiar force to Canada, in the present stage of her Iron Industry.

Events are transpiring from day to day in the neighboring Republic, which demonstrate that the Iron Industry of that great country has now reached such magnificent proportions, under the wise protective policy, so well maintained for the past forty years, that American iron masters are able to compete on equal terms with the world.

History repeats itself. As with England at the middle of the century, so now with the United States. Her Iron Industry has reached that stage when the Government of the country can consider the question of a reduction in its protective tariff, with comparative safety to the Industry itself.

To produce Pig Iron, the basis of all subsequent stages of the Iron Industry, a very heavy initial expenditure has to be made in the prospecting, securing, and developing of mines, woodlands, lime stone quarries, railways, shipping docks, etc., necessary to ensure a constant supply of raw material.

The establishment of the plant demands a heavier outlay, in proportion to the value of the product, than is required for the production of any other staple. It is the experience of almost every iron master, that in the early period of iron making in all countries, the work is more or less of an experimental nature, and as it must be carried on upon a large scale, and if unsuccessful the investment becomes worthless, the risk of ruin to the first adventurers is great.

It has necessarily resulted from these causes, that to start an Iron Industry on an important scale, in any country, however favorable its apparent natural conditions, state aid, either by a direct bounty, by a heavy protective duty, or by both combined, has been found necessary, and it is those countries where this has been *effectually done*, which are to-day the large producers of iron, not only supplying their own wants, but also those of other countries.

To deal with this question intelligently, it is well for Canadians to review, as briefly as the importance of the issues will permit, the history of the establishment and successful development of the Iron Industry in other countries, and particularly note the broad liberal policy of protection under which Great Britain and the United States alike built up the greatest and most successful iron industries of modern times.

The national importance of the question will perhaps in some measure excuse a lengthy reference to the splendid equipment in furnace plant, shipping docks and other accessories necessary to economical working, now possessed by our powerful competitors in the neighboring Republic.

GREAT BRITAIN.

The history of the British Iron Industry, dates back to the Roman occupation, as evidenced by the fact that in Kent, Gloucester, Yorkshire, and many other parts of England large quantities of iron cinder, as old as the Roman era, have been discovered. This has been further proved by the finding of Roman coins, pottery and altars in connection with the cinder.

From the days of the Romans down to the middle of the 17th Century, the furnaces and forges of England were operated altogether with charcoal as a fuel.

Aided by the protection to native iron inaugurated by Edward III, during his reign from 1327 to 1377, the Iron Industry made very good progress. In the 14th century the ironsmiths of England had brought the trade to a fine art, aiding thereby to establish the present industrial pre-eminence of England; locks, keys, hinges, and bolts produced during that period having never since been equalled in beauty of design.

In 1615 it is said that there were 800 furnaces, forges, or other mills making iron with charcoal, of which Dudley a few years later estimated that about 300 were furnaces, the weekly product of which was about 15 tons each.

The charcoal Iron Industry seems to have reached its height towards the close of the reign of Elizabeth, when the trade became so prosperous that instead of importing iron as she had hitherto done, England began to export it in considerable quantities, in the shape of iron ordnance. The extent of the operations, however, began to exhaust the forests of England about the beginning of the 17th century, and the British Parliament had to give its serious attention to the question.

In 1740, the production of pig iron in Great Britain was only 17,350 tons, her Iron Industry at this time having been almost destroyed by the decreasing supply of charcoal.

About 1750 mineral coal, in its natural state or in the form of coke, came into notice as a substitute for charcoal. The Iron trade of England and Wales at once revived, while that of Scotland may be said to have been actually created by this new fuel.

Great improvements were introduced in the furnace plants of Great Britain, and the Industry from that date forward advanced steadily.

In 1787 the British Government adopted a strong Protective Tariff for their Iron Industries, the duty on pig iron being placed in that year at 67/2 per ton, with higher rates for manufactured iron. This duty on pig iron was later on increased in 1819, and again in 1825, and the Protective Tariff in this department was maintained down to the year 1845.

The effect of the introduction of mineral coal, and of the protective duties levied on foreign iron was most beneficial. The Industry at once showed strength, and from that date continued to grow rapidly, until in 1796 there were 104 furnaces in England and Wales producing 108,793 tons of iron, and in Scotland 17 furnaces producing 16,086 tons.

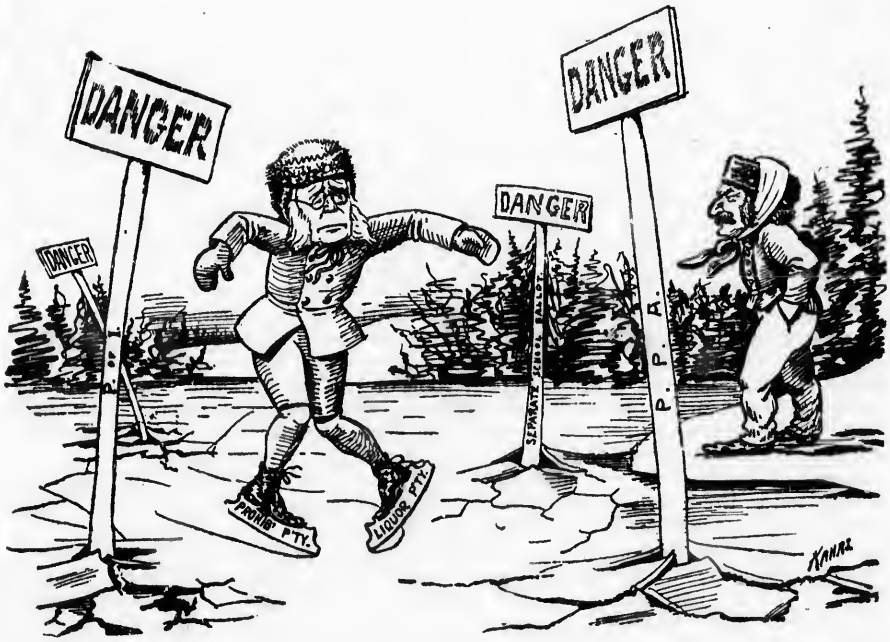
In 1820 the total production had reached 400,000 tons; in 1825, 581,367 tons; in 1840, 1,396,400 tons; and in 1854, 3,069,838 tons, this quantity being then estimated as fully one-half of the world's production of pig iron.

In 1889, Great Britain's production of pig iron had reached 9,321,563 tons of 2000 lbs. This, with a population estimated at 38,000,000 giving the enormous production of 495 lbs. per head. Of this output Great Britain herself consumes 250 lbs. per capita.

In considering the progress made it is well to remember the various Acts of Parliament enforced from time to time by England to protect her national Iron Industry, by preventing the emigration of her skilled artisans to other countries, by guarding against the sale of her inventions to competitors, and by the imposition of Customs duties upon foreign products.

For instance, while the growing scarcity of wood for the supply of charcoal convinced the Government and people of England, as early as 1750 (before mineral fuel had come into use,) that it would be to their advantage to allow the free admission of iron in its rudest form from the American Colonies, and that as a matter of fact they passed an Act, in that year, setting forth that it would be of great advantage not only to the colonies, but also to the kingdom, that the manufacturers of England should be supplied with pig and bar iron from the colonies free of duty, yet they so fully believed in protecting their own home industries, that the same Act that made the rudest forms of iron free of duty (because England was unable to produce the material herself), contained the following clause:

"That pig and bar iron made in her Majesty's colonies in America *may be fur-*



CROSS-ROADS—MOWAT v. HARDY.

ther manufactured in this kingdom, be it further enacted . . . . that from and after the twenty-fourth day of June, one thousand seven hundred and fifty, no mill or other engine for slitting or rolling of iron, or any plateing forge to work with a tilt hammer, or any furnace for making steel, shall be erected, or after such erection continued in any of her majesty's colonies in America, and if any person or persons shall erect, or cause to be erected, or after such erection continue, or cause to be continued, in any of the said colonies, any such mill, engine, forge, or furnace, every person so offending shall, for every such mill, engine, forge or furnace, forfeit the sum of two hundred pounds of lawful money of Great Britain, and it is hereby further enacted . . . . that every such mill, engine, forge, or furnace, so erected, or continued contrary to the directions of this Act *shall be deemed a common nuisance, etc., etc.*,"

By the Act in question Great Britain undoubtedly encouraged the production of pig and bar iron in America, by exempting them from duties to which like commodities were subject when imported from any other country, but she did this simply because she had not until that date found a fuel substitute for charcoal. A glance at the Act will moreover show that she imposed an absolute prohibition upon the erection of steel furnaces and slit mills in any of her American colonies.

Various other restrictive Acts of Parliament were passed in 1781, 1782, 1785 and 1795 to prevent the exportation to foreign countries of machinery and tools used in the manufacture of iron and steel, and to prevent skilled mechanics from leaving England.

For example, an Act in 1785, 25 Geo. III., c. 67 : "To prevent, under severe penalties, the enticing of artificers or workmen in the iron and steel manufactures out of the kingdom, and the exportation of any tools used in these branches to any place beyond the seas."

The penalty provided in this Act read :

"If any person or persons shall contract with, entice, persuade, or endeavor to seduce, or encourage, any artificer or workman concerned or employed, or who shall have worked at, or been employed in the iron or steel manufactures in this kingdom, or in making or preparing any tools or utensils for such manufactory, to go out of Great Britain to any parts beyond the seas (except to Ireland), and shall be convicted thereof . . . . shall for every artificer so contracted with, enticed, persuaded, encouraged or seduced, or attempted so to be, forfeit and pay the sum of five hundred pounds of lawful money of Great Britain, and shall be committed to the common gaol . . . . there to remain without bail or mainprize for the space of twelve calendar months, and until such forfeiture shall be paid, and in case of a subsequent offence of the same kind, the person or persons so again offending shall upon a like conviction, forfeit and pay for every person so contracted with, enticed, persuaded, encouraged, or seduced, or attempted so to be, the sum of one thousand pounds . . . . and shall be committed to the common gaol, as aforesaid, there to remain without bail or mainprize for and during the term of two years, and until such forfeiture shall be paid."

In addition to these restrictive measures, a glance at the protection afforded to the British manufacturers of iron from 1782 to the close of 1825, will demonstrate to Canadians the fact that England owes her greatness in the Iron Industry very largely indeed to the protection granted to her native industries in the early years of the trade.

Quoting from Scrivenor's History of the Iron Trade :

"From 1782 to 1795 the duty on foreign bars was £2 16 2 per ton. It rose to £3 4 7 in 1797. From 1798 to 1802 it was £3 15 5. In two years it had got to £4 17 1, and from 1806 to 1808 it stood at £5 7 5½d. In the three years between 1809 and 1812 it was £5 9 10, and in the five years ending with 1818 it had been £6 9 10.

"At this date a distinction was made in the interests of British shipping, for whilst thenceforward till the close of 1825, the duty on foreign bars was £6 10 if imported in British ships, it was £7 18 6 if imported in foreign. Nor was this all :

iron slit, or hammered into rods, or iron drawn down, or hammered, less than three-quarters of an inch square, was made to pay a duty at the rate of £20 per ton; wrought iron, not otherwise enumerated, was taxed with a payment of £50 for every £100 worth imported; and steel, or manufactures of steel, were similarly loaded with a fifty per cent. duty."

Mr. James Mavor, the present Professor of Political Science in the University of Toronto, quoting from Conrad's Handworterbuch der Staats Wissenchafter, Vol. III, page 45, and also from various other authorities, give the following data in regard to the duties imposed at various times by Great Britain, in the interest of her Iron Industry.

"The duty imposed on pig iron in 1787 was 67/2 per ton. Duty increased 1819 to 130/- per ton on pig iron. Duty raised 1825 by 10/- per ton. Duty altered 1842, 25 per cent. ad valorum on pig iron. Duty abolished 1845.

"Duty on manufactured iron altered 1845, 15 per cent. on manufactured iron and steel, this subsequently reduced to 10 per cent. Duty on iron wholly abolished 1860."

Among other measures quoted by this authority are special rates for carrying coals to iron works, embodied in the earlier railway acts.

The period of protection by high Customs duties extended from 1787 until 1860, giving to the Iron Industry protection of a permanent character for upwards of 73 years.

The restrictive measures cited, although they were in many cases harsh, undoubtedly resulted in building up an industry of great value not only to Great Britain, but to the world at large.

UNITED STATES.

Great as has been the progress made in the Iron Industry of Great Britain, still more marvellous has been that of the United States, especially when we consider that the development of the American Iron Industry has been made very largely within the past thirty years, and a full consideration of the facts will show that this rapid growth has been due almost altogether to the fact that during that thirty years, the Government of the United States has stood firmly by the policy of protection to the native Industry, and that the greatest progress was undoubtedly made when the protection was at its highest point.

The first attempt to establish iron works in the United States was made in 1619, the works being located at Falling Creek, a tributory from the James River, in Virginia. This was unsuccessful, but during the 18th century Virginia became quite prominent in the manufacture of Iron.

In 1643 an Iron Works was started in the Province of Massachusetts Bay, which claims to be the first successful iron works established in America. Several other forges were erected at various points throughout New England, in all cases the fuel being charcoal.

In the State of New York the first iron works would seem to have been erected in 1740 on Ancrum Creek, Columbia County, close to the Hudson River. This furnace was contemporary with our own St. Maurice forge erected A.D. 1752.

In 1800 the celebrated Champlain iron district was developed, and in 1801 the first iron works in the district were built. As in New England, so in New York and throughout the United States charcoal was the only fuel used at this period.

New Jersey saw her first iron furnace in 1676, and Pennsylvania, the greatest producer of all the States, saw the inauguration of the Industry under the able administration of Wm. Penn in 1716, the iron produced by one Thomas Rutter Smith, who lived not far from German Town, being said to have proved equal to the best Swede iron.

In 1728 there were four furnaces in blast in Pennsylvania, and from that date forward the Iron Industry of the State was assured.

Space prevents a more minute description of the difficulties experienced and overcome by the pioneer furnacemen of the United States.

Coming down to more modern days, the following statistics, dating from 1854 to 1890 will serve to show the magnificent development of the American Iron Industry, under the Protectiv Tariff shown in the list.

PRODUCTION OF PIG IRON IN THE UNITED STATES FROM 1854 TO 1890.

Net tons of 2,000 pounds.

CALENDAR YEARS	Anthracite and mixed anthracite and coke.	CHARCOAL.	Coke and raw bituminous.	TOTAL.	Duty on Pig Iron of all kinds.
1854 ...	339,435	342,298	54,485	736,218	30 per cent.
1855....	381,866	339,922	62,390	784,178	30 " "
1856....	443,113	370,470	69,554	883,137	30 " "
1857....	390,385	330,321	77,451	798,157	30 " "
1858....	361,430	285,313	58,531	705,094	24 " "
1859....	471,745	284,041	84,841	840,627	24 " "
1860....	519,211	278,331	122,228	919,770	24 " "
1861....	409,229	195,278	127,037	731,544	24 " "
1862....	470,315	186,660	130,687	787,662	$6.00 per ton.
1863....	577,638	212,005	157,961	947,604	6.00 " "
1864....	684,018	241,853	210,125	1,135,996	6.00 " "
1865....	479,558	262,342	189,682	931,582	9.00 " "
1866....	749,367	332,580	268,396	1,350,343	9.00 " "
1867....	798,638	344,341	318,647	1,461,626	9.00 " "
1868....	893,000	370,000	340,000	1,603,000	9.00 " "
1869....	971,150	292,150	553,341	1,916,641	9.00 " "
1870....	930,000	365,000	570,000	1,865,000	9.00 " "
1871....	956,608	385,000	570,000	1,911,608	7.00 " "
1872....	1,369,812	500,587	984,159	2,854,558	7.00 " "
1873....	1,312,754	577,620	977,904	2,868,278	6.30 " "
1874....	1,202,144	576,557	910,712	2,689,413	6.30 " "
1875....	908,046	410,990	947,545	2,266,581	7.00 " "
1876....	794,578	308,649	990,009	2,093,236	7.00 " "
1877....	934,797	317,843	1,061,945	2,314,585	7.00 " "
1878....	1,092,870	293,399	1,191,092	2,577,361	7.00 " "
1879....	1,273,024	358,873	1,438,978	3,070,875	7.00 " "
1880....	1,807,651	537,558	1,950,205	4,295,414	7.00 " "
1881....	1,734,462	638,838	2,268,264	4,641,564	7.00 " "
1882....	2,042,138	697,906	2,438,078	5,178,122	7.00 " "
1883....	1,885,596	571,726	2,689,650	5,146,972	7.00 " "
1884....	1,586,453	458,418	2,544,742	4,589,613	6.27 " "
1885....	1,454,390	399,844	2,675,635	4,529,869	6.72 " "
1886....	2,099,597	459,557	3,806,174	6,365,328	6.72 " "
1887....	2,338,389	578,183	4,270,635	7,187,206	6.72 " "
1888....	1,925,729	598,789	4,743,989	7,268,507	6.72 " "
1889....	1,920,354	644,300	5,951,425	8,516,079	6.72 " "
1890....	2,448,781	703,522	7,154,725	10,307,028	6.72 " "

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D STATES

Duty on Pig Iron of all kinds.	
30	per cent.
30	" "
30	" "
30	" "
24	" "
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$6.00	per ton.
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THE SEASON FOR COON HUNTING.

Sir Oliver—"Better drop in here, George, it's your only chance."

In an able article, "From Mine to Furnace," Mr. John Birkbinbine, Pa President, Am. 1st. M. E. recently said : "The following remarks concerning t progress of the Pig Iron Industry, and a prophecy as to its future, appeared Vol. XV of the tenth census, that of 1880, which is presented here to show ho much more rapidly the Industry has developed than was then anticipated wou be the case eight years ago, when it was written.

"'In 1866 the United States had reached the production of Great Britain 1835, that is to say, she was then thirty-one years behind the latter country. 1844 she was about twenty-one years behind England, and at the same rate increase for both countries the United States will be about fifteen years behi England in the year 1900, and will reach and pass her in 1950. The productio of Pig Iron of each country for that year, as determined from the equation of the respective curves, being a little over thirty million tons.'

"The facts are that in 1890 the United States passed, and has since that tin led Great Britain as a producer of Pig Iron."

In a paper read at a meeting of the American Institute of Mining Engineer in October, 1890, by its then President, Hon. Abram S. Hewitt, he showed comparative rate of increase in population and pig iron production in the Unite States for six decades, and brought out the striking conclusion that the productio of pig iron has always increased more rapidly than the population, and that th ratio is an increasing one.

Between 1830 and 1860 the production of iron increased twice as fast as th population. Between 1860 and 1890 it increased four times as rapidly, in realit over four times, thus proving that the national wealth continues to grow fro decade to decade, at a rate of acceleration of which the world affords no previou example.

Inasmuch as during all this time the United States have imported iron i addition to their native production, it follows that the consumption per capita ha also increased more rapidly than the population.

In 1855, according to careful calculations made by Mr. Birkinbine, the Unite States was consuming iron at the rate of 117 lbs. per head, whereas in 1890 th consumption had increased to rather more than 300 lbs. per head, the whole which, for the first time in the history of the country, was being produced withi American borders.

Mr. Birkinbine, in speaking of the present and future of the iron industry deplores the fact that part of the development has been brought about by rea estate speculations, which he rightly conjectures will exert a restricting influenc in the near future. He is, however, of the opinion that,

"If political action does not disturb the industry, or if labor troubles do no seriously interfere with the development, there seems to be no reason for expec ing that the pig iron industry will remain dormant, but we may rather look for nearly steady growth, which at the expiration of twenty-five years will probabl make the annual requirements of the United States in pig iron, or its equivalen amount to between twenty and twenty-five million gross tons."

These figures Mr. Birkinbine states are the result of a careful study of statis tics, taken in connection with an intimate knowledge of the present state development, and a personal acquaintance with the possibilities of various portion of the country. He says :

"There will be times of depression like the present, preceded and followed b others of unusual activity, but we may confidently look forward to a materi advance, perhaps greater than estimated, but certainly much more pronounce than was believed possible ten years ago."

IRON ORE.

The following figures taken from the "Report of Mineral Industries in th United States" at the 11th census, 1890, will give some idea of the magnitude the iron industry of the United States.

In 1889 the production of iron ore in the United States including red hematite, magnetite, brown hematite and carbonate, amounted to $14,518,041 gross tons, of a total value of $33,351,778.

The total capital invested in the ore mines in the same year is given as $109,766,199. This is all expended within the country on the native ores.

In addition to this iron ore was imported in the same year from foreign countries to the extent of 853,573 tons, valued at $1,852,392.

With reference to foreign ore imported into the United States, Mr. Birkinbine in his "Production of Iron Ore," 1892, says :

"While the United States has large deposits of iron ore of all kinds, widely distributed throughout the various States and Territories, still the low rates of wages in foreign countries, and cheap water transportation rates, have admitted considerable quantities of iron ore into this country, in spite of a specific duty of 75 cts. per ton, which is collected on all iron ore imported. In the year ending December 31st, 1892, iron ore to the amount of 806,585 long tons, valued at $1,795,644 or $2.23 per ton, was thus imported. All of this iron, however, is consumed near the ports of entry, and much of the ore entering the port of Baltimore is unloaded direct from the vessels to the stock piles. This is also the case with one Pennsylvania furnace."

All the iron ore imported from Cuba is taken from the mines operated by American companies. Until 1892, but one company was mining and shipping ore from Cuba, but last year a second enterprise was represented by actual shipments, and 1893 is expected to add at least one more active corporation to the list of Cuban mines.

It is significant, in looking over the list of imports for 1889, to find that whereas Cuba supplied 243,255 tons, of a value of $535,524, the Provinces of Quebec, Ontario, Manitoba and the North West Territories combined, supplied (be it remembered under equal conditions as to the tariff) only 4,091 tons, of a total value of $10,697.

Again in 1892, statistics show that whereas Cuba supplied 307,115 tons, valued at $618,222, Quebec, Ontario, Manitoba and the North West Territories supplied only 8,606 tons, British Columbia 2,749, a total export for all Canada of 11,355 tons, valued at $27,340.

Spain was the largest supplier of ore in 1889, sending 298,568 tons, of a value of $621,481.

These statistics prove that up to the present time Canadians have found it impossible to compete successfully against the negro labor of Cuba, and the cheap labor of Spain in supplying iron ore to the American market. The question Canadians have to ask is whether under uniform free trade Canada can hope to improve her position as against her Cuban and Spanish competitors. This seems highly improbable. All the facts point to one conclusion, viz., that Canadians must turn their attention to smelting their own ore for the home market.

EQUIPMENT AND SHIPPING FACILITIES.

The equipment of the American mines and furnaces surpasses in excellence that of any of the European nations, and the facilities they possess for cheap transportation of ore from mine to furnace is unrivalled. The shipping docks at Marquette, L'Anse, and St. Ignace, Mich., are worthy of special notice.

These docks have been constructed at a heavy cost by the railways which penetrate the interior, for the special purpose of facilitating the handling of Lake Superior ores at the minimum of cost, and they furnish a very striking example of the foresight and enterprise of American railroad men, who perhaps more than any other class, realize the national importance of the Iron Industry.

These terminal facilities consist of shipping docks, with elevated railroad tracks from 35 to 47.5 feet above water level. By means of drop bottoms the ore is dumped from the cars into pockets, thence to be discharged at will by means of

iron chutes let down into the vessel's hold. By this system the ore is rarely, if ever, handled, from the time it leaves the mine until it reaches lower lake ports.

The total investment for docks, especially for handling and shipping iron ore is placed, by so good an authority as Mr. Birkinbine, at approximately $4,000,000 in the year 1889.

RECEIVING DOCKS.

Of equal importance is the system of receiving docks, specially erected for the purpose of handling ore to blast furnaces, or at points from which railroads radiate to blast furnaces

These docks are of various types, generally furnished with swing boom derricks operated by steam power. By means of these derricks iron buckets are lowered into the holds of the vessels. After being filled with ore by the navvies the buckets are raised again, and swung to the point where the ore is to be deposited, or if for distant points, into hoppers, thence to be discharged into cars. The buckets dump automatically at the point desired, and return to the hold without detaching from the machinery.

It is estimated that the capital invested for receiving docks fully equals that mentioned for shipping docks, and that one such receiving dock alone costs, equipped, fully $800,000.

The investment, although large, is well spent, for by means of these facilities it has been found possible to handle quantities of ore, which could not have been moved in any other way, while the cost of handling has been reduced to a minimum.

Mr. Birkinbine gives the following data as to the cost of handling ore by the new system of receiving docks.

"The expense of shovelling ore into buckets in the holds of vessels, varies from 10 to 15 cents per long ton, the rate being controlled by stevedores, while with the approved apparatus at some of the docks, this ore in buckets is lifted from the vessel, carried back 350 feet, and dumped, at a total cost, including labor, wear and tear, interest, fuel accounts reported, of from 1 to 1.5 cents per ton.

"With 21 men in the hold of a vessel carrying 2,000 long tons of iron ore, the entire cargo has been stocked in 17 hours. Other instances are mentioned where with 28 men 2,200 long tons were similarly handled in 15 hours, and 2,100 long tons were handled by 18 men in 17 hours.

"In using these improved apparatuses in loading from stock piles to railroad cars, it is not uncommon to have a gang of men shovelling into buckets, and loading the ore on cars at the rate of 8 or 9 tons per man per hour."

In addition to these unrivalled facilities for economical handling of raw material, the American furnaceman works under most advantageous circumstances with regard to the large output of his furnace.

As an example, one of the furnaces in connection with the Edgar Thompson Steel Works, of Pennsylvania, recently produced the remarkable output for a single day of 623 tons of iron. In a week one furnace stack in connection with this company produced 3,203 gross tons, and in a month one stack produced 12,800 gross tons. That is, in one month, one of these furnaces produced fully as much as twenty-five years ago would have been turned out in a year, from the best and largest of the American blast furnaces.

With such splendid facilities for economical working, with ample capital, and many other benefits accruing from a long continued policy of protection, the American Iron Industry stands to-day in a perfectly safe position, the trade (aside from the ordinary periods of depression common to all industries) bound to increase in volume, the whole future of the industry linked with the life of the nation.

CONTINENTAL STATES.

Following the example of Great Britain and the United States, France, Belgium, Germany, and other Continental States established, and still maintain,

SIR OLIVER—"Oh, don't go Christopher, at this critical time?"

THE DEPARTING ONE—"I am not going, Captain; I will sit on the wharf and watch you."

high protective duties with most beneficial results in many branches of the Iron Industry.

Germany's case is especially worthy of mention.

On the 14th May, 1882, Bismarck, in a speech before the German Reichstag, said:

"The success of the United States in material development is the most illustrious of modern time. The American nation has not only successfully borne and suppressed the most gigantic and expensive war in all history, but immediately afterwards disbanded its army, found employment for all its soldiers and marines, paid off most of its debt, gave labor to all the unemployed of Europe, as fast as they could arrive within its territories, and still by a system of taxation so indirect as not to be perceived, much less felt. *Because it is my deliberate judgment that the prosperity of America is mostly due to its system of protective laws, I urge tha Germany has now reached that point where it is necessary to imitate the tariff system of the United States.*"

Bismarck gave to Germany a protective policy with something of a permanent character, and the result has been the building up of a great national industry in that country.

In 1834 Germany and Luxemburg, included in the Zollverein, produced only 110,000 metric tons (2,204 lbs.) of pig iron. In 1881 Germany and the Grand Duchy of Luxemburg produced 2,914,009 metric tons (2,204 lbs.). In 1890 the production had increased to 4,637,239 metric tons. This increase in pig iron has been accompanied by an enormous increase in the output of coal and lignite.

As an illustration showing Germany's progress in the manufacture of basic steel, in 1890 England produced 503,400 tons of basic steel, Germany, Luxemburg and Austria produced 1,695,472 tons.

CANADA.

Canada's "natural fitness" for the successful establishment of the Iron Industry is beyond question.

The earnest work performed by the Geological Survey of Canada, and by private prospectors, has well established the fact that throughout a very large part of her vast territory (three and a half millions of square miles in extent) she is rich in iron ores of almost every variety known to metallurgy.

Commencing at the Atlantic seaboard, Canada can claim in

CAPE BRETON

extensive deposits of brown hematite, magnetite and spathic ores, lying side by side with coal fields of great magnitude.

NOVA SCOTIA.

The limonite, specular and spathic clay iron-stone and hematite of Pictou county, specular ore in Guysboro county. At Londonderry an immense vein of anchorite holding brown hematite.

Between Truro and Windsor numerous deposits of brown hematite, often highly manganeferous.

A range of ferro-ferous strata extending from Digby to Windsor, embracing red hematite and magnetite of Nictaux and Clementsport.

Throughout the whole of this district mineral fuel and fluxes occur in close proximity to the iron mines, affording exceptional facilities for economic furnace practice.

NEW BRUNSWICK.

Magnetic and bog ores, with coal fields at Grand Lake and elsewhere, and a plentiful supply of hardwood for charcoal purposes.

QUEBEC.

The bog and lake ores of this province are probably the most extensive deposits of a like nature in the world. The ore be[illegible]ng area extends from the borders of Ontario in the west to Gaspe in the east, a[illegible] on the other hand from the eastern townships to the Laurentian Range of mountains, embracing the historical Three Rivers ore district.

Good deposits of magnetic ores are found throughout the province, especially in the vicinity of Sherbrooke, Leeds, Sutton, St. Jerome, and in Pontiac county.

An inexhaustible growth of hard wood, suitable for the manufacture of charcoal is everywhere found in close proximity to the iron deposits. Limestone for flux is most abundant throughout the province.

ONTARIO.

Vast deposits of ore exists throughout Ontario from the Ottawa Valley to the head of Lake Superior.

The ore is of many varieties, magnetic, red hematite, limonite, specular, and occasionally bog ores, all more or less rich in metallic iron.

At the recent World's Fair in Chicago, Ontario exhibited no less than 120 samples of iron ore taken from her various mines, all these samples averaging 60% and over in metallic iron, and many of them exceptionally free from impurities. Most notable among the localities sending exhibits were the Ottawa Valley, including Lanark, and the Kingston and Pembroke districts, Madoc and other points in the county of Hastings, Haliburton, Coehill, and other locations in the county of Peterboro, East Algoma, Thunder Bay district, including Atak-Okan Range.

In the matter of fuel, Ontario, like her sister province Quebec, possesses most extensive forests of hard wood, admirably suited for the production of charcoal.

She is also rich in fluxes.

MANITOBA.

Deposits of magnetic and box ores on Lake Winnipeg, with an abundant growth of hard wood suitable for charcoal in the vicinity of the mines.

BRITISH COLUMBIA.

While the work of exploration has necessarily been limited, yet the Magnetic ore deposits at Texada Island, and Cherry Creek Bluff are already fairly well proved by actual work. The ore from these mines has found a market at Tacoma, Wash., U.S.

British Columbia is very rich in both coal and wood, the outputs of her collieries at Nanaimo, Wellington and Comox showing a steady increase in tonnage.

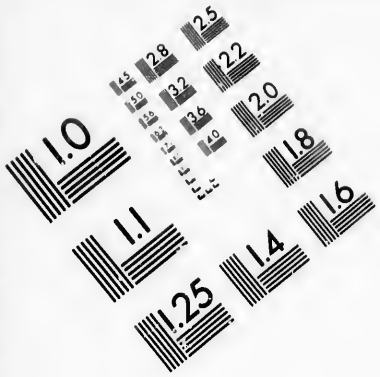
RAW MATERIAL.

While in the actual work of proving and developing her mines Canada has up to the present accomplished comparatively little; yet the careful preliminary explorations already referred to make it most evident that in raw materials Nature has unquestionably endowed Canada with everything necessary to success.

MARKET.

Satisfied as to the possession of raw materials, the next most important question for Canadians is a market for the finished product. All facts and figures go to prove that for many years to come Canada's natural market for iron products lies within her own borders, side by side with her mines and forests.

According to the best authorities, Canada uses to-day upwards of 250 lbs. of the products of iron per capita. This on a population of say five millions means, roughly speaking, an annual consumption of 600,000 net tons. In his report of the "Bureau of Mines of Ontario" for 1892, Mr. Arch. Blue estimates the consumption to equal (after making all due allowance for waste in converting pig iron into fin-



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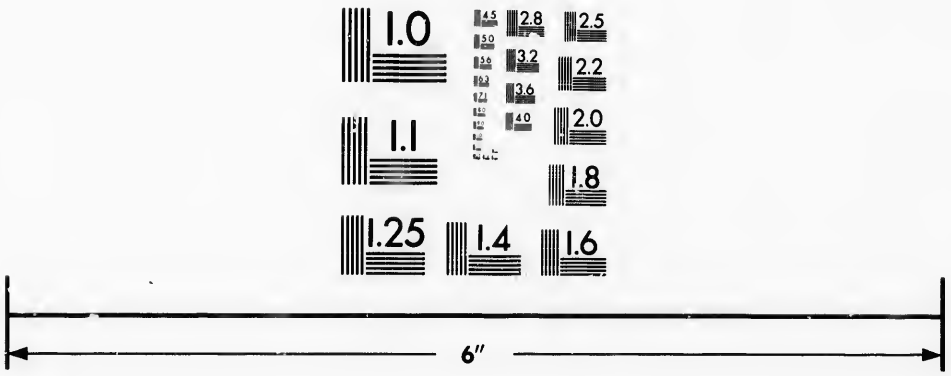

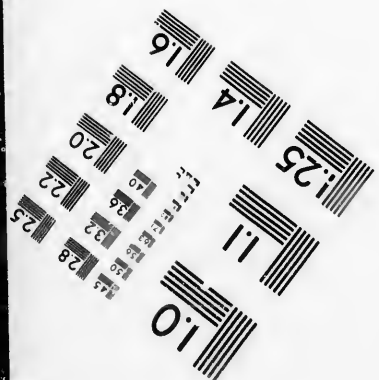

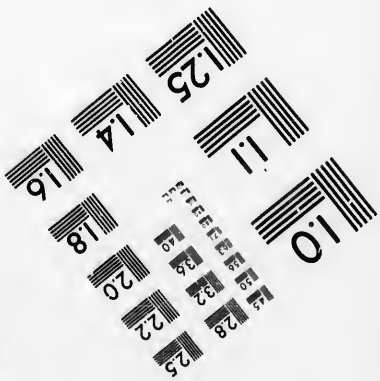

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ished iron and steel) say, 604,252 tons for 1891-92. To better realize the accuracy of these figures, it must be remembered, for instance, that Canada possesses to-day not less than 15,000 miles of railway, standing high among the nations in this particular regard. When her 15,000 miles of railway line is laid with standard 72 lbs. rails (the rail of the future) she will have at 113 tons per mile, in round figures, 1,500,000 tons of steel rails. The average life of a rail is 15 years, therefore renewals are being made continually, and as a matter of fact the Dominion is using in this department alone, 100,000 tons of the product of iron annually.

During the past year one of our great Trans-Continental Lines alone imported 36,000 tons of steel rails.

The Canadian Railway Companies, if they follow the example of their American rivals, will heartily support the production of steel rails from Canadian ore by Canadian labor. The revenue to be obtained from the carriage of raw materials to the furnace, and of the finished product to the market, as well as through an increased passenger traffic, will more than compensate for the extra price they will be called upon to pay for rail equipment during the first years of the industry.

All the rails used in Canada to-day are of foreign make.

As a further illustration, the Rolling Mills at Montreal, Hamilton, Swansea, New Glasgow, N.S., and elsewhere, are producing annually, at a fair estimate, 80,000 tons of the products of iron. Unfortunately the raw material for this great output is very largely foreign, although there is no good reason why within the next few years every ton of this should not be supplied by Canadian labor from Canadian ore.

Our iron founders use annually about 80,000 tons of pig iron in castings such as stoves, agricultural implements, and machinery of all classes, one-half only of the material used in this class of work being the production of Canadian furnaces.

Aside from these leading lines the country consumes each year a large quantity of such products of iron as band and hoop iron, special quality bar iron, steel boiler plates, steel sheets, sheet iron, chain cables, slabs, blooms, bridge and structural iron, railway fish plates, rolled beams, nail and spike rods, wire, locomotive tires, iron and steel for ships, steel ingots, bars, and other forms of iron too numerous to mention, but almost wholly the product of foreign labor.

In railways and shipping, Canada pretty well holds her own, proportionately to population, with either Great Britain or the United States.

Possessed of the necessary raw materials, and reasonably protecting her own home market, there is no reason why she should not in proportion to her population hold an equally prominent position in her Iron Industries.

The history of the Canadian Iron Industry dates back to the establishment of the St. Maurice forges by the French government about the year 1737. This was followed at various periods by the erection of iron works at Batiscan, L'Islet, Hull, Baie St. Paul and Mosiac, in the Province of Quebec.

Furnace Falls, Normondale, Marmora, Madoc and Houghton, in the Province of Ontario.

Woodstock, in New Brunswick.

Moose River, Nictaux and Bloomfield, in Nova Scotia.

In course of time each and every one of these enterprises had to succumb to the competition of foreign iron, then admitted free of duty into Canada.

In addition to the difficulty of competing with the more advanced industries of other countries, Canadian pioneer furnacemen labored under many grave disadvantages. The records in every instance speak of small outputs, lack of capital, lack of shipping facilities, mismanagement—good and sufficient reasons in any country, or in any branch of industry, for ultimate failure.

In not a single case has it been shown that lack of raw materials necessitated the closing down of a Canadian furnace. It is true that an almost absolute want of proper shipping facilities in these earlier days made it troublesome and costly to procure raw materials and deliver them at the furnace, but this difficulty has long since been removed by the easy shipping facilities afforded through the net-

work of railways now in operation all over the country, not to speak of the perfect waterways and splendid system of canals now possessed by the Dominion.

Passing over the pioneer stage, we come to perhaps the most important epoch in the history of the Iron Industry in Canada, viz., the introduction of the protective tariff on iron, which came into force in 1887. The tariff as then framed and still in force was based upon the American tariff of import duties on iron and steel and their products, in the proportion of about two-thirds of the said American tariff, and unquestionably the Dominion Government designed the tariff with a view to protecting native Canadian labor against the cheaper labor of Europe and the better equipment of the United States. It was evidently the intention of the Government in doing this to afford at least an equal ratio of protection to labor in whatever branch of the industry it was employed, as this is the system upon which the American tariff is undoubtedly based, and the only system possible of complete success.

Unfortunately the Dominion Government made one mistake, viz., the admission of wrought scrap iron, as the raw material for the manufacture of bar iron, at a less rate of duty than puddled bars, blooms and billets, with which it came into competition. This exception is, as Sir Charles Tupper once said, "the one blot" on the tariff, for it has ever since deprived Canadian furnacemen of a home market for their forge iron, a class of iron which in the order of things they must necessarily produce from time to time, and which should be used by the Canadian rolling mill men as their raw material for bar iron, either in the shape of puddled bars, or soft steel billets, as the trade may demand.

The admission of scrap iron at a low rate of duty has resulted in two evils. First, it has retarded the progress of the manufacture of pig iron from Canadian ores, inasmuch as the iron masters cannot afford to produce puddled bars or steel billets at competitive prices with cheap wrought scrap. Secondly, it has caused the Canadian rolling mill proprietors to make investments in special plant for the manipulation of scrap, and brought about a condition of affairs in the rolling mill business that will be greatly disturbed by any sudden change in the tariff with regard to the admission of wrought scrap.

It is the plain duty of the Government to rectify the mistake it has made, but to do so with due regard to the vested interests of all sections of the industry.

This may be done in several ways; for instance, by naming a definite date, say within from three to five years, when wrought scrap, the present raw material for Canadian bar iron, shall be placed at the same rate of duty as puddled bars or steel billets with which it comes into competition, and that in the meantime a sufficient bounty be granted, either to the rolling mill companies on such iron and steel as they may produce from the products of Canadian blast furnaces, or to the blast furnace companies direct, as an inducement to them to produce steel billets and puddled bars, so that they may shortly be in a position to supply the mills (at a reasonable living profit to themselves) with all the raw material necessary for the manufacture of bars and other finished iron.

It is not improbable but that a comprehensive arrangement on some such lines would result in the rolling mill companies considering the question of going into blast furnace work on their own account, with most beneficial results to the whole Dominion, or they may adopt the course of erecting plant for the manufacture of steel billets and puddled bars from Canadian pig iron.

In the face of many difficulties the pig iron industry has continued to make creditable progress since 1887, and especially has this been the case within the past two years.

At the close of the calendar year 1891, the total production of pig iron in Canada was only 23,891 tons. Within 18 months, that is to say, at the close of the fiscal year 1892, the output had increased to about 51,000 tons for twelve months, a gain of upwards of 110 per cent. Sixty thousand tons will be a fair estimate of the output to the close of the present fiscal year.

The following will show the furnaces now in blast, with capacity and output:

LONDONDERRY IRON CO., LONDONDERRY, N.S.

Description of Plant, with Capacity.

Thirty-six thousand acres free hold land.
Ore Mines, yield from 50,000 to 70,000 gross tons.
Limestone Mines, yield from 12,000 to 15,000 gross tons.
Railways— about 12 miles, Company's own property.
Two Blast Furnaces—Capacity about 40,000 gross tons.
One Rolling Mill—Silent, capacity about 8,000 gross tons.
One Pipe Foundry—Silent, capacity about 5,000 gross tons.
Number of men employed—about 350.
Maximum number which has been employed when running all departments, full, 807.
Make of Pig Iron—1892—28,052 net tons.
Ore charged (partly bought)—64,430 net tons.
Coke charged—41,006 net tons.
Coal charged (all bought)—1,740 tons.
Flux—14,907 net tons.

The Londonderry Co. purchase from outside sources a very large proportion of their ore and coke. It is therefore altogether fair to credit them with the hands employed in the production of this material, in all some 450 men. This gives a total at the present time of 800 employees connected directly and indirectly with the operations of the Londonderry Co.

THE NEW GLASGOW IRON, COAL & RAILWAY CO., FERRONA, PICTOU CO., N. S.

Ore Mines—Limonite and Hematite, yielding 60,000 to 75,000 tons per annum.
Coal Mines.
Limestone Quarries.
Railways—The property of the Company, about 13 miles in length, connecting the furnace with the mines.
One Blast Furnace—65 ft. high, bosh 25 ft. 6 in., hearth 9 ft. 6 in. Capacity 100 tons per day.
Battery of Coppe kilns.
Number of men employed—425.
Iron produced in 1893, for nine months campaign—22,500 net tons.
Ore—about 50,000 net tons.
Coke—30,000 net tons.
Flux—13,000 net tons.

The Company purchase all the coal required for the operations of the furnace. Last year they bought, washed, and consumed 90,000 tons of coal. It is only fair to credit the industry with the men steadily employed in the fuel department, viz, 150 men and 50 boys, giving a total average of 625 employees in connection with the Ferrona Works.

Allied with this Company, and as an important consumer of its forge iron, is the

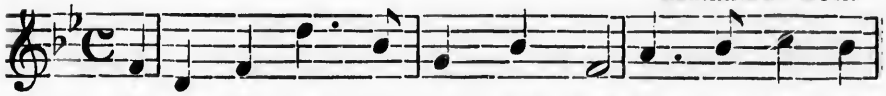
---

NOVA SCOTIA STEEL & FORGE CO., LTD., OF NEW GLASGOW, N.S.

The following description will show the great importance of this Steel Industry.

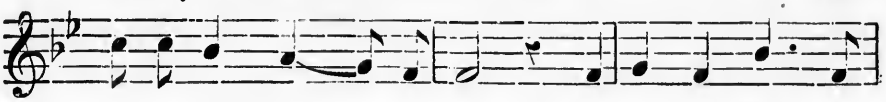
THE MAPLE LEAF FOR EVER.

ALEXANDER MUIR.

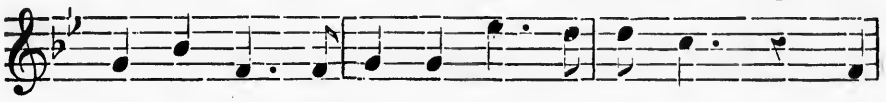


1. In days of yore, from Bri - tain's shore, Wolfe the daunt - less
2. At Queen - ston Heights and Lun - dy's Lane, Our brave fa - thers,
3. Our fair Do - min - ion now ex - tends From Cape Race to
4. On mer - ry Eng - land's far - famed land May kind Hea - ven

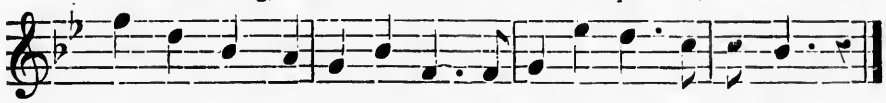
he - ro came, And plant - ed firm Bri - tan - nia's flag, On
side by side, For free - dom, homes, and loved ones dear, Firmly
Noot - ka Sound; May peace for e - ver be our lot, And
sweet - ly smile; God bless Old Scot - land e - ver - more, And



Can - a - da's fair do - main. Here may it wave, our
stood and no - bly died; And those dear rights which
plen - teous store a - bound; And may those ties of
Ire - land's Em - er - ald Isle! Then swell the song, both



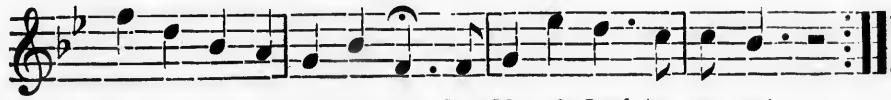
boast, our pride, And joined in love to - geth - er, The
they main-tained, We swear to yield them nev - er! Our
love be ours Which dis - cord can - not se - ver, And
loud and long, Till rocks and for - est qui - ver, God



This - tle, Sham-rock, Rose en-twine The Ma - ple Leaf for ev - er!
watch-word ev - er-more shall be, The Ma - ple Leaf for ev - er!
flour - ish green o'er Freedom's home, The Ma - ple Leaf for ev - er!
save our Queen, and Hea-ven bless The Ma - ple Leaf for ev - er!

CHORUS.

1. The Ma-ple Leaf, our em-blem dear, The Ma-ple Leaf for ev - er! God
2. The Ma-ple Leaf, our em-blem dear, The Ma-ple Leaf for ev - er! God
3. The Ma-ple Leaf, our em-blem dear, The Ma-ple Leaf for ev - er! And
4. The Ma-ple Leaf, our em blem dear, The Ma-ple Leaf for ev - er! God



save our Queen, and Hea-ven bless The Ma - ple Leaf for ev - er!
save our Queen, and Hea-ven bless The Ma - ple Leaf for ev - er!
flour - ish green o'er Freedom's home, The Ma - ple Leaf for ev - er!
save our Queen, and Hea-ven bless The Ma - ple Leaf for ev - er!

The plant consists of :—
Two Siemens Melting Furnaces, 20 tons capacity each.
Three gas heating furnaces.
Five reverberatory heating furnaces.
Twenty-six″ reversing cogging mills with train of live rolls.
Heavy vertical hot billet shears with live rolls.
One 20″ plate mill.
One 16″ bar mill.
One 12″ bar mill.
One 9″ guide mill.
Ten pairs Shears, forty tons and smaller.
One 5-ton steam hammer, with 15-ton hydraulic crane.
Four smaller steam hammers.

Machine shop 175 ft. x 75 ft. with 30-ton travelling crane commanding whole shop, equipped with 24″ slotter, six drills (one a 9-ft. radial, 5″ spindle), nine lathes, one of which will take in 50″ over carriage, and 8″ x 10″ in the gap, will take 37 ft. between centres, small shapers, etc., etc. Power is supplied by some fifty steam and ten hydraulic cylinders. Entire works are lighted by arc and incandescent light plant.

Output 100 tons of steel ingots per day, all of which is worked up into bars, sheets, axles and other forgings.

Over 97,000 axles of this company's make were supplied to Canadian railways.

This company employed in 1893 an average of 425 men at the works, and expended in wages to this staff $185,471.00. Aside from this they should be credited with the labor necessary to mine and raise the average quantity of coal required per day, in all one hundred men, giving a total of 550 men connected with the Nova Scotia Steel and Forge Co., Ltd.

The company consumed 37,000 tons of coal in 1893.

It may be mentioned also that they paid in 18[illegible] for freights, inwards and outwards, $86,667.61.

THE PICTOU CHARCOAL IRON CO., LTD., BRIDGEVILLE, N.S.

Ore Mines—Brown Hematite and Limonite in the immediate vicinity of the furnace.

Wood Supply—The company controls 8,500 acres of hard wood lands, yielding principally yellow birch, beech and maple. This land is situated fifteen miles from the furnace.

One Blast Furnace—55 ft. high, 11 ft. bosh, built of red brick. Capacity 5,000 tons charcoal iron per annum.

Charcoal Kilns—Nineteen beehive kilns, capacity fifty cords each.

This company has barely commenced operation. So far only 700 tons of iron have been produced. Working full blast, however, it will give employment to 300 men in the woods, mines, and at the furnace.

JOHN McDOUGALL & CO., DRUMMONDVILLE, QUE.

Ores—Bog ores secured within a radius of twelve miles of Drummondville.

Charcoal Fuel—Soft wood, principally balsam and spruce, secured in practically the same district as the ores.

Two Furnace Stacks—Both built of stone, 35 ft. high. Capacity about six tons per day each ; 200 men employed.

At present the whole of the output is used in the manufacture of car wheels at the company's works in Montreal. The campaign is therefore largely regulated by the requirements of the car wheel department.

THE CANADA IRON FURNACE CO., LTD., RADNOR FORGES, CHAMPLAIN, P.Q.

Ores—Bog and lake. The Company control 100,000 acres of ore bearing lands in the districts of St. Maurice, Three Rivers, Vaudreuil, Joliette, St. Ambrose de Kildare, Point du Lac, Gentilly and Beaconcour, including the important deposits of lake ores at Lac-a-la-Tortue and Lac-au-Sable, which the Company hold in fee simple. Also magnetic iron mines at Sherbrooke, St. Jerome, and other points in the Province of Quebec.

Wood Supply—Free hold and royalty rights on hard wood lands extending throughout the country north of Radnor Forges.

The supply of wood is practically inexhaustible. The Company's location at Grandes Piles securing to them practically the "Key" of the St. Maurice River, and the control of most valuable hard wood lands on either bank of the river for seven miles of the navigable waters of the St. Maurice. The wood is principally hard maple, birch and beech.

Charcoal Kilns—A battery of 11 kilns on the furnace property at Radnor Forges, capacity 55 cords each.

A battery of 14 kilns at Grandes Piles, capacity 55 cords each. Charcoal also made in pits in the Swedish manner.

Limestone Quarry—The company owns what is perhaps the most important limestone quarry in the Three Rivers district. This lies within 50 yards of the furnace.

Railways—A railway line from Piles Branch, C.P.Ry., to the furnace. This, together with switches, is three miles in extent, all the property of the Company.

Car Wheel Shop—Located at Three Rivers.

Furnace—Iron shell, height 40 ft., bosh 9 ft. diameter. Crucible and bosh from mantle down is encased and protected with a Russel Wheel & Foundry Co. water jacket. The furnace is complete with all modern accessories. Hot blast stove, Drummond pattern. Steam and water power. New Weimer blowing engine, also complete auxiliary plant, blowing engines, steam and force pumps ready for use at any moment should the permanent plant become disabled.

Capacity—40 tons per day of high class charcoal iron, specially adopted for the manufacture of chilled car wheels.

This iron stands an average breaking strain of 63,000 lbs. per square inch, the test being on standard bars 1 in. x 12.

During 1893 the Company produced 7,423 net tons of charcoal pig iron. They made all their own raw material, not alone for the production of the quantity of iron named, but also for sufficient stock to provide for a largely increased output during the present year, 1894.

The average number of men employed is 650, with about 400 horses.

During the winter months when the company require to cut all the hardwood necessary for the year's production of charcoal, and when they take delivery of a great deal of the ore made during the summer months, they often find it necessary to employ a staff of upwards of 860 men, with about 550 horses.

Of the large staff of men, at least three-quarters are drawn from the ranks of farmers and habitants, and the operations are carried on by them over a very large territory.

Politicians will do well to notice that each and every one of the Canadian blast furnaces are located in rural districts, and that in a very peculiar degree the pig iron industry is one closely identified with the interests of the farmers.

NOVA SCOTIA.

The coke furnaces of Nova Scotia draw a large proportion of their employees at mines and furnaces from the farming class. In many instances the farmers take work in the mines, while other members of their families look after their agricultural interests. The charcoal iron furnace especially may well be classed as a farmers' industry. For example, in the case of the Canada Iron Furnace Co. already cited, out of a staff of 850 men employed at the present time, 700 at least of the employees are farmers or habitants, who work for the Company during the winter months and in their slack seasons, between seed time and harvest. These men find that the arduous work of clearing their land is no longer unprofitable, as it has been in the past, but that on the contrary they are now able to derive a very good living from the earliest days of settlement by supplying wood to the charcoal kilns.

Another ready source of employment is the raising of ore on portions of their own and neighboring lands, which would otherwise be wholly unproductive.

The successful re-establishment of the charcoal iron industry at Radnor Forges has greatly improved the condition of the farmers of the historical Three Rivers district, Quebec. They now find steady and profitable employment on their own land at all seasons, a steady market for their farm products, and ample work for their horses.

During the present season the Canada Iron Furnace Co. are using in their camps and ore fields upwards of 500 horses, 80 per cent. of which are the property of the farmers.

This close identity of interest between the farmer and the manufacturer is also characteristic of the work done at Drummondville, in the province of Quebec and will no doubt prove equally true with regard to the operations of the Pictou Charcoal Iron Co. at Bridgeville, N.S.

It will be largely in the interest of the farmers of Ontario if the charcoal iron industry is allowed to grow and prosper. What has been possible in the case of Sweden is equally possible for the provinces of Ontario, where the raw material and the market lie side by side. In 1890 Sweden had in blast 154 charcoal iron furnaces, producing 456,102 metric tons, an industry of which that nation may well be proud. The utilization of the hard and soft woods of our forests, at present waste material, would be of incalculable benefit to the province of Ontario, and above all to the agriculturalists of this province.

Next to the farming class the railways of Canada would perhaps be the greatest gainers by the establishment of an iron industry. In the case of the government railway, the Intercolonial, it is safe to say that the combined operations of the Londonderry Iron Co., the New Glasgow Iron, Coal & Railway Co., and the Nova Scotia Steel & Forge Co., furnish one-fifth of all the freight business of the railway in question.

The Piles Branch of the Canadian Pacific Railway, on which the works of the Canada Iron Furnace Co. are located, is perhaps the best paying piece of line possessed by that great trans-continental road, and this is very largely due to the fact that every pound of raw material inwards to the furnace and finished product outwards to the market contributes to the revenue of the railway company.

It is quite plain that any policy that would serve to cripple these iron industries *will be severely felt* by the railways.

Perhaps the greatest difficulty that has stood in the way of the advancement of the Canadian iron industry up to the present time, has been the uncertainty of the tariff, and political cries of "Commercial Union," "Unrestricted Reciprocity," "Free Trade," and "Revenue Tariff," have served to frighten capitalists, so that Canadian iron masters have found it very difficult to obtain investors for the carrying forward of the work on a proper basis. When the difficulties are all considered it is remarkable that the industry has reached even its present stage.

PREMIERSHIP.
PUBLIC CONFIDENCE.
The Globe.
PROVINCIAL TREASURY.
AGRICULTURE.
CROWN LANDS
EDUCATION
TREASURER.
WEIGHED
KAHRS

The United States at the present time presents an example of what uncertainty regarding tariff changes will do. During the past six months business has been completely demoralized in the iron trade of the Republic by the fear of a possible change in the duties. This in face of the fact that both parties in Congress are known to be more or less protectionist in theory and practice, the difference being only one of degree, whereas in Canada politicians are most extreme in their views, and the battle against protection to native industries has been waged in and out of parliament during all the term that the so-called National Policy has been in existence.

With such a nucleus as the existing establishments afford, with unlimited supplies of raw material, and possessing the best of all markets—a home market—the Canadian iron industry cannot fail to expand rapidly and safely, probably as in the case of the United States much more rapidly than the population, if only the Government of Canada will establish confidence in the minds of capitalists by, in some manner, giving a degree of permanency to the present protective tariff. Minor details will from time to time require adjustment, but the broad principle of protection to an industry for which Nature has so eminently fitted the Dominion, must be endorsed by both Government and opposition of Federal and Local Parliaments, giving a fair period of time in which to secure a full development of the industry, so that it may meet, on something like equal terms, the opposition of its powerful competitors in the United States and Great Britain. Without this the industry will be restricted, and in time of depression such as at present, the iron masters of the United States will simply unload their bankrupt stocks into Canada, with the end that a healthy Canadian industry will be an utter impossibility.

It is a notable fact that during the past four years the increased outputs of the Canadian furnace has led to a decreased cost of production per ton of iron, and Canadian makers have now forced foreign agents to lower their prices fully $3.00 per ton from prices asked four years ago. A well maintained tariff for some years to come will have exactly the same tendency as it had in the United States, viz., to strengthen and expand the native industry to the point where Canadians can control the entire trade of the country, and yet sell to the consumer at a lower price than any foreign competitor can do in his own country.

LOCATION.

The question of a proper location of coke and charcoal furnaces will be settled by the natural fitness of each Province. Nova Scotia, possessing as she does a great wealth of mineral fuel, must continue for some time to come to produce the coke iron required by the country. It may be urged that she is far removed from her best market, viz., Ontario. However, Nova Scotia is in as good a position in this respect, and ought to be in regard to freight rates, as her present greatest competitors, viz., the furnaces of the Southern United States. Within the past two years Nova Scotia has made great progress in the erection of modern plants and improved appliances. She must continue on this course, for the time is past when iron can be successfully produced without improved appliances both in construction and modern methods of operation. The blast furnace must meet the consumer's wants, in quality of iron and technical knowledge and administrative ability must be joined together in Nova Scotia just as in the United States to secure the increased output, and high quality of iron which the times demand. Quebec and Ontario will afford a splendid field for the development of the charcoal iron industry, and this department will become more and more important as the forests of the neighboring Republic and Sweden are depleted. But Ontario now brings her iron made from cooking coal, from the Southern States. Cooking coal can be brought to our cities and towns from Pennsylvania, cheaper than iron from the above States.

A full and unbiassed investigation into all the facts concerning the successful

STOLE THE SPURIOUS ARTICLE.

Dalton MacCarthy (as Burglar Foster disappears through the window)—"Gosh! I got a scare that time; I thought the fellow was going to steal my genuine tariff reform, when all he wanted was that old bag of antique relics."

establishment of the iron industry in other countries, and of the circumstances attending the work already done in Canada, leads to the following conclusions :

First—That the Canadian iron industry has greater and more just claims to the good will and support of the Government and people of Canada than perhaps any other of the great industries of the country. In tobacco, sugar and cotton, splendid progress has been made, yet these industries, whilst of unquestionable benefit to the country, all contribute more or less to the labor of foreign countries, by using raw materials of foreign growth, for which nature has not fitted Canada. The iron industry is altogether different, being purely Canadian from raw material to finished product. Nature has richly endowed Canada with everything that goes to make success in this special line of enterprise. It rests with the Government and the people of the great province of Ontario to foster the industry to a perfect development.

Second—The Dominion and Ontario Parliaments must immediately adopt a course that will give confidence to investors, by demonstrating that the protective tariff and bounty will be well maintained for some time to come. The Government must rectify judiciously any errors that may have arisen, and must seek at least approximately *to grant a uniform protection to labor, in whatever branch of the industry it may be employed*, be it at the mines, furnace, rolling mills, iron foundry or machine shop.

Third—The Provincial Governments must take steps immediately to encourage by every reasonable concession the development of the iron industries now within their respective borders.

In Ontario every facility should be granted by the Provincial Governments in the way of privileges for the clearing of hard and soft woods from Crown lands. This course will not only strengthen and build up the charcoal iron industry, but will bring about a rapid settlement of Government lands.

Hitherto settlers have avoided the forest lands of the East, in favor of the more easily cultivated prairies of the West. Establish the Charcoal Iron Industry in Ontario, and the settlers will find a sure and profitable return for labor expended in clearing the wood, an inducement that will make the bushlands of these Provinces more attractive than the prairies of the West.

The section of the different provincial mining laws, providing for a proper expenditure in the development of mining locations within a given time, should be strictly enforced, and if possible the obligations made even more stringent than at present, so as to ensure a fair amount of work being done promptly, and prevent as much as possible the "locking up" of valuable mines by speculators.

WHERE THE OWNERS OF LOCATIONS ARE TOO POOR TO CARRY ON THE WORK OF DEVELOPMENT IN A PROPER MANNER,

then the Provincial Government should do so by some equitable arrangement with the owner. For this purpose the Provincial Legislature should vote in each year's supplies a reasonable sum of money. This would serve to bring about a business-like development of some very valuable mines that now lie dormant, and must in time bring a very profitable return to the Government by the settlement of Crown lands.

Further, it would tend to prove to capitalists that the ore supplies are all that they are claimed to be, and ample for all requirements.

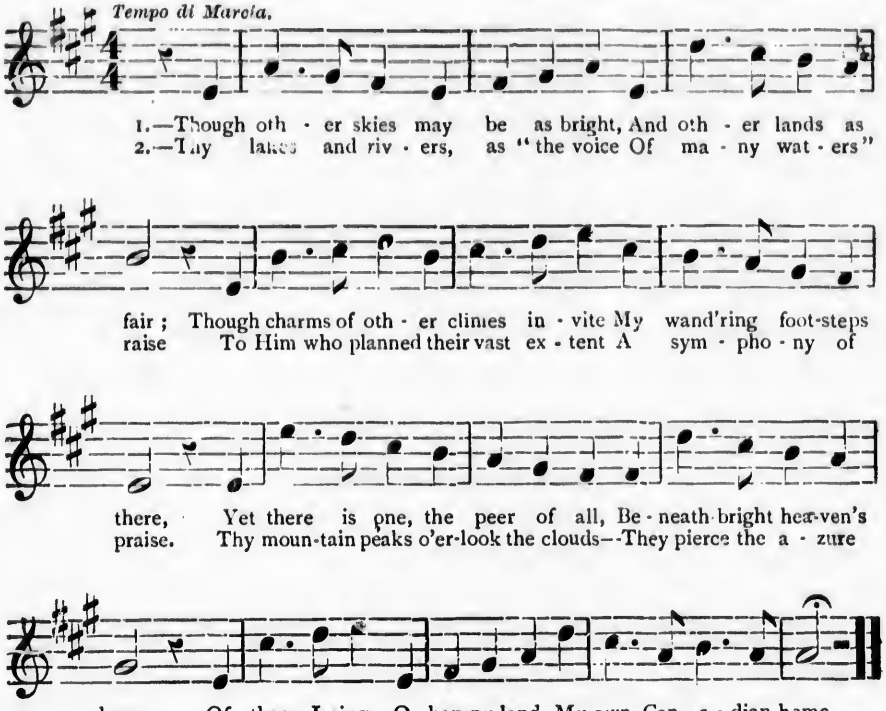
The Provincial Governments require to deal with the whole question in a business-like manner, strictly enforcing laws that will tend to an early development, but at the same time they must be heartily in accord with the Dominion Government in granting every legitimate encouragement and facility that will tend to build up so valuable an industry.

Fourth—Canadian bankers, capitalists, and men of affairs generally will do well to give the native industry more attention in the future than they have in the past. An industry that is peculiarly Canadian in every branch, drawing all its wealth from Canadian soil, is surely worthy of their legitimate support.

MY OWN CANADIAN HOME.

NATIONAL SONG.

Words by E. G. NELSON. Music by MORLEY MCLAUGHLIN.



3

A noble heritage is thine,
So grand and fair and free ;
A fertile land, where he who toils
Shall well rewarded be ;
And he who joys in nature's charms,
Exulting, here may roam
'Mid scenes of grandeur, which adorn
My own Canadian home.

4

Shall not the race that tread thy plains
Spurn all that would enslave?
Or they who battle with thy tides—
Shall not that race be brave?
Shall not Niagara's mighty voice
Inspire to actions high?
'Twere easy such a land to love,
Or for her glory die.

5

And doubt not should a foeman's hand
Be armed to strike at thee,
Thy trumpet call throughout the land
Need scarce repeated be!
As bravely as on Queenston Heights,
Or as in Lundy's Lane,
Thy sons will battle for thy rights
And freedom's cause maintain.

6

Did kindly heaven afford to me
The choice where I would dwell,
Fair Canada that choice should be,
The land I love so well.
I love thy hills and valleys wide,
Thy waters' flash and foam ;
May God in love o'er thee preside,
My own Canadian home!

Let the Government of Ontario and people go steadily onward, and by every energy and sympathy build up great Provincial industries and interests, neither doubting themselves nor their resources, but rather cultivating in every department of trade and commerce, and in the hearts of the people, that national pride in national products so characteristic of Englishmen and Americans. Following such a course Ontario must soon develop not only in her Iron Industry, but in every department of national life.

BUT MR. MOWAT'S GOVERNMENT WILL GRANT NO LEGISLATION that will encourage development of our mineral wealth or protect the farmers' interests, on the other hand the legal and other professions and capitalists loaning money can get all the encouragement required and be protected to any extent they demand. The suspension of Mineral Royalties is only an ambush for the Government to jump on investors after they have their works established and instead of encouragement to adventurous spirits will act as an intimidation and the only remedy the people have is to cast their votes against every reform candidate, therefore every elector leaving home to vote on election day should first consider his own interest and leave his personal friendship, if he has any, for Mowat candidates at home, that this Province of Ontario may make some progress and headway in the future.

Sir Oliver has drifted out of sight of the shores of Liberalism and has gone on to the distant reefs of Mowatism. The probabilities for June make it seem possible that his craft will leak and founder.

END THIS ANOMALY.

The several Australian colonies are permitted to discriminate in favor of each other in the matter of tariff rates, but they are not allowed to show like favors to this Dominion or the other great dependencies of the Empire outside the island continent.

Canada's freedom of action is also limited. She cannot admit British goods on a preferential basis without extending the same privilege to Germany and Belgium.

The Imperial legislation which restricts the commercial freedom of Australia should be amended, and the Imperial treaties that tie the hands of Canada ought to be abrogated. Every obstacle that stands in the way of closer trade relations between the various sections of the Empire should be removed.

We are familiar with the argument that is argued against this proposal—that Great Britain would lose more by abrogating treaties which give her certain advantages in foreign markets than she would gain by allowing colonies to discriminate in her favor. But that argument is only good as applied to the present. The future is all against it. Britain's foreign market is growing less year by year; her colonial market is growing greater, and the expansion in the latter would be enormously accelerated by a preferential trade policy within the Empire.

The mother country should, for business reasons, allow the colonies to give preferential treatment to her and to each other. National reasons even more strongly impel her to the same course. A commercial union of all Her Majesty's dominions would mean a political union that would be able to defy a world in arms.

The anomaly of a system under which fellow-citizens in one part of the Empire may not allow a preference in trade to fellow-citizens in another cannot be ended too soon.

IS THERE A FAMILY COMPACT?

Editor *World*: The public of Ontario are strongly impressed that the Mowat Government, which has existed so long in Ontario has been entirely too fond of

WHERE THE ROAD DIVIDES.

Sir Oliver :—" Gents, I say, gents, give a fellow half a chance. Why the deuce can't all three of us ride peacefully along the same old road together, same as we used to, in my rig, instead of getting out here to scrap!"

concentrating offices in its power. The old family compact which the old Reformers struggled against and finally overthrew through the aid of Lord Durham's report and the aid of Robert Baldwin in 1841 had the great evil of concentrating all offices in itself, from sheriffs, registrars, commissioners, even down to the lowest bailiffs in courts. It appointed all magistrates in the quarter sessions, county court judges and every officer in the division court, allowing no patronage to any other party but itself. The people thought it most intolerable, and, as is well known, some of them were forced to rise against the system in arms.

Nothing is so intolerable as this Cabinet aristocracy in a country. Now the question is, Have we too much family compactism in the Mowat Government? I mean among his close Liberal friends.

Even the control of all the division court officers, license commissioners, and especially registrars, sheriffs and inspectors has been taken possession of for many years by Mr. Mowat's Cabinet. The Patrons have lately made a great outcry against such a system, and Mr. Mowat has commenced to reform it. Another thing the people do not like in his Cabinet is the tendency to yield to Roman Catholic influences. Had Separate Schools and the Confederation Act been left as originally enacted by the North American Act it would have been bad enough. The people generally of all parties are opposed to Separate Schools in Ontario, because they tend to distract and divide the people.

The old family compact of 1837 and prior to it had universal power over all offices. Now look at our Ontario House of Assembly. There are 92 members, of which about 30 are in the Opposition. How many of the balance, say 60, in the House of Assembly are looking for office, expecting it, apart from his Cabinet of six members?

Look how many persons have been appointed from this House of Assembly during the past ten or fifteen years to public offices by the Mowat Government—the sheriffships, registrarships, inspectorships and other fat offices. Can such an Assembly be true and independent where a Cabinet has such a tendency to appoint to office, and is this not as bad as the old family compact in many respects? Ontario is full of county court judges who are supposed to be impartial gentlemen. Why was the power taken from them to appoint their bailiffs and clerks by Mr. Mowat? Would the judges not have been the best persons to have chosen their own officers? The old family compact used to say: We, the executive power of Toronto, know whom best to appoint throughout the country, and thus often controlled the House of Assembly. Is the same reason not resorted to at present by the six Cabinet ministers of Mr. Mowat? It must not be supposed that I approve of concentration of offices by the Ottawa Government, I condemn misgovernment everywhere as an independent politician. I believe it not well to leave any Cabinet too long in office. Look at the legislation of the past session and consider the dishonest manner in which Mr. Conmee was allowed to bring in the power to vote in Separate Schools. Why did not Mr. Mowat's Government bring that bill in if it was proper to do so? Consider the manner in which his favorites have been appointed to offices in Osgoode Hall and in the family of Sir Richard Cartwright. How many offices has Mr. John Winchester, of Osgoode Hall, held? and Mr. Scott, the Examiner of Titles? Have the inspectors of registry offices done their duty? If so, why are such things as this Peterboro abuse allowed? Now I am not for the present going to enlarge this letter.

CHARLES DURAND, Barrister.

One of the Baldwin reformers. A warrior under William Lyons McKenzie, in 1837.

Eighty years ago eight merino sheep were landed in Australia. These eight have since increased to 130,000,000. Our cousins at the Antipodes have an even greater source of wealth in their sheep runs than they possess in their gold mines.

A SURPLUS ON PAPER.

(After a Celebrated Painting by Sir John Millais, R.A.)

Treasurer Harcourt:—"That's a lovely surplus bubble and will please the people immensely if those arbitration fellows at Ottawa don't burst it too soon."

The imports and exports of Australia amount to $430,000,000 a year And this trade has been mainly built up within the last 50 years. Canada can not fail to derive advantages from closer trade relations with a colony that is developing so rapidly.

By using the highway across Canada the journey between England and Australia is shortened by a week. When this fact becomes generally known a stream of travel will set in from which the direct and indirect advantages to this country must be enormous.

Ceylon is one of Britain's innumerable colonies. It is almost too small to be seen on the map. And yet that one little island exports 90,000,000 pounds of tea per annum, or 14,000,000 pounds in excess of the entire import of the United States. What possibilities of development there are in an Inter-Imperial policy that will bring the various parts of the Empire into closer trade relations with each other.

The advantage to Great Britain of possessing an alternative route to her Eastern possessions via Canada was strikingly illustrated by Hon. Robert Reid yesterday, In the event of war the highway through the Mediterranean and Suez Canal would be in danger of attack at a dozen points by ships sent out from fortified harbors to which they could return for safety in the event of meeting a force too strong for them. That via Canada, on the other hand, would be absolutely safe so long as England controlled the open sea.

The net amount of premiums paid on the life insurance policies in Canada last year was $9,600,000. Of this total Canadian companies received $5,156,000 : American $2,403,000 and British $1,041,000.

Mr. Grundy, the deputy registrar of Peterborough has been duly dismissed. He told some unpalatable truths before the Public Accounts Committee, denied certain of them under pressure, and reiterated them all when later on he came to reflect. Mr. Grundy seems to have expected punishment from the first. He is, therefore, not in the slightest degree a surprised man. But what has the public to say on the matter? Here was a person employed in a public office. He was compelled to testify before the Public Accounts Committee. His compliance with the requirements of the committee, together with what arose out of it, has lost him his situation. What degree of truth can be expected from officers under examination in future if for telling the truth they are to be discharged? Possibly Sir Oliver will compel the registrar to take Mr. Grundy back, or step out himself.

DISTANCED BY AUSTRALIA.

Four years ago the colony of Victoria, Australia, did not export a pound of butter. Next year she expects to ship 10,000 tons to England.

Ontario
as well, bu
for my poc

EXPENSIVE, BUT USELESS.

Ontario :—"I'm inclined to be a trifle conservative, and I like ornaments as well, but for hard times like these your office is altogether too expensive for my pocket."

The population of Victoria is a little over and the area somewhat under one half that of Ontario; it is over five weeks' journey from London; we are less than two weeks. And yet that one colony sends treble the quantity of butter to England that is sent from the whole of Canada. Our butter makers should be ashamed of themselves. The different Australia Governments encourage the export of cheese and butter by a bounty. So should Ontario Government. Mowat party will do nothing.

In concluding a summary of the work done during the session of the Ontario Legislature, the Montreal Gazette says:—"Sir Oliver Mowat neither in the past, in connection with his financial administration, nor in the present, in connection with the issues of the hour, has done anything that a man of ordinary capacity could not accomplish; and there are evidences on the surface that the Ontario public recognizes the fact, and that he recognizes that the public recognizes his weakness." If drifting away from Liberal principles is an indication of weakness, Sir Oliver is about to face the country in a condition of political emaciation.

EVIDENTLY A MAN WITH A PULL.

It is reported that the Hon. C. F. Fraser is to succeed E. F. B. Johnston as inspector of Registry offices, and that the latter is to be given some other position.

Does this mean that Mr. Johnston is to be a permanent pensioner on the Province? That gentleman has been Deputy Attorney-General and is now Inspector of Registry Offices. How many more fat berths are the people of Ontario to be called upon to provide for him? One would suppose that his apparent inability to discover irregularities on the part of registrars that were afterwards brought out by a committee of the Legislature should be a bar rather than an aid to future preferment.

NEPOTISM AND SINECURES.

ANOTHER INTERESTING LETTER FROM DR. RYERSON.

The Question Historically Considered—How Sinecures Were Created in England—And How the People Dealt With Them—A Parallel to What is Done in Ontario—Will Punishment Follow Here as There?

To the Editor of *The Empire:*

Sir,—The merits and demerits of the fee or sinecure system have been pretty thoroughly discussed, except from an historical point of view. I propose to offer a few observations on that important phase of the question. The sinecure system dates from the reign of Charles II., when a desire to provide for noble families, impoverished after the civil war, and a general looseness of public morality permitted the easy entry of abuses. Offices were granted, or were continued to be held long after their usefulness had ceased. Office-holders were paid by fees so as to avoid the scrutiny of Parliament. These offices were available as rewards and menaces in public life, the faith-

Old Mother Hubbard, she went to the cupboard,
To get the poor dog a bone;
But when she got there, the cupboard was bare
And so the poor dog got none.

The Mother Hubbard of politics—Sir Hubbard Mowat: "Alas! my canine friend, there's nothing here for you, but I will make enquiries in the neighborhood, just keep sitting up."

ful were recompensed just as they are to-day in this Province, the wavering were held to their allegiance, the kickers were coerced a hundred years ago by Walpole, as they are to-day by Mowat. So great was the abuse of public office that ladies and clergymen held offices in the law courts and custom house, the work being done by deputies. Men drew large incomes without having the least idea of the work, or sometimes even of the location of the office. But a time of general exposure came when the South Sea bubble burst. Demands for trust funds revealed the length to which corruption had gone. The Earl of Macclesfield was impeached and fined in 1725 for misappropriation of chancery funds. A royal commission of enquiry was appointed in 1733, and others in 1780 and 1810. A hundred and sixty years later the Premier of Ontario is struggling to find out whether

THE SINECURE SYSTEM

is in the interest of the people or not. Salaries instead of fees in all cases was the burden of the commissions' reports.

A select committee of the House of Commons on sinecures recommended that it was advisable to suppress and regulate (1) offices having revenue without employment; (2) offices having revenue extremely disproportionate to employment; (3) offices of which the effective duties were principally or entirely performed by deputy; (4) offices the appointment to which was allowed to be sold. They reported that there were 242 sinecures at a cost of £297,095 annually as far as could be ascertained, all of which were swept away. The monstrous injustice of the sinecure fee system will best be understood if I give a few instances of its practical working. Its iniquity is just as great to-day as then. The bread-winners are sweated to feed the bread-eaters. The Rev. Thomas Thurlow held two sinecure law offices, which he vacated upon receiving a commutation allowance. It cost the country £477,960 to buy him off. Lord William Bentinck was clerk of the pipe, for which he received £1,000 a year, and gave his deputy £100 to do the work. Thus does history repeat itself.

HAVE WE NOT TWIN BROTHERS

to this sinecurist in our own country? Lord Camden was a teller of the Exchequer. In 1783 Parliament fixed the salary of $13,500 a year, the change to take place as vacancies occurred, but Lord Camden, the last of the tellers under the old system, volunteered, in 1812, a surrender of so much of his emoluments as exceeded $13,500 a year. When the office was abolished in 1834 Lord Camden was still a teller, and his contribution to the revenue had amounted to $1,222,000, being the amount in excess of the statutory payment.

The country had saved a million and a quarter by his voluntary act, and many millions by the action of Parliament. Sir William Rawson, in his work on the "Law and Custom of the Constitution," says: "From 1760, or earlier, our public service seems to have been a

PARADISE FOR SINECURISTS

and unscrupulous consumers of the public money. The civil service was paid partly by charges on the civil list, partly by fees received from those who had to do business with the public departments, or where the business was

SIR OLIVER AND THE GOBLINS.

Little Oliver, we'd warn ye that there's danger all around,
Yer support is very slender and ye stand on slippery ground,
Ye mus' keep yer old eyes open, and mind what yer about,
For the Goblins will get ye if ye don't watch out.

concerned with the public money, by percentages on the sums dealt with." Nothing was done except by deputy. "By the Acts passed in 1782-3 the abuses of the pay-office were corrected. At the same time began the abolition of the practice of paying public servants by fees extracted from the pockets of those who had to do business with the departments, or by percentages on money on its way from the exchequer to the people. The process of change in this respect seems to have been, first, the creation of a fee fund, consisting of the fees formerly paid to individuals and forming the fund out of which the salaries of the department should be paid; then by paying the fee fund itself into the general account of the exchequer, and making the salaries a fixed charge on the consolidated fund, or a charge annually appearing on the votes." The custom house, also, was a great resort of sinecurists. I find that in the year 1812 an Act was passed by which all patent offices and fees were abolished and

FIXED SALARIES ESTABLISHED.

The effect of these salutary changes was to relieve the public of fees to the amount of about £160,000 a year, besides various allowances made to officers. It has frequently been urged against the Reform party in this province that it is the party which does not reform, but that on occasion it stands for abuses which the Conservatives strive to do away with—the fee system, for instance. In reading Cassell's History of England I was very much struck with the similarity of action of the English Reformers (so-called) and our local fee-defenders. Page 418 reads:

"May 7, 1812—Mr. Creevy called the attention of the House to the tellerships of the exchequer. These offices were the most impudent of sinecures, the chief and almost only duties being the receipt of a percentage on all issues of money for the service of the state. And now came a very edifying proof of the truth and earnestness of Reformers. Numbers of them turned round and voted with the Government against the abolition of these scandalous offices. Thus the moneys voted for public purposes were still drained off by these side channels into private pockets; and the pockets of these loud blatant Reformers stood as eagerly open for such corruptions as those of the most corrupt placeman. Their cry was patriotism—their practice, nepotism."

This caustic criticism might have been written of the

LATTER DAY SAINTS OF ONTARIO,

so familiar does it sound, instead of "Reformers" of 80 years ago. Sir Oliver Mowat dismisses Elgin Myers and appoints his son to office. He preaches patriotism and practices nepotism just as the Grenvilles did. He holds the reins of power with a death-like grasp, and shows no desire of driving ahead, his "sole discoverable idea" is to stop still and make speeches from the box seat. In a former letter I referred briefly to the nepotism of Lord Grey, a Liberal, by the way. To show how such practices were and are regarded as acts of corruption, I will quote from Miss Martineau's History of England, page 125:

"The only approach to a doubt on this part of Lord Grey's character was caused by his profuse distribution of offices among his relatives; and he thought with great simplicity that he had disposed of this complaint in his

TORONTO'S POLITICAL COWBOY.

W.R.M.—"Good gracious, Ryerson, what do you intend to do with that outfit?"

Dr. R.—"Why, Bill, I'm just going to liven things up around the Parliament buildings. They'll find me a terror when I get properly loaded. I have one or two little additions to make to this suit, and then I'll be ready for business."

speech of this night by asking whether these many relations did not do their work well.....Could such a man overlook the truth that it is unfair to exclude others from office by filling departments with members of one family, and detrimental to the interests of the state to have in its departments an overruling cast of ideas and feelings? Did he not know how strong was the national response to Canning when he complained of the monopoly of government by 'a few great families'? And could such a man suppose that the complainants were thinking only of the salaries that his relations engrossed, and not of the honors, powers, occupations and dignities of office?"

Daniel O'Connell, in an address to the Reformers of England in 1834, thus spoke of Lord Grey's nepotism: "I published my opinion on this subject in 1825 and experience has confirmed the judgment then formed and promulgated respecting him. In fact, there appears to be but two leading ideas in his mind. The first regards the procuring for his family and relations the greatest possible quantity of the public spoil—I believe no Minister ever had the one twentieth, perhaps the one-fiftieth, part of the number of relations receiving public pay as had Lord Grey, nor so few deserving such payment. He and his family are, indeed, a cruel infliction on these countries. The second, but subordinate sentiment, is hostility to Ireland."

The local application of these extracts are sufficiently obvious. I now come to another great Liberal who

FELL FROM HIS HIGH PLACE

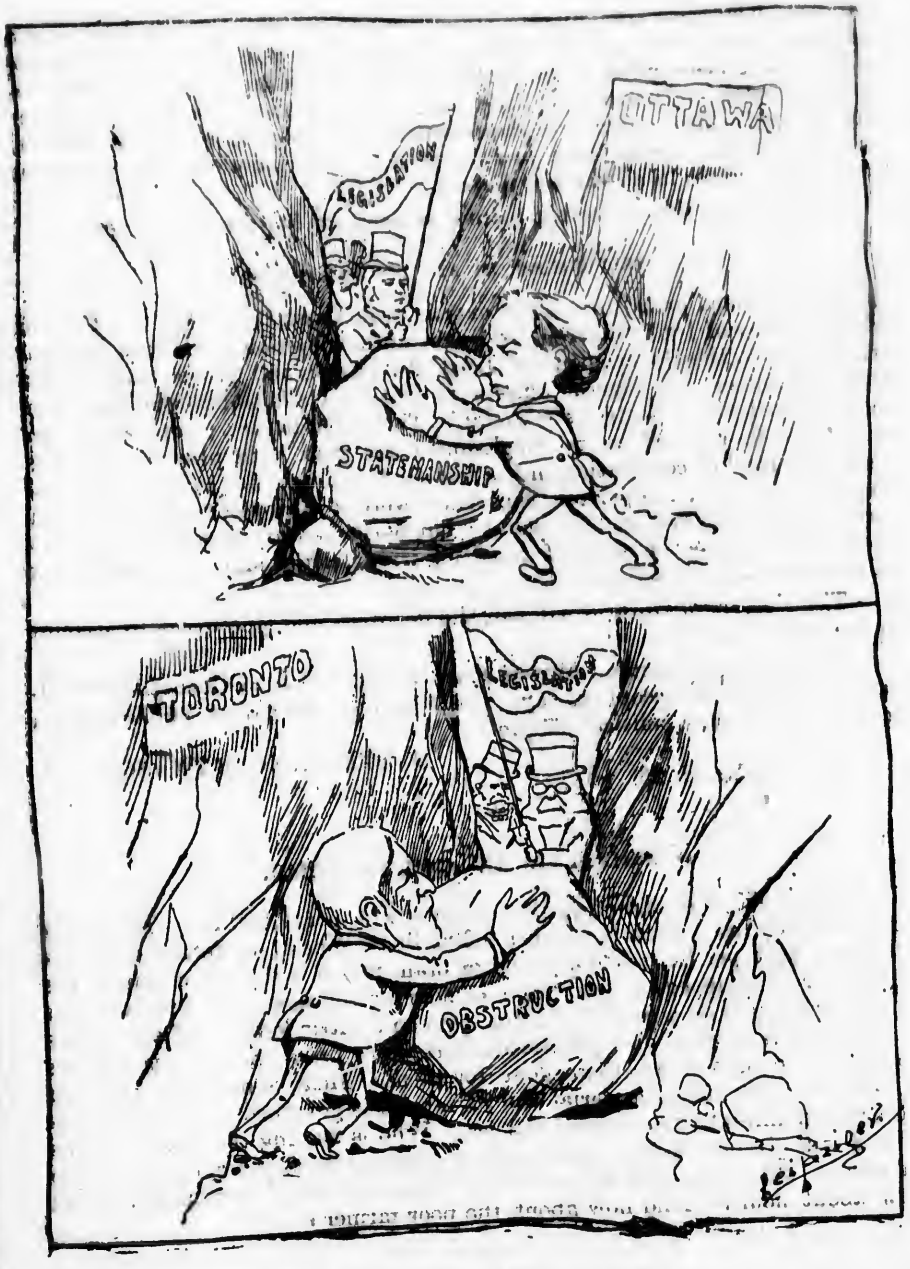
from a too great devotion to his family. I refer to Lord Chancellor Westbury. Justin McCarthy writes in his history of our own times, page 408: "He had been lax in his manner of using his patronage. In one case he had allowed an official of the House of Lords to retire and receive a retiring pension while a grave charge connected with his conduct in another public office was impending over him; and Lord Westbury had appointed his own son to the place thus vacated. In the other case, that of an appointment to the Lords' Bankruptcy Court, the authority of Lord Westbury had been made use of by a member of his family to sanction a very improper arrangement

Now mark what befel him: In the House of Commons, on July 3, 1865, Mr. Ward Hunt moved a vote of censure, saying that "the noble and learned Lord had not displayed that vigilance and anxiety for the public interest which they had a right to expect of him, and that his conduct had not been such as to satisfy the country or to justify his continuance in office, because he had been so lukewarm, careless and supine in not preventing the corruption which was going on around him." Two amendments were made to this motion to soften the Lord Chancellor's fall, yet so strongly did

PUBLIC OPINION SHOW ITSELF

in favor of absolute purity in such appointments and against nepotism that the Government was defeated upon the question by a vote of censure being passed upon the Lord Chancellor. It was carried by a majority of 14 in the face of Lord Palmerston's opposition, and a man of singular energy and ability driven from public life and high position. The public tendency was to compare him to Bacon, and to believe that an official, no matter how great, who is guilty of nepotism may well be capable of worse corruption. Lord Westbury resigned the next day after the vote of censure. He thus wrote to his

What
Legislature



ACCORDING TO THE "GLOBE."

What is statemanship at Ottawa becomes obstruction in the Ontario Legislature.

children, who were traveling in Italy: "You see the world is determined, and may justly condemn and denounce nepotism in public men. Unfortunately I have been induced to appoint a number of connections and relatives to small offices. The value is little compared with the value of two or three gifts made by Lord Ellenborough and others for their own sons and relatives, but the number seems large and there is a long parade of the numerous names and offices in all the newspapers."

I will close this somewhat painful subject, for it is painful to see

SELFISHNESS IN ALL ITS NAKEDNESS

in men esteemed great, by a short extract from Cassell's history: "The end of the session of 1865 was troubled by certain transactions which caused great tribulation to the Government of Lord Palmerston and proved fatal to the career of one of the highest officers of state. These transactions are commonly called the 'Edmunds Scandal.' Their details are complicated; the circumstances are such as no Englishmen can read with pleasure, and yet there is a kind of consolation in the fact that so much was made of them at the time, and that the persons concerned were so seriously visited. Irregularities will occur even in high places; but parliamentary government, whatever its faults, has the merit of resenting irregularities and of a readiness to call their authors to account."

The electors of Ontario will call the nepotists and sinecurists to account in the near future.

Will Attorney-General Mowat share the fate of Lord Chancellor Westbury? It is for the people to say. He stands at the bar of public opinion accused of the same political offence.

G. STERLING RYERSON.

Toronto, March 26.

A PROBLEM IN QUOTATIONS.

Wheat 55c. a bushel of 60 lbs. Shorts $14 per 2,000 lbs. Middlings $16 per 2,000 lbs. Bran is $14 per 2,000 lbs. Wheat, therefore, costs less than one cent per lb., while a pound of bran, which is the outer skin of the wheat kernel stripped of every atom of flour by the new roller process, costs nearly two-thirds of a cent. If this goes on a little longer millers will be able to sell cattlemen and poultice-makers their bran and give us citizens something to haul away their flour for them. There is no other trade in which the price of raw material and its fabrics is governed by such extraordinary and unintelligible inconsistencies. Who is making the money? The *World* will give any expert space for the explanation that would seem to be in order. Bran was $14 per ton when wheat was $1.25 per bushel. And how about flour? And how about the poor farmer?

The following is a list of Mowat members and their immediate family, most of whom have graduated as office-holders by attending the Legislature for a term or two:

THE LOYAL OPPOSITION COMING.

First M. P. P.—"Say, John, now that Mowat is agoin' to go what portfoliers d' you think we orter have?"

Second M. P. P.—"Waal, judgin' by our standin' over the rest on 'em you orter about be Provincial Treasurer an' me Attorney General. I tell you Bill can't find no better."

NAME.	MEMBER FOR.	OFFICE.
Awrey	S. Wentworth	Chicago Commission
Bettes	Muskoka	Sheriff
Badgerow	E. York	County Attorney
Christie	N. Wentworth	Prison Inspector
Clarke	N. Norfolk	Sheriff Thunder Bay
Clark	C. Wentworth	Clerk of House
Clark		Son, Asylum Officer, Kingston
Currie	Welland	Registrar of Lincoln
Chisholm	Peel	Registrar
Chisholm		Son-in-law, County Attorney
Chisholm		Son, Insurance Department
Cascaden	W. Elgin	Mimico Reformatory
Chamberlain	Dundas	Charities Inspector
Drury	E. Simcoe	Dehorning Commission
Gibbons	S. Huron	Sheriff
Gow	S. Wellington	Sheriff
Graham	E. Lambton	Bursar
Gillies	N. Bruce	Stipendiary Magistrate
Hodgins	W. Elgin	Master, Osgoode Hall
Hay	N. Perth	Registrar
Hagar	Prescott	Sheriff
Hawley	Lennox	Division Court
Lyon, R. A	Algoma	Registrar
Lyon, W. D	Halton	Stipendiary Magistrate
McKellar	Bothwell	Sheriff, Hamilton
McKim	N. Wellington	Sheriff
Massie	S. Wellington	Central Prison
McLaughlin	W. Durham	Registrar
Murray	N. Renfrew	Sheriff
McLaws	W. Elgin	Surrogate Clerk, etc
McKenzie	E. Middlesex	Asylum Storekeeper
Marter	S. Waterloo	Registrar
Morin	Welland	Registrar
McAndrew	S. Renfrew	Taxing Officer, Osgoode Hall
O'Donoghue	Ottawa	Bureau of Statistics
Paxton	N. Ontario	Sheriff
Perry	N. Oxford	Sheriff
Peck	N. Victoria	Stipendiary Magistrate
Phelps	W. Simcoe	Sheriff
Pacaud	N. Essex	License Inspector
Robinson	Kingston	Division Court
Ross, A. M	Huron	County Court Clerk, Toronto
Sinclair	N. Bruce	Registrar
Springer	N. Waterloo	Sheriff
Williams	Hamilton	Registrar
Widdifield	N. York	Sheriff

I am not in a position to give a list of all the members' relatives who have been quartered upon the public. Mr. O'Connor, member for South

Bruce, Mr. Speaker Ballantyne and others who have got office for their kindred could enlighten me if they would. Meanwhile I beg my friends throughout the province to send such information as they may have on that head. The list of members who have secured offices for themselves probably omits several cases. However that may be, is it not a nice commentary on the professions of high and unselfish patriotism which we hear from that side of the House?

Sir Oliver's followers can plead that he has set them a bad example. I venture to say that there never was a Premier in Canada who looked more carefully after his own household at the public expense. The following named relatives of his have been saddled upon the province:

1. Frederick Mowat, Sheriff of Toronto, net income from fees last year $8,416. More than the salary of the Premier of the Dominion or that of the Chief Justice of the Supreme Court of Canada.

2. Mowat, MacLennan, Downey & Co., are solicitors to Sheriff Mowat in his official capacity (fees).

3. J. F. Mowat, assistant accountant License Branch, Toronto (salary.)

4. Mr. Duff, stipendiary magistrate, Kingston (salary).

5. Mr. Fraser, clerk of the crown, etc., Kingston (fees).

6. Mr. Thomas Langton has figured for years as the recipient of large sums for extra legal work in the departments.

The list is probably incomplete, too; but even so, it speaks eloquently for Sir Oliver's thrifty care of his own. Mr. A. S. Hardy, the noisiest member of the cabinet on the subject of their unselfish devotion to the public welfare, is not far behind Sir Oliver in that regard. Here is a partial list of Mr. Hardy's operations:

1. Russell Hardy, storekeeper, London Asylum.

2. C. J. M. Hardy, clerk, Crown Lands Department.

3. H. R. Hardy, clerk, Crown Lands Department.

4. T. Botham, clerk, license and justice branch.

5. C. S. Jones, his law partner, appointed registrar Crown Lands Department, to make room in the Brantford law firm for one of Mr. Hardy's sons.

I repeat that this is only a partial list of Mr. Hardy's feats in nepotism. I may have a more complete one bye-and-bye.

Mr. A. M. Ross, the former Treasurer, appeared in the roll of members who have looked after themselves; but he also looked after his relations. One was appointed to an office in the Ontario Immigration Bureau at Liverpool, a second to the Public Works Department, a third to be physician at the London Asylum. Mr. Ross' own sinecure yielded him last year a net income from fees of $4,844. I have not had time to look into the case of other self-sacrificing patriots in the Cabinet.

Enough has been said, however, to show why the Patrons no less than the Conservative Opposition believe that if the cost of government is to be reduced the men now in office must first be driven out. They boast that there are no money scandals in their administration of affairs, because they have managed thus far to prevent any very bad ones from being uncovered; there are scandals which are worse than money scandals, and this wholesale exploitation of the public service for the benefit of members and members' relations, of Ministers and Ministers' relations is certainly one of them.

Ministers have carried things with too high a hand. With the Roman Catholic vote behind him to swing the balance in his favor at every election Sir Oliver has brought himself to believe that he owns the Province of Ontario, and that he and his colleagues and his followers and all their relations and friends have nothing to do but pick it as they would a bone. The people are rebelling against this greedy and unclean bureaucracy, and the end of it is in sight. The writing went up on the wall last Saturday.

G. STERLING RYERSON.

Toronto, Dec. 6.

DEVELOP OUR IRON INDUSTRIES.

To the Editor of *The Empire*.

Sir,—It was with great pleasure that I read, reread and read over again the great budget speech of our able Finance Minister, also that of the Hon. N. Clarke Wallace in *Empire* of the 30th ult. Why, sir, the present tariff must be pleasing to the great majority of Liberals, and even to the fiery and pugnacious Grit orators, who see in its statemanship that they envy to their opponents, and that is destined to further prolong their stay in the cold shades of Opposition, for on its foundation, are we destined, without doubt, to become that nation of forty millions population, that the Hon. Mr. Laurier prophesied in his latitudinarian speech at Quebec, and that within his own lifetime, should he be permitted to continue in this life the balance of man's allotted years. The people as a whole are well pleased. The manufacturers are in some respects cut, but in other ways fully compensated. The consumers will also benefit, for it is a very small portion of the population that are not in some way producers. And when all classes settle down to thinking over the Goverment's policy they will realize the great future in store for this young, but great and promising Canada of ours, and chances of success will every day appear. The question will doubtless be asked by those indifferent of thought or incapable of thinking, from what particular change is all this prosperity to come? Well, as the progress of man's physical system is necessarily slow, so is the progress of the political system of a country necessarily slow where its backbone is behind in growth, and as the iron industry is the recognized backbone of all civilized countries, so our Government have discovered a deficiency here, in our country's system, and have decided by the late changes to fertilize the growth of our backbone, and doubtless will further cultivate its growth, if the thousand and more branches of industry that spring from iron and live by its nutriment show the slightest appearance of decay. Herein lieth the marvellous success of Great Britain in wealth and industries, her maritime magnitude and glory, and principally brought about by Pitt, the Earl of Chatham, and William Pitt, commonly called Pitt the Younger, and vulgarly called by some historians the "Port Wine Pipe," because of the large quantities of port wine he had to take in his weakly youth. Eminent writers say he (Pitt) was the Minister who really first grasped the part which protected industry was to play in promoting the welfare of the world. Macaulay, who was a Radical free trader, says of William Pitt, who built the iron foundation of that glorious country, that he (Pitt) was the greatest master of the whole art of parliamentary Government that ever existed, and here is his policy on iron: Bar iron, duty per ton commenced at £2 16s. 2d., and was found insufficient for nation building and the destiny in view. It gradually rose to £6 10s. if imported in British ships, and £7 18s. 6d. if imported in foreign bottoms; and in 1787 he put 67s. 2d. per ton on pig iron, about $16 in Canadian money, and this increased to 130s. per ton, with all other grades of iron manufacture in proportion. His father, the Earl of Chatham, by Act of Parliament, prohibited and forbade the 13 colonies of America

TOO FAR GONE.

DOCTOR.—"Well nurse, I'm afraid you have made a fatal mistake. You have administered the wrong medicine; you might try what effect those powders will have, but I fear it is all over."

from manufacturing even a horseshoe or a hob nail, or anything else that would compete with home manufactures, the principal reason for all this being that the markets of England were so easily accessible by competitors by water. No point of England, it is said, is more than 13 miles from navigation of one kind or another. With us the case is quite different. The long haul by rail makes freights so high that smaller duties answer the same purpose of protection. Therefore our increased duty on scrap iron, together with the bounty on pig iron and puddled bar, and the unrevocable five-year limit, will give an incitement to the iron development that will start the building of great chimneys and tall smoke-stacks throughout the country. And the five year limit will cause steady growth, and keep down the tendency to over production, inasmuch as the last works to start in the said limit will still have five years in which the bounties can be earned. This was a very wise conception, and necessarily means a string of iron foundries and blast furnaces from the Atlantic to the Pacific, the prairie country excepted, and which means cheaper iron to the consumers than they have been getting. And if any likelihood of over-production in the east or west, many markets are easily accessible from the Pacific and Atlantic seaboard, and the iron in those provinces, being of a superior standard, and such abundance of coal, and five years of bounty drawing, ought to make them equal to their competitors, in outside markets. If the Ontario Government and the Reform party would cease trying to be dictators of the people, and, in like manner to the Dominion Government and the Conservative party, be, in the performance of their duty, expressing always and at all times the people's desires, they would show some tangible loyalty to the people's best wishes and the country's best interests. Capitalists will not invest a dollar in minerals as long as Sir Oliver continues to play the doubting Thomas about Ontario's suppos 1 wealth in iron and nickel, no more than they will put any trust in his bombast book-keeping, which says we have a surplus of six and a quarter mlllions. If they have any faith in themselves and their Bureau of Mines reports, there is nothing to hinder them now starting a nunber of charcoal furnaces through Ontario's iron range, and earning the Dominion bounty for a while, no more than there was to start the manufacture of binding twine at the Central prison, thereby showing by experiments what we only now have in theory. If the results be as we expect, capitalists will readily buy out their plants. Another way out of the difficulty is to guarantee money investment against loss, or give a heavy bounty on the first million tons produced. If there were only a will, many would be the ways of starting these much needed industries ; but the people are now saying, the Ontario Government do more sitting than progressive thinking. The next legislation wanted is an immigration policy, with equal vigor, that will fill up our vacant lands and give an increased consumption to our producers, and an increased revenue to further increase our public works ; bearing in mind that every prosperous settler up to a certain number is worth, to a young and hopeful country like ours, $1,000, and this money will be well spent in nation builning. For example, we have the United States' growth of population from 1854 to 1890, before us — 40,000,000 in thirty-six years—and we can go them better if we set about the work properly, for we have them to draw from, and now is the time to make a vigorous start, when unrest and discontent is rampant there. Europe must also be flooded with proselytizers. If the Dominion Government would take the views of the people on this matter, as they have done before rearranging their tariff, equal and satisfactory would be the results.

R. W. PRITTIE.

BREAKING THE WAY.

Young Mr. Hardy—"You take the lead till we get through the drifts."
Sir Oliver.—"I'll be happy to relieve you then."

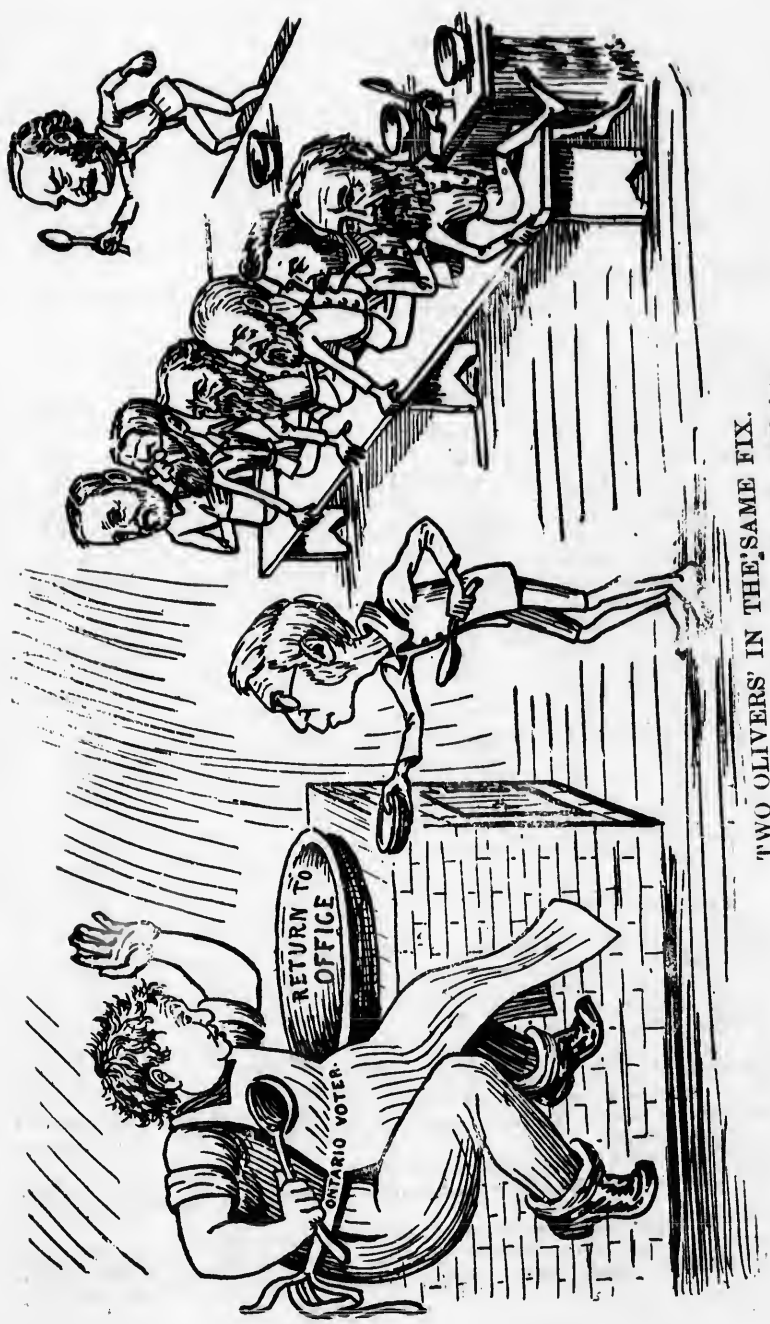
FINANCE.

The public debt of some of the principal foreign countries are given below.

PUBLIC DEBTS IN FOREIGN COUNTRIES.

Countries.	Year.	Public Debt. Amount.	Per Head.	Multiple of Revenue
		$	$ cts.	
Europe—				
Austria Hungary	1889	1,599,892,000	40 35	5·26
Belgium.....	1889	374,367,004	63 34	5·78
Denmark	1890	29,162,000	13 37	1·90
France.....	1890	6,160,387,266	146 22	10·61
German Empire	1890	302.156,000	6 14	1·12
Greece.....	1890	143,638,666	65 67	6·46
Italy	1890	2,349,154,000	75 91	7·53
Netherlands	1890	432,019,000	94 95	8·72
Norway.....	1890	31,190,250	15 60	2·29
Portugal.....	1889	571,364,635	121 35	13·74
Roumania	1891	173,506,400	32 28	6.89
Russia...	1889	2,740,477,085	29 80	6·53
Spain	1889	1,221,585,596	69 63	7·84
Sweden	1890	70,002,200	14 63	3·00
Switzerland	1891	13,840,800	4 74	1·03
Turkey	1887	522,203,530	56 30	7·09
Asia—				
China	1890	24,333,333	0 06	0·61
Japan	1890	301,260,180	7 89	3·72
Africa—				
Egypt	1889	516,249,211	75 72	10·81
America—				
Argentine Republic ..	1891	372,965,631	91 27	5.1 0
Brazil	1891	509,571,200	32 11	6·5
Chili	1890	90,000,000	35 61	1·9
Mexico	1890	110,576,000	9 52	3·0
Peru.....	1888	259,000,000	96 00	41·2
United States.....	1892	1,588.464,144	25 61	3·7
Uruguay	1891	106,000,000	134 90	6·7

The public debt of France is the largest in the world, and no two estimates agree as to its exact amount. The figures in the table are taken from the Statistical Abstract for Foreign Countries, 1890, published by the Imperial Government, while the latest estimate, made by a French writer, places the amount on 1st January, 1893, at $6,959,072,733. The debt of the German Empire is the federal debt only, exclusive of the debts of the several states, which amounted in 1890-1 to about $2,344,336,000. There are, however, considerable investments and a large amount of Government property held as a set-off both against the federal and state debts. Next to that of France, the public debt of the United Kingdom is the largest, followed by those of Russia, Italy, Austria-Hungary, Spain and British India, in the order named. The united debt of Germany amounts to $2,646,492,000 and would place that country fourth in the above list between Russia and Italy, while the united debt of Australasia, amounting to $892,882,466, places these colonies immediately following British India. In proportion to population, France, Uruguay and Portugal are the most heavily indebted countries in the above table, being, however, far exceeded by the Australasian colonies. In propor-



TWO OLIVERS' IN THE SAME FIX.

Little Oliver.—"Please sir, I want some more" Dickens' Oliver Twist.

tion to revenue, however, Peru would appear to be in almost a hopeless financial plight, as it requires more than forty years of its revenue to redeem its debt, while its unpaid interest alone amounts to more than $111,000,000. Portugal, France and Egypt would appear to have the next heaviest indebtedness in proportion to revenue. Of all countries Switzerland has about the lightest burden of debt, as only one year's revenue would be required to redeem it, while the value of its state property, or so-called "Federal Fortune," amounts to $7,268,673 more than its liabilities. The debt of the United States showed an increase of $41,502,446 on the 30th June, 1892, as compared with the same date in 1891. What may be called the net debt, that is, the debt less cash in the treasury, was $908,218,840 on 30th June, 1892, which would be at the rate of $15.61 per head, while the multiple of revenue would be 2·28.

CLOSING AND OPENING OF NAVIGATION AT MONTREAL AND TORONTO IN THE YEARS 1870 TO 1892, INCLUSIVE.

Year.	Montreal.		Toronto.	
	Closing.	Opening.	Closing.	Opening.
1870-71	December 18	April 8	December 24	March 11
1871-72	do 1	May 1	do 21	April 12
1872-73	do 8	April 25	do 10	do 14
1873-74	November 26	do 25	November 26	March 16
1874-75	December 13	May 3	December 18	April 16
1875-76	November 29	April 27	November 30	do 11
1876-77	December 10	do 17	December 18	March 25
1877-78	January 2,'78	March 30	do 19	do 9
1878-79	December 23	April 24	do 26	do 25
1879-80	do 19	do 17	do 19	February 13
1880-81	do 3	do 21	November 22	April 16
1881-82	January 2,'82	do 11	January 2,'82	February 19
1882-83	December 9	do 27	December 9	April 14
1883-84	do 16	do 22	do 21	do 8
1884-85	do 18	May 5	do 19	do 25
1885-86	do 7	April 24	January 8,'86	March 20
1886-87	do 4	May 1	December 4	April 12
1887-88	do 23	April 29	do 24	do 11
1888-89	do 14	do 14	do 20	March 15
1889-90	do 29	do 14	March 1,'90	do 15
1890-91	do 3	do 14	December 28	do 20
1891-92	do 17	do 13	January 5,'92	do 31
1892-93	February 2		February 2	do 20

The area of Canada is estimated to contain 3,456,383 square miles. It is the largest of all the British possessions, embracing considerably more than one-third of the whole Empire. The continent of Australia is the next largest, having an area of 3,030,771 square miles, and the area of Tasmania and New Zealand added to this makes the total area 3,161,493 square miles, or 294,890 square miles less than that of Canada. The total area of the British Empire, according to official figures, is, exclusive of protectorates, 9,040,497 square miles. The combined area, therefore, of Canada and the Australasian colonies, exclusive of New Guinea, comprises rather more than seventy per cent. of the whole Empire.

The area of the whole continent of Europe is about 3,661,360 square miles. It is therefore only about 204,980 square miles larger than the Dominion of Canada.

The area of Great Britain and Ireland is 120,849 square miles, so that Canada is nearly twenty-nine times as large as the whole of the United Kingdom. It is 430,783 square miles larger than the United States without Alaska.

Justice Mowat, firmly but sadly—"Prisoner, you are committed to stand your trial on June 26, next. Permit me to say in passing, that it will be before a jury of your fellow-countrymen, and that I fear the worst."

The area of the world, as estimated by Mr. E. G. Ravenstein, is 51,250,800 square miles, and its population 1,467,920,000. Canada, therefore, covers about one-fifteenth part of this surface, but contains only about one-three hundredth part of the estimated population.

Area and Population of Foreign Countries.

Country.	Estimated Area.	Population Estimated or Census.	Year.	Persons to the Square Mile.
AFRICA.	Sq. Miles.			
Liberia	14,300	1,068,000	....	75
Madagascar	228,500	3,500,000	....	15
Morocco	219,000	9,400,000	1889	43
South African Republic	113,642	*a*768,688	1892	7
Tunis	45,000	1,500,000	....	33
Zanzibar	625	75,000	....	120
Turkey in Africa	398,738	*a*1,300,000	1885	3
Turkey in Egypt	10,698	*a*6,817,265	1882	638
Total, Africa	1,030,563	24,428,953	...	24
AMERICA.				
Argentine Republic	1,125,086	4,086,492	1887	4
Bolivia	567,360	2,300,000	1892	4
Brazil	3,209,878	14,002,335	1888	4
Chili	293,970	2,817,552	1891	9
Colombia	504,773	3,878,600	1881	8
Costa Rica	37,000	*a*243,205	1892	7
Ecuador	120,000	1,271,861	....	11
Guatemala	46,800	*a*1,460,017	1880	27
Hayti	10,204	572,000	1887	56
Honduras	46,400	431,917	1889	9
Mexico	767,005	11,395,712	1890	15
Nicaragua	49,500	312,845	1889	6
Paraguay	98,000	*a*459,645	1887	5
Peru	463,747	*a*2,971,844	1876	6
Salvador	7,225	777,895	1891	108
San Domingo	18,045	610,000	1888	34
United States	*b*3,602,990	*a*62,622,250	1890	17
Uruguay	72,110	676,955	1889	9
Venzuela	593,943	*a*2,323,527	1891	4
Total America	11,634,036	113,214,652	....	10
OCEANIA.				
Hawaii	6,640	*a*89,990	1890	14
Total	31,684,649	1,028,358,903	....	32

a Census. *b* Including Alaska, 577,390 square miles.

The next table gives the revenues and expenditures in the United Kingdom and British possessions, principally in the year 1891, with the proportion of each per head of population.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REVENUES AND EXPENDITURES IN BRITISH POSSESSIONS.

County.	Year.	Revenue. Amount.	Revenue. Per Head.	Expenditure. Amount.	Expenditure. Per Head.
		$	$ cts.	$	$ cts.
Europe—					
United Kingdom..	1892	442,841,292	11 62	437,648,495	11 41
Gibraltar.....	1891	297,528	15 58	306,040	16 02
Malta	1891	1,338,942	8 11	1,371 767	8 31
Asia—					
India.....	1891	417,276,025	1 89	399,326,926	1 81
Ceylon	1891	6,374,267	2 12	5.832,169	1 94
Straits Settlement.	1891	2,967,995	5 78	3,567,251	6 95
Labnan	1891	33,366	5 70	22,644	3 87
Hong Kong	1891	2,053,431	9 27	2,077,545	9 38
Africa—					
Mauritius	1891	3,696,550	9 97	3,978,354	10 74
Natal...	1891	6,418,009	11 80	6,783,627	12 47
Cape of Good Hope	1891	20,116,863	13 17	20,969,308	13 73
St. Helena.....	1891	33,453	8 13	40,334	9 80
Lagos	1891	382,641	4 47	323,088	3 77
Gold Coast	1891	905,306	0 60	649,247	0 43
Sierra Leone	1891	437,362	6 84	379,430	6 07
Gambia	1891	151,051	10 59	134,791	9 45
America—					
Canada.....	1892	36,921,872	7 54	36,765,894	7 50
Newfoundland	1891	1,845,240	9 32	1,663,957	8 42
Bermuda.....	1891	163,184	10 79	155,874	10 31
Honduras	1891	255,636	8 12	220,314	7 00
British Guiana	1891	2,726,316	10 05	2,584,681	9 54
West Indies—					
Bahamas	1891	257,023	5 40	271,579	5 71
Turk's Island.....	1891	35,789	7 54	38,914	8 20
Jamaica.....	1891	3,789,260	5 93	3,805,163	5 95
Windward Islands.	1891	1,435,170	4 24	2,536,270	4 54
Leeward Islands .	1891	541.592	4 26	818,013	4 87
Trinidad	1891	2,375,999	11 88	2,386,720	11 93
Australasia—					
New South Wales.	1891	48,896,139	45 19	50,996,208	45 04
Victoria.....	1891	40,605,461	35 61	44,426,335	48 96
South Australia. .	1891	13,770,004	42 97	13,472,651	42 05
Western Australia	1891	2,421,994	48 65	2,120,026	42 59
Queensland..	1891	16,304,418	41 41	17,931,988	45 55
Tasmania.....	1891	4,298,230	29 31	4,144,254	28 26
New Zealand.....	1891	20,178,324	32 20	20,126,314	32 12
South Seas—					
Fiji.....	1891	346,750	2 76	330,057	2 63
Falkland Island ...	1891	56,215	31 42	64,736	36 19
Total		1,102,548,697	3 97	1,087,070,964	3 91

The revenue exceeded the expenditure in 18 out of the 36 countries and colonies named in the list, the total revenue having been $15,477,733 more than the expenditure. In proportion to population, both the revenues and expenditures of the Australasian colonies are very high, the chief explanation of which is that "a considerable revenue is derived from the usufruct of the "unsold lands, which is not generally the case elsewhere; the revenues also "are swelled by the large sums which are received annually from the aliena- "tion of Crown lands, and from the working of the State railways."* "The "practice of treating money derived from the sale of Crown lands as revenue "obtains in all the Australian colonies, and the money so raised forms one of

"the largest items of their annual income."‡ Canada in a few years should be deriving a large revenue from the sale of Dominion lands, if the practice of treating such moneys as revenue should be in force, but all the principal railways are in the hands of private companies. Both in India and Cape Colony, as well as in Australasia, the railways are principally owned by the Government, producing a corresponding difference in the amount of revenue.

* Victorian Year Book, 1884-5, p. 131. ‡ Wealth and Progress of New South Wales, 1887, p. 383.

The ordinary revenues and expenditures in some of the principal foreign countries, as nearly as they could be ascertained, are given in the following table:—

REVENUES AND EXPENDITURES IN FOREIGN COUNTRIES.

Countries.	Year.	Revenue.	Amount per Head.	Expenditure	Amount per Head.
		$	$ cts.	$	$ cts.
Europe—					
Austria-Hungary	1890	416,071,000	10 08	407,127,000	9 86
Belgium	1890	64,746,033	10 53	62,507,466	10 15
Denmark	1890	14,722,000	9 73	16,848,000	7 70
France	1890	588,543,431	15 34	630,085,946	16 43
German Empire	1890	293,557,333	5 94	270,265,466	5 46
Greece	1890	16,332,533	7 43	17,763,433	8 12
Italy	1890	350,672,000	11 63	361,672,533	11 99
Netherlands	1890	50,439,393	10 05	*67,600,598	14 83
Norway	1890	13,607,200	6 80	12,273,733	6 13
Portugal	1889	40,893,349	8 69	42,356,609	9 00
Roumania	1890	31,117,330	5 65	30,908,406	5 62
Russia	1890	459,257,000	5 62	427,186,000	5 28
Spain	1890	155,740,277	8 87	155,722,319	8 87
Sweden	1890	23,572,240	4 93	18,140.587	3 77
Switzerland	1890	13,164.333	4 51	12,974,000	4 44
Turkey	1889	90,033,333	3 25	104,146,666	3 76
Asia—					
Japan	1890	96,687,979	2 41	79,713,672	2 00
Africa—					
Egypt	1890	47,791,000	7 01	45,357,333	6 65
Tunis	1891	4,123,085	2 75	3,953,578	2 64
America—					
Argentine Confederation	1890	73,407,670	17 96	92,853,846	22 72
Brazil	1890	76,288,650	5 45	83,846,802	5 99
Mexico	1891	39,970,000	3 51	38,452,803	3 37
Peru	1890	6,271,600	2 11	5,911.992	2 00
United States	1892	425,868,260	6 80	415,963,806	6 64
Uruguay	1888	13,668,000	19 22	13,834,140	19 46

*Including expenditure on public works.

The federal revenue and expenditure only, of the German Empire, are given above, the united revenue and expenditure amounting in 1890-91 to about $713,638,000 and $886,647,000 respectively. France has the largest revenue and expenditure of any country in the world, followed by Russia, the United Kingdom, the United States and Austria-Hungary, in the order named. In proportion to population, the receipts and expenditure are largest in the Argentine Confederation and Uruguay.