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Vol. I.

Toronto, Canada, May, 1896.

No. 5.

Great Britain and Greater Britain.

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Of
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Of
Trade
Between
The
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Industrial Canada

VOLUME I

TORONTO, MAY, 1896.

NUMBER 5.

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CANADIAN INDUSTRIES.

ADDRESS OF PRESIDENT A. E. KEMP, OF THE CANADIAN MANUFACTURERS' ASSOCIATION.

THE address of Mr. A. E. Kemp, delivered before the twenty-first annual meeting of the Canadian Manufacturers' Association on the 29th of April, possesses many features of interest to all engaged in industrial pursuits.

It is not likely that everyone will agree with Mr. Kemp in the conclusions reached and it is somewhat unfortunate that to the utterances of the Canadian Manufacturers' Association there has more than once been given a strong political coloring. It may be difficult to separate politics and business where the contention is for a tariff advocated distinctively by one political party and opposed by the other, and yet there should be a line of demarcation.

A manufacturers' association should be one in which even those holding different views as to tariff regulations would find membership congenial. Tariff matters should be discussed from the strictly business standpoint, and in no case should an association allow itself to be so closely allied to a political party, that the fortunes of the association are wrapped up largely in the success of that party, giving an incentive to the adoption of means and influences to secure its election, that ought not to form part of the business of a business organization.

There is undoubtedly a wide field of service for an institution like the Canadian Manufacturers' Association, but it will only reach its full strength as a marked spirit of independence governs its management. This is a statement in which, we have reason to know, are embodied the sentiments of many manufacturers, who, whilst anxious for the prosperity of the Canadian Manufacturers' Association, are opposed to the methods and plans sometimes pursued, and the strong political bias given its programme. All Liberals are not opponents of the principle of protection to manufactures, though they are apt to be found out of harmony with an institution who avowedly oppose the interest of the party in which, on the whole, they

agree; nor are all Conservative business men in perfect accord with the practice of a protective tariff. There should be a common meeting ground for business men holding diverse views where they could meet and discuss questions in the general interests of business.

Without reprinting the whole of Mr. Kemp's able address, we may draw attention to several of its features. Whatever may be the opinion of business men as to the value of protection it must be agreed that the reference of the president of the Canadian Manufacturers' Association to the growth of

THE BICYCLE INDUSTRY IN CANADA

as a result of the tariff, was particularly happy. Mr. Kemp pointed out that without a protective tariff on bicycles it is doubtful if the industry would ever have gained a solid foothold here. Speaking of this industry he said: "Manufacturers in the United States who had formerly exported bicycles into Canada have been induced to establish factories here. The theory that manufactured goods cost the consumer more in this country on account of the tariff, or that an equivalent of the duty levied on the foreign article went into the pockets of Canadian manufacturers when the article is produced here, is exploded. With regard to bicycles, the consumer not only benefits by having them manufactured in our midst, but the industry is of untold benefit to our



MR. A. E. KEMP

work people. Hundreds of hands are obtaining regular employment in these bicycle works who would otherwise be idle or forced to leave the country. Within the past year, in Toronto alone, no less than four large bicycle factories have been erected, and in many other places throughout the country this industry has developed with equal vigour.

"Of the several bicycle works that have been established in this country by Americans, perhaps one of the most important is that of Messrs. H. A. Lozier and Company, who came amongst us from Toledo, Ohio. The Globe states that in this establishment are employed four hundred hands, and that the plant and machinery cost more than \$200,000. I am informed from another source that these very Americans whom we so gladly welcome have been more Canadian

than many Canadians. In supplying themselves with machinery they kept several of our machinery manufacturers employed almost exclusively upon their work for quite a term. As they were to sell their product to Canadians, they adopted the principle of having every machine possible for their use of Canadian make. Machine shops which were not in a position to supply, and had never before made such machines as were required, were supplied with all necessary drawings.

"Messrs. Lozier evidently adopted the true American principle in establishing their factory in Canada. I was glad to learn by the article in the *Globe* that the representative of that journal saw with his own eyes that a bicycle was actually made in the factory referred to, from "start to finish," a fact of which the same paper was very sceptical about a year ago. The establishment of this factory, like that of all others in our midst, has been, and is, a great boon to the community, and I direct those who may desire to form an unprejudiced opinion on the workings of the National Policy to visit the homes of the men to whom have been given steady employment in these factories, and enquire of them if they desire such legislation as will in effect close them up and transfer the business elsewhere."

CANADA'S PROSPERITY.

Illustrating what Mr. Kemp believed to be evidence of the prosperity of the Dominion, even in a period of depression, the following reference to financial and trade matters was made:—

"The savings of our people have greatly increased since 1878. The deposits in our chartered banks in 1878 were \$70,856,253, and in January, 1896, they had increased to \$190,493,856. The great increase in the amount of life insurance in force is also an indication of thrift. In 1878 the total amount of life insurance was \$84,751,937, while in 1895 it had increased to the enormous sum of \$319,781,939.

"The capital invested in industrial establishments in 1881 was \$164,957,423; in 1891, \$354,620,750. The number of employees, also increased proportionately, while the wages paid out nearly doubled, being in 1891, \$100,663,630.

"The total value of output of our industrial establishments in 1891 was \$476,258,886. There were then 776 establishments, whose output was over \$100,000 annually. Omitting establishments whose annual output was under \$2,000, the output of all others was \$444,003,694 in 1891, while by far the greatest increase between 1881 and 1891 was by establishments whose output was valued at over \$50,000 annually.

"Our foreign trade forms but a small proportion of our commerce. The best customers for both farmer and manufacturer are the Canadian people themselves who consume by far the greater portion of all the country produces. Notwithstanding our great inter-provincial trade, and the large quantity of goods we manufacture, which replaces the foreign product, our

imports have increased from \$93,081,787 in 1878, to \$123,474,940 in 1894, and our exports have increased from \$79,323,667 to \$117,524,949 in the same period. In making these comparisons we must not lose sight of the fact of the great depreciation in values of all commodities within the periods named, so that all these figures relating to 1894 would really be greatly increased, if values were equal to those in effect in 1878. A matter in this connection which will be of interest to us, is the fact that, according to recent reports, our exports for the first quarter of this year to Great Britain increased ninety per cent.

"The tonnage of sea-going and inland vessels arriving at and departing from Canadian ports, exclusive of coasting vessels, has increased in round numbers from twelve millions of tons in 1878 to twenty millions of tons in 1894. But the greatest indication of the importance of our inter-provincial trade is found in the traffic of our railways. In 1878 our railways carried nearly eight million tons of freight, and earned \$20,500,000. In 1894, the tonnage was three times greater, and the earnings nearly \$50,000,000, while the working expenses, number of passengers carried and miles of roads in operation, more than doubled in the same period.

"The increase in our postal facilities also emphasizes the importance of the increase in our commerce since 1878. In that year the letters and postal cards mailed were 50,445,000 pieces, while in 1894 the number had increased to 132,097,200 pieces.

"Fire insurance in force in 1878 was \$409,899,701, and in 1894 \$836,067,202. To the latter amount should be added the insurance carried by many large concerns in mutual companies which make no return to the Government.

"In 1881 we imported and manufactured \$401,287,672 worth of merchandise, and in 1891 \$589,544,010 worth, showing an increased consumption in 1891 over 1881 of \$188,256,338. In 1891 our own manufactured products, which we consumed, exceeded our imports in the proportion of four to one."

THE POLITICAL NATIONAL HYMN.

My country, 'tis of thee—
Sweet land! Officially
Of thee I sing,
Land where my fathers ran,
Land of the voting man,
From every clique and clan
Let three cheers ring!
My native country, thee—
Land where they vote for me—
Thy name I know;
Crossroads and moonshine stills;
Vote, and I'll foot the bills;
In, boys, I go!—Atlanta Constitution.

If the above pert little parody upon America's National Anthem be applicable to the political situation across the border, in an equally strong degree the words hit the nail on the head as regards Canadian wire pulling and intrigue among her politicians. In this connection the words of our National Anthem, "Confound their politics, frustrate their knavish tricks" may be taken as read with a strong accent on the last syllable of the first word—thus, con-found their politics.

THE SOO SHIP CANAL.

ONE OF CANADA'S GREATEST ENGINEERING TRIUMPHS.

IN an age that has been marked by the completion of a ship canal of the size and character of the Manchester ship canal, and within which period has been projected the great Nicaragua Canal, Canadians have reason to be more than gratified at the triumph in engineering skill accomplished in the building of the great canal at the Canadian Soo.

Important advantage has centered around Sault Ste. Marie in the great water power, second only to that of Niagara Falls, and which in the establishment of extensive pulp works, as well as other industries, is already playing an important part in the prosperity of that district.

It would be interesting to enter into an historical review of the district, now familiarly known as the Soo, but the purpose of the present article is to deal more directly with the Soo as the possessor of a great engineering triumph.

A canal was built across St. Mary's Island as early as 1798 by one of the Northwest fur companies. Record says that this canal was 300 feet long and 45 feet wide, that the lock raised the water 9 feet, or one-half the total fall at the Rapids, so that the remaining height must have been overcome against the current. Nearly a

century was passed over, or to be exact, 96 years, between the building of the primitive Soo canal and the commencement of the present canal, now capable of the transaction of so great business.

The total length of the new canal across St. Mary's Island is 3,500 feet and the dredged approaches under water on the two ends are about 18,000 feet long, with a depth of water of 21 feet. The essential feature of the work is, of course, the lock by which the 18 foot fall of the St. Mary's is overcome. This lock is built of masonry and is 900 feet long between quoin posts and 60 feet wide, with a depth of water of $20\frac{1}{4}$ feet on sills at low water. The height of the top of the walls above the floor of the lock chambers is $43\frac{3}{4}$ feet.

There are five sets of gates, two at the upper or west end, and three at the lower end, that is, a lock

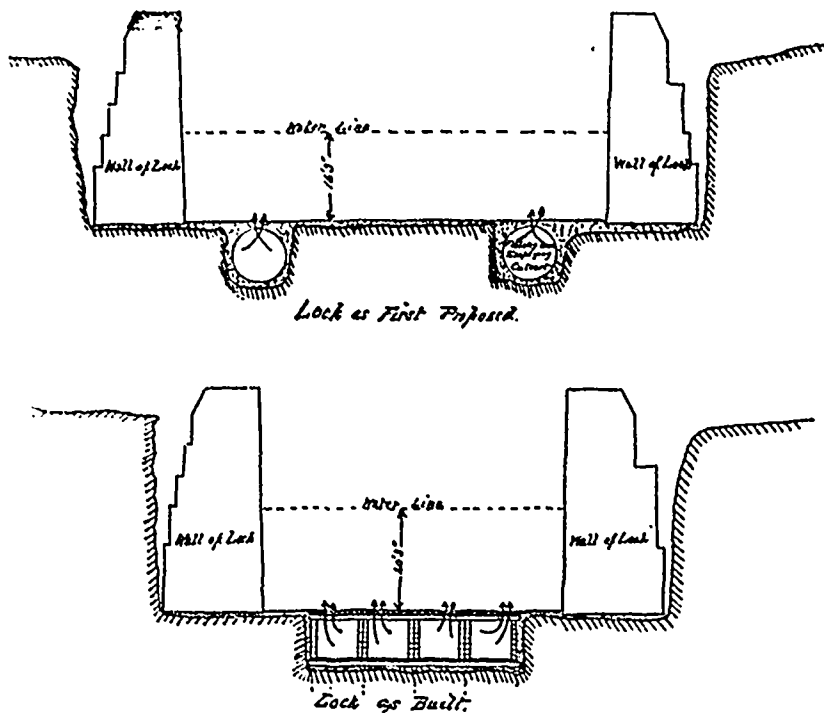
and guard gate at each end and an extra or auxiliary lock gate at the lower end for immediate use in case the lower main gate should get injured. The sets of these gates (the lower main and auxiliary) are $44\frac{1}{2}$ feet in height by 37 feet in width, weighing about 87 tons per leaf. The guard gates are, of course, to be used only when the lock chamber is being pumped out for examination or repairs. Water is admitted to the lock chamber by four 8×8 feet culverts, extending under the breast wall and underneath the floor and having openings at the tops. The inlets and outlets of these culverts are closed by butterfly valves $10\frac{1}{2} \times 8$ feet area, constructed of steel. Both the valves and gates are operated by electric power.

In all there are six gate machines, one for each leaf of the upper lock gate, lower lock gate and auxiliary gate. A one story wooden motor house covers each of the gate machines and its connecting motor.

With this machinery, from actual practice, the time required to pass a vessel through the lock going up stream is, after the vessel has taken her place in the chamber, 50 seconds for closing the lower gates, plus 50 seconds for opening the valves, plus 7 minutes for filling the lock, plus 50 seconds for opening the upper gates, or $9\frac{1}{2}$ min-

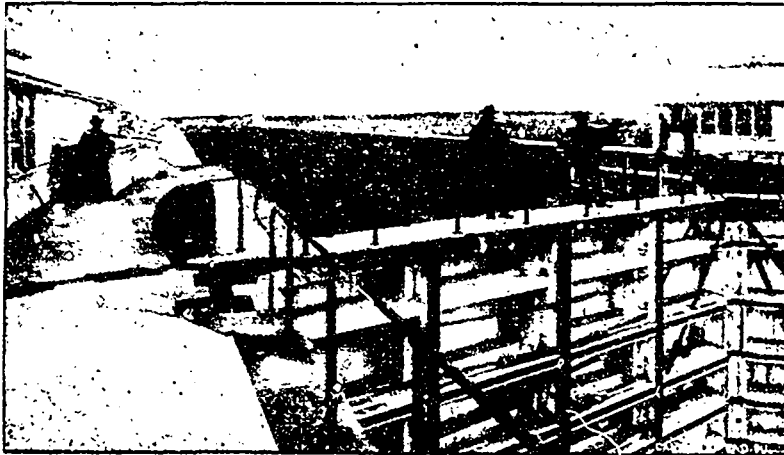
utes altogether. As the lock can be emptied in 5 minutes a vessel can be locked down in $7\frac{1}{2}$ minutes.

One feature of the operation of the canal is unique in this, that it is the first case where electric power has been used for operating the gates and valves of canal locks. For both the old 1881 lock and the new 1800 feet, hydraulic machinery is used. Mr. James B. Spence, chief draftsman of the Canadian department of railways and canals and to whom the technical press are largely indebted for the correct information that has been furnished as to the construction and operations of the Canadian Soo canal, has given the following as the reason for adopting electric as preferred to hydraulic power: "As regards economy, I think the difference between electric and hydraulic power will be very trifling, and here the point of economy was not taken into consideration. One of the main objects of using electricity was to overcome



the great trouble caused by frost when hydraulic machinery is used. During the closing weeks of navigation the cold is so great that oil has to be used in the hydraulic engines placed on the lock walls, and even then the cold causes the oil to thicken and makes the action of the engines slow and tedious. Of course, frost would not have interfered with hydraulic valve engines placed at the bottom of the lock, and in this case eight engines would have been required, while only four screw power engines are needed with the machinery as designed. These considerations seemed to make it advisable to use electric power throughout, and I have every reason to think that everything will operate successfully when we open for navigation," as has since proven in practice.

The 45 in. H. P. turbines, equalling a combined power of 310 Horse Power, supply the power for operating the generators and pumps. One turbine will be used for running the generators, the other for running the arc light dynamo and general shop work, but when it is required to pump out the lock, the two wheels can be coupled and used to operate the centrifugal pumps. There are two or three pumps, and they have a combined capacity of 32,000 gallons per minute. The two pumps will lay the lock chamber dry in between 6 and 7 hours.



THE CANADIAN LOCK

It should be noted also that near the upper end of the supply pipe there is a 6 feet 8 inch valve operated horizontally by two Tobin bronze screws; also two five feet valves are placed in the supply pipe immediately above the power house, permitting of either the whole of the pipes or of either or both turbines being laid dry when necessary. There is also an auxiliary 13 inch turbine for driving the incandescent lighting dynamos independently.

The current for power purposes is supplied by two 45 K.W. 500 volt Edison standard bi-polar dynamos, either of which is of sufficient capacity for operating under normal conditions.

The lighting plant consists of a No 7 wood arc dynamo, having a capacity of 40 2,000 C.P. lamps, and a 3 K.W. Edison bi polar incandescent machine for lighting power house and repair shops.

The switch board is a beautiful piece of work, and is a great credit to the manufacturers. These are supported by a heavy oak frame of ornamental design. The centre panel carries the instruments and control-

ling apparatus for the power generators, while on the right is the arc machine panel and on the left that for the incandescent machine.

Recognizing the well-known fact that by using the ordinary electric regulator the generator has to be worked at its full capacity, therefore wearing out the machinery unnecessarily, to avoid this Mr. Spence saw, that by giving the large wheel sufficient work, equal to about three-fourths its power when running the generator, the amount of current when taken off was but a fraction and almost imperceptible. Therefore he decided to try a system to meet these requirements, and as the end of the water wheel shaft projects over the large wheel in which two large centrifugal pumps are placed, he arranged by placing a mitre wheel on the projecting shaft supported by bridge, and driving a horizontal mitre wheel placed on an upright shaft which extends deep in the well and firmly secured in step. Then on this shaft is placed the propellor wheels of a size to meet the power required, one facing up and

the other down, which it is expected will cause no undue strain either up or downwards, and by a tip coupling at the horizontal mitre wheel, and when the regulator is not required, such as when running the large centrifugal pumps, the horizontal mitre wheels can be uncoupled. By this arrangement

it is considered that the object will be accomplished.

The electric plant was furnished by the Canadian General Electric Co. of Toronto and Peterboro, under detailed specifications and designs drawn up by the government electrician, Mr. D. Bryce Scott. The contractors for the lock and canal, also the lower entrance under water, including the crib work which form the wharf piers, were Hugh Ryan & Co., Toronto, Mr. M. J. Haney, one of the members of the firm being superintendent in charge of the work during construction, and Wm. Birmingham was engineer for the contractors. The upper entrance submarine work was constructed by Messrs. Allan & Fleming, of Ottawa. The locks were built and placed by Roger Miller, Ingersoll, and the contractors for the turbines were Wm. Kennedy & Sons, Owen Sound, Ont. The contract for the gate and valve machines and all pulleys was executed according to departmental detail drawings by the Canadian Locomotive and Engine Co., of Kingston, Ont.

CANADA'S FISHERY INDUSTRY.

IN British Columbia and the Maritime Provinces are centred mainly Canada's fishery interests. The fame of these provinces by the sea is due largely to their fisheries.

Mr. F. M. Black, from whose sketch we have previously quoted, has said: "While it was as a gold-yielding country that British Columbia first attained prominence, it is to a large extent to its fisheries that it owes world-wide advertisement, since the products of its waters, whether tinned, dried or frozen, have found their way into all quarters of the globe. Probably its fisheries are the richest in the world, and the peculiarly sheltered nature of its coast must be recognized as serving to greatly minimize the danger of a usually precarious calling."

The fish caught, Mr. Taylor tells us, include salmon, halibut, cod, herring, oolachans (peculiar to the northern coast), and others. Salmon canning as an industry has assumed extensive proportions, and rests on a secure and profitable basis. Each year, with unfailing regularity, shoals of the fish visit the inlets and rivers of the coast in such numbers that, by those unacquainted with facts, statements on the subject are often received with incredulity. In the case of the Fraser river an abnormally large "run" takes place every fourth year. It is on this river that the majority of the canneries are situated and on it that operations were commenced in 1876, when two canneries "put up" a pack of 9,847 cases. Next year the number of canneries had doubled, and the pack increased to 67,387 cases. For the fifteen years ending with 1890 the total pack was 2,572,000 cases.

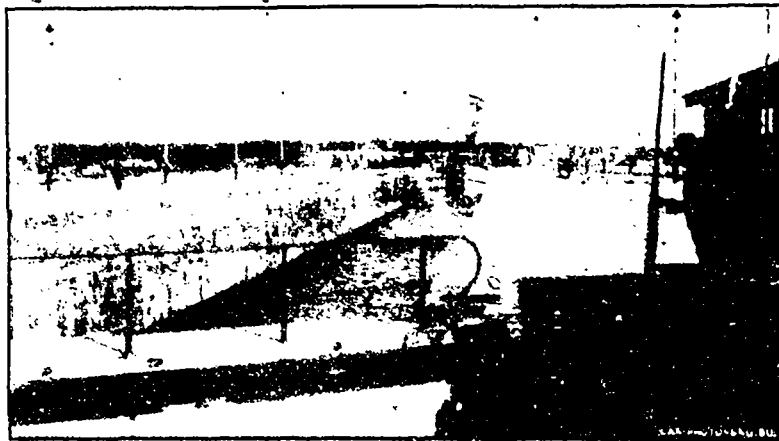
Since then the figures have been:

Year	No. of Cases
1891.....	315,177
1892.....	228,470
1893.....	590,229
1894.....	494,369

One of the phenomenal runs took place in 1893, and the pack for that year is the largest on record being valued at \$3,150,609, the average value for the ten previous years being \$1,578,417. In 1894, 51 canneries were in operation, of which 30 were on the Fraser, and four more were in course of construction for the season of 1895. As the trade is almost entirely an export one, the profit of the industry to the province is apparent.

With the exception of halibut no fish has yet been caught for other than the home market. During the winter of 1894-95, however, several companies were incorporated with the object of supplying the eastern markets with this fish, at a time when it could not be obtained on the Atlantic coast, and the very success attending such enterprise has proved likely to defeat itself. Halibut were caught in such abundance that the supply exceeded the demand, and one company, at least, closed the season in financial difficulties. On one trip a vessel obtained 120,000 lbs., and in six trips 520,000 lbs.—evidences of the richness of the fisheries. Increasing attention has been paid of late to facilities for freezing, drying and canning different varieties of fish, and it is not improbable that in the near future still more attention will be given to the development of this valuable resource.

In Nova Scotia the lobster packing industry and codfish have run into large figures. In 1894 codfish to the value of \$2,450,000 was marketed, while the value of lobsters in the same year is placed at \$1,294,000, or more than one-half of what had previously been looked upon as Nova Scotia's chief source of wealth. These two fish therefore divide the honor of affording more than one half of the fish production of the province. The lobster season, says the Maritime



STEAMER ENTERING CANADIAN LOCK AT THE SOO.

Merchant, may be now considered fairly opened and advices from many points indicate that the industry will be carried on with energy and intelligence. Foreign markets are higher at the moment of writing and there is every reason to anticipate that an average catch will be secured.

A COMPANY with headquarters at Montreal has been incorporated to be known as the Midway Company, having a total capital stock of \$60,000. The object is to acquire lands in the Province of British Columbia and Manitoba, and elsewhere in Canada from the Dominion or any Provincial Government, or any corporation or individual; to sell, rent, mortgage, exchange or otherwise dispose of said lands; to survey, colonize, settle, improve and build upon said lands; to lay out, operate, lease and maintain, in and upon said lands, roads, streets, gas and waterworks, electric light and power works, street railway propelled by any motive force, and to establish parks and squares; to assist settlers and do much else along these lines. The incorporators are Robert C. Adams, gentleman; Hartland St. Clair MacDougall, stock broker; Alexander Paterson, stock broker; Peter Lyall, contractor; Chas. Cushing, notary public; William Strachan, manufacturer; James P. Cleghorn, merchant; S. C. Stevenson, gentleman; James W. Withell, gentleman; John Withell, gentleman; George Dawson, agent, all of the city of Montreal, and John C. Haynes, merchant, of the city of Boston, in the State of Massachusetts.

INDUSTRIAL CANADA

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MANAGING EDITOR.

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TORONTO, CANADA, MAY, 1896.

BUSINESS MEN IN PARLIAMENT.

WERE INDUSTRIAL CANADA to answer the inquiry, What is Canada's greatest need? a question that has been made prominent by a city daily and been answered by leading citizen's in all walks of life, in different parts of the Dominion, the simple answer would be: "Business men in Parliament."

The country is not absolutely without representation from the business community in the House of Commons and our local legislatures, but there is nothing like the proportion of these in Parliament that should be the case.

Professional men may have much of business in their composition, yet their daily activities are in other directions and their thoughts are not those of business. We have no end of lawyers occupying seats in parliament, and as the making of laws, although we are inclined to think there is too much of that kind of thing, is an important part of the duties of parliament they are wanted there, yet there is no need of the preponderance of the legal profession that exists to-day.

The management of the affairs of a country is tantamount, only perhaps on an increased scale, to the management of an individual business, and the men best able to do this work are those whose training has been along business lines.

It is one of the anomalies of the times, that from the largest commercial centres, too often, the men chosen as representatives in Parliament are the opposite of business men. Without making invidious comparisons, what has been the position of Toronto usually in this respect? The complaint is that Toronto cuts no figure at Ottawa. And why? To a large extent because it has not sent its strong business men to Parliament.

We do not stop to enquire whether Mr. E. B. Osler is Grit or Tory, but do say, as answering the needs of Canada at this time, that it is a matter of congratulation that this gentleman has acceded to the urgent request of the people of West Toronto and will be a candidate for the Commons at the coming elections.

We want men of the high character and business experience of the President of the Toronto Board of Trade, to allow themselves to be put in nomination in all our commercial centres.

CANADA'S NEEDS.

IT is a good thing to find Canadians in an enquiring mood. We do not know that conditions are as serious as politicians tell us, seeing that these are election times. At the same time things will bear investigation.

Indifference is the greatest evil of the people. They do a lot of hasty thinking—or take the thinking in chunks, as it comes from others—at these times. What is required is a more equitable distribution of the concern that bunches itself into one short month or two every five years.

Careful thought, well matured and influenced by a sincere regard for the Dominion's welfare, from her best citizens is a need of the hour. This kind of thought we find in a letter written by Mr. B. E. Walker, general manager Bank of Commerce, to the *Globe*.

Politicians are ready to promise much at these times. The question is whether the wise thing is to continue in the execution of promises, or is it not better to call a halt?

Problems of race, and problems of class assert themselves beyond question. These will create ferment, and disturb business, so long as unsettled. On these and other important points Mr. Walker writes as follows:—

1. We should settle as speedily as possible all questions now under discussion which are calculated to create sectional differences.

2. Let us also discuss less such subjects as imperial federation, or better trade relations with the United States, and give closer attention to the humbler but more important details of our business affairs at home.

3. We should exercise the greatest possible economy in public expenditure consistent with efficiency, whether in the affairs of the Dominion or the smallest municipal government. Business is depressed and we spend too much, publicly and privately. Economy is unpopular but absolutely effective for such moderate ills as we in Canada are required to bear.

4. Each Province should offer the best possible conditions to induce the better class of men, not satisfactorily employed, to take up free-grant lands. This is an old story, but every man already in the country and willing to work when thus placed, is a greater gain than an immigrant. The Dominion Government should open throughout Great Britain and Northern

Europe offices where reliable information could be obtained regarding our lands, agricultural, pastoral and mineral.

Nothing has happened in the progress of Canada which requires us to seek new roads to success. We have merely halted after over-exertion and will resume our march when through the needed rest we have acquired fresh energy.

BY THE WAY.

It is not our disposition to point out the weak side of the Canadian situation, rather than the stronger. And yet sound philosophy teaches that strength is only put on as defects are made known. It is pleasanter to talk of business being good than of business stagnation, and yet if things are stagnant they are not always made better by calling the bad good. A writer in the Toronto Week draws a somewhat doleful picture of the conditions of business in Ontario, and yet we are inclined to think that in some respects, at least, he has made a good case.

* * *

Let us hear what the philosopher of the Week has to say, and his remark that the philosophical enquirer will always look for the cause of an effect is adapted to the view we have here expressed. Over-education is given as one of the main causes of the present business stagnation. The rush is for the cities and away from the country. This is not through any innate laziness, but is an outcome, in the opinion of the writer quoted, of the system of education.

* * *

Let the Week state its own case :

"Canadians work hard enough when they do work, and the climate, instead of tending to enervation, demands a survival of the fittest. But where they are put on the wrong track is by the education which is given to them. The public schools fill their young heads with notions which absolutely unfit them for that state of life to which it pleased God to call them. Restless ambition seizes them. Every farmer's son must be a preacher, or a teacher, or a lawyer, or a doctor. Every farmer's daughter must be a typewriter, or a saleslady. In the city it is worse. The young plumbers and butchers and bakers have their heads stuffed with the 'ologies, and the teaching of trade and technical knowledge is neglected. The girls are no better than the boys in this matter, and young girls instead of being taught cooking and sewing are taught music and singing and French—all at other people's expense. If the community were absolutely socialistic, and the whole organization of society would be run like one machine, and no more handicraftsmen or domestics were required, the Ontario public school system would be excellent. For the world as it exists and always will exist, it is a Utopian, chimerical and dangerous system.

* * *

The ward politician and the politician of the corner grocery is described as the fruit of this same system. How? This is the answer :

"One sad result is the diversion of the mental power of the country into politics. Semi-educated men, with nothing but the gift of speech, undertake

to deal with questions which require wide information and great knowledge of the world. Other men who have everything to gain and nothing to lose, deliberately chose politics because they believe they can make them pay and get some "fat thing" out of them. These two classes form the majority of the actual governing power in the constituencies. We know a city not a thousand miles from here where the foreman of a firehall dictates to the sitting member how the patronage is to be dispensed. Even the scientific positions are in the control of this man. There should be a radical reform in the educational system of the province. Until there is we shall have a diversion of power from the material expansion of the country into lines which thwart that expansion—we shall have a continuance of jacks in office who ought to be handling the plough—and the result will be that the business interests of the whole country will suffer as they are suffering now. Further, a result of the present style of education is an ignorant know-nothingism. There is an absolute ignoring of any history except Canadian, with an ill-digested smattering of English. Ancient and foreign history are considered out of place, and we are growing as one-sided as the Americans. The consequence is that on both sides of the line theories, which were laughed at by Aristophanes, or advocated by Cleon, are solemnly brought forward to-day by rustic Solons as if they had never been tested and condemned a thousand years ago and more. The wrong men have got into Canadian politics and the right men have got into the way of staying out and letting things go. It is a very dangerous element of weakness and ought to be remedied or worse will happen."

* * *

Despite, however, what may seem to be the down grade of Canadian politics it is refreshing to notice the independent spirit that permeates even the party press of the country. This, from the Toronto World at a time when the call for a general election has been issued, seems to be worthy of quotation here :

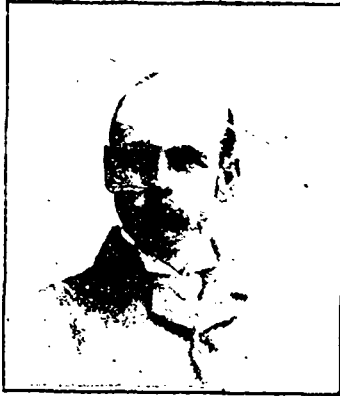
What this country wants at the present time is better stuff in its public men—those who sit in our Legislatures, Federal and Provincial, and in our Municipal Councils. Our representatives do not, to a sufficient degree, recognise the duty they owe to the public. They are more intent, the great bulk of them, in discharging a duty they conceive they owe to themselves or to their party. They are seeking office for themselves or for their family, and they think the crack of the party whip will absolve them from all responsibility to the people who sent them as representatives. A man who seeks the confidence of the electors in order to make or earn an office for himself is a fraud, and public opinion should so stamp him. Once our Governments, whether Provincial or Federal, come to see that their proposed legislation must commend itself to the members of the body in which it is put forward on its merits, and not to their prospect of self-advancement for supporting it, there will be less bulldozing and better legislation passed.

EXTENSIVE additions are being made to the buildings of the Eastern Dairy School at Kingston, Ontario. The school is now in charge of the Ontario Government and will be carried on by President Mills as director, in conjunction with the board of governors, of the School of Mining and Agriculture, in the City of Kingston. There are now three dairy schools in Ontario, all under the control of the Government—one at Guelph, one for the western section at Strathroy and one at Kingston for the eastern portion of the province.

CANADIAN MANUFACTURERS' REPRESENTATIVE.

MR. J. CASTELL HOPKINS DELEGATE TO THE CONGRESS OF CHAMBERS OF COMMERCE.

ON Saturday 16th inst. Mr. J. Castell Hopkins will sail for Great Britain, as delegate to the Congress of Chambers of Commerce, representing the manufacturers of Canada, and commissioned to advocate closer trade relations between this country and England and to suggest lower duties in return for preference in the British markets.



MR. J. CASTELL HOPKINS.

A better selection could hardly have been made. A student of trade questions for many years Mr. Hopkins is in close touch with the manufacturers of Canada. A thorough Canadian he is at the same time an equally loyal Britisher, and as one of the founders of the Imperial Federation League in Canada and for some time its secre-

tary, he has given very special thought to the question of trade between the motherland and her colonies. At the present time preferential trade is a live, and in a good measure, a practical question in the minds of leading public men in Great Britain and Canada. Mr. Hopkins, as representing important industrial interests in Canada, and present at the coming Congress in London, England where these matters will be discussed from the standpoint, both of the mother country and the colonies, may be expected to present the claim of our own Dominion in a manner that can only be helpful to her further growth and greatness.

To Canadians Mr. Hopkins is best known as one of her cleverest journalists and authors. A son of an Englishman, who came to Canada in 1876, Mr. Hopkins was born in 1854.

In 1882 he entered the service of the Imperial Bank of Canada becoming in a short time accountant in one of its main branches. This position he resigned in 1890 and actively entered the field of journalism as associate editor of the Empire.

More recently his efforts have been in the line of authorship. His "Life and work of Sir John Thompson" has already reached a sale of over 10,000 copies and won the highest praise from men of all parties.

His later book "Life and work of W. E. Gladstone" seems likely to reach equal success. As a contributor to the Forum, The American Journal of Politics, The Chautauquan, The Engineering Magazine, The Westminster Review and other leading journals abroad as well as the principal Canadian magazines his pen has by no means been idle.

Mr. Hopkins' published pamphlets on Canada, which emphasize his fitness as Canadian delegate to the

London Congress, include "Links of Union between Canada and Australia," "The Position of Canada," "British Connection," "Imperial Federation," "The Intercolonial Conference" and "The American Situation."

In a very particular sense INDUSTRIAL CANADA is deeply interested in the outcome of the Congress of Chambers of Commerce.

The purpose of this journal is not alone the extension of trade within the borders of the Dominion, but as those who have studied these columns from month to month are aware, intelligent, and we have reason to hope, successful efforts are being put forth to open a field for the rich resources and productions of Canada in the sister colonies of the great British empire. The mention in this connection, that we hope to have from Mr. Hopkins own pen some account of the Congress and articles suggested by the deliberations that will there take place, will be pleasing news to the many friends of INDUSTRIAL CANADA.

MORE ABOUT NEWFOUNDLAND.

SUPPLEMENTING comments in these pages last month concerning the mining wealth of Newfoundland a correspondent of the Mail draws further attention to the resources of this colony. All that seems to be wanted is men and money—a want, it may be said, the Dominion of Canada over. Newfoundland, as with Canada, is rich in resources that only want development. What surprises this Newfoundland correspondent is that "experts who have spent years wandering over most black and barren lands of the world in prospecting tours never thought about visiting Britain's oldest colony, where the very nature of the land is now found to be a mining expert's paradise."

"For years Gilt Cove has been known as a mining settlement, cargoes have been shipped away, yet this fact proved insufficient to attract outside attention. It remained for the iron horse to plough up the interior of our island home, and to reveal the bosom secrets of nature, so faithfully reserved from time immemorial. Whatever may be said otherwise, Newfoundland feels proud of the interest that has been taken in her by the Montreal railway contractor, Reid, who is now completing our North-Western railway to Bay St. George. By his influence, and with the help of his capital, Newfoundland bids fair to prove to the world that she will richly reward Mr. Reid, who deserves to be, and who has taken the interests of our country to heart. Belle Isle is almost worth its weight in gold. It is calculated thousands of tons of iron will be taken from there. Steamers can haul in close to the pier and load. On our Southern shore, in the vicinity of Cape Broyle, specimens of minerals have been taken therefrom and forwarded, through his Honor Judge Prowse, to London to be tested. Governor Murray finds the mineral resources of Newfoundland worthy of communicating with the

Home authorities about. Newfoundland is truly wealthy; the spoils of the ocean, the seal, salmon, lobster, herring, codfish, are always to be found round our shores. Coal, copper, iron, silver, gold, abound in the interior, and various other minerals are being found in large quantities. It is because of political party wars that the country has failed to respond before, as it promises to do in future under the wise and beneficent rule of our popular and esteemed Governor Murray."

It is gratifying to note that the interest in Newfoundland affairs is on the increase in Canada and whilst union with the colony does not seem an immediate matter yet it is reasonable to suppose that time will bring this about.

MR. E. B. EDDY TO ATTEND THE CZAR'S CORONATION.

A late communication from Mr. E. B. Eddy, of Hull, who was then at Karlsbad, tells of his intention to be present to witness the coronation of the Czar of all the Russias, which event is soon to take place and about which so much has been read and heard of. The gorgeousness of the ceremony and prodigality of wealth in direct contrast to the poverty and slave-like existence of the Czar's subjects makes this event all the more interesting, and the international importance attendant upon it is such that ambassadors and representatives from all the courts and republics in the world will be witnesses. Li Hugh Chang, with his famous peacock feather and numerous retinue, will represent the Chinese Empire.

Had Canada been an Empire or a republic, necessitating sending someone to represent her at this coronation, it would perhaps have been difficult to have chosen a better man than Mr. Eddy. Mr. Eddy is a good specimen of the shrewd, successful Canadian and will well represent this country, even in an unofficial manner. Mr. Eddy at first proposed attending the Derby this spring, but says that the Derby happens every year, and as the coronation of a Czar is not likely to occur again in his lifetime he chose the latter this year and hopes to "do the Derby" next year and thereafter.

INDUSTRIAL TRADE REVIEW.

THE LUMBER OUTLOOK.

It is not encouraging. The Canada Lumberman summarizes the situation in Ontario in these words: "The dark horizon which has of late overshadowed the lumber trade of Ontario shows few signs of brightening. Looking at the situation from the standpoint of a white pine dealer little encouragement is found in peering into the future. As the season advances, and the days and weeks pass when trade should assume a marked activity, the conviction becomes more general that the year will prove to be little better than that of 1895. The United States market, to which we look for the disposal of the greater part of our lumber product, promises to be unsettled by a presidential election, while local business will no doubt be also affected by the election campaign. Should there be any noticeable improvement in the demand for pine this season, it is not likely to come until after political matters have been adjusted and general commerce becomes more settled. The opinion is held by some that this improvement will be realized, and the fact that stocks of lumber in the hands of retailers are very limited gives strength to this view. Even an average demand would soon exhaust the supply held by many of the retail yards. At present consumers of lumber are placing orders only for actual requirements, showing a tendency to hold off for further developments. In hardwoods the situation is different. A fair demand, well distributed, is being experienced, and while not large in volume, is of such a character as to maintain a firm tone to the market. The new crop has not yet been placed on the market, consequently wholesale dealers are meeting with some difficulty in filling orders for certain sizes. There is a scarcity of all sizes above inch and a quarter, while of the latter size there is not a large supply."

FARMING INTERESTS.

The May issue of Farming deals very fully with the practical side of farming and it is difficult to see how the intelligent farmer can manage without this well conducted journal. No interest is neglected, and in a day when the most careful

management is necessary to make farming pay, the hints, suggestions and information, born of practical experience, here furnished, ought to help largely in the attainment of this end. If there is any preference in subjects discussed perhaps this should go to the account of the Canadian Horse Show, where an opportunity is given to exalt the many excellent points of the noble animal in a day when the "silent steed," the bicycle, is running him a hard race.

ELECTRIC LIGHTING PLANTS.

The entire editorial space in the April Canadian Electrical News is given up to a discussion of the management of central station plants. It is plainly stated that with few exceptions these plants are but poorly managed. Rarely are they made to pay, and trouble between the contractor and the municipality is of frequent occurrence. What is the difficulty? The Electrical News says: "As illustrating the results of poor designing and inexperienced management of a central station plant, we may mention a plant in another province that has recently been remodelled by an electrical engineer of experience. Machinery to the total capacity of 1,500 lights was installed in a town of 6,000 inhabitants, with no competition from gas, or rival electric company. The fuel used was slabs and refuse from a lumber mill near by, with a small amount of coal to help out. The lumber had of course to be bought at a small price, and carted, and the calculation was it was worth, taking its fuel value into consideration, coal at \$3 per ton. This plant has been in operation for six years, with really excellent engines and dynamos, and the electric company has during that time paid a man a good sum to run it. The staff has consisted of an "electrician," as he is called, who is a very fairly well posted man according to his general education; a very fair engineer and fireman, and an outside lineman. And the result has been that during six years, with all these advantages, the plant has not earned one cent above operating expenses. At different times the company has employed engineers to advise them what to do—engineers of steamboats; engineers of plants in the neighborhood, and they have always had the chief engineer of a very extensive factory in the same town to call in. These men have examined, and talked, and suggested but no better results have followed. At last the company called in an experienced electrical engineer, and placed themselves entirely in his hands, and the result was that the method of operating the entire plant received attention, as well as the individual machines; and the new system of operating effected a saving in fuel equal to almost 1,000 lbs., of coal per night, besides many other smaller amounts which were saved in various ways. Taken separately, the various machines—boilers, engines, dynamos—were all doing very well, but taken as an electric lighting plant, they were doing very badly, simply because they were not caused to work together. You may hitch four horses to a wagon, and although they may be all willing and strong, they will all pull in different directions and do no good if driven by less than a horseman—but let that horseman take the reins, and see how he pulls them together; see how he makes each do its fair work; and see how they become—not four horses and a wagon, but one team. And is it to be supposed that the manager of an electric lighting business requires less experience, and requires less study in his business, than a "sport" does in his?"

BUILDING CONDITIONS.

Regret is expressed by the Canadian Architect and Builder that the Ontario Architects Bill in the Ontario Legislature was withdrawn. It seemed likely at the outset of the session that the measure would become law, but as it neared the time of dealing practically with it the opposition became more pronounced. With a strong Patron element in the Legislature there is want of sympathy with any measure that appears to partake of class legislation, though prejudice more than reason prevails often in such cases. This view is expressed by the Architect and Builder in these words: "The great obstacle in the way of the measure appeared to be the inability of the legislators to understand the object which the architects had in view in seeking to obtain this legislation. They seemed to take it for granted that there must be on the part of the architects a personal object to be gained, and because they could not discover such an object they regarded the Bill with suspicion. In view of the suspicion in which the efforts of the architects are held and their methods questioned, it were much better that the legislation sought should be promoted by persons who thoroughly understand the necessity for such legislation as will elevate the standard of architectural practice in this province, and we believe it would be possible to obtain an influentially signed petition asking the Government to legislate on the question. The Government appears to be thoroughly in accord with the objects of the Bill, and we would be pleased if they could see their way to introduce a Government measure dealing with the question."

IMPERIAL CUSTOMS UNION.

THE ONE THOUSAND GUINEA PRIZE ESSAY OF THE LONDON STATIST—A VALUABLE CONTRIBUTION TO THE DISCUSSION OF PREFERENTIAL TRADE.

WITH the Congress of the Chambers of Commerce meeting in London, Eng., next month, the contribution that follows is a timely addition to the literature of the subject.

The London Statist offered a prize of one thousand guineas, it will be remembered, for the best essay on imperial customs union, the competition to extend to the end of 1895. The Marquis of Lorne and Lord Playfair acted as judges in the award of the prize, being nominated by Lord Salisbury and Lord Roseberry. The essays submitted numbered 136, about one-fourth of the number, as the Statist announces, being received from colonists. The judges decided to divide the thousand guineas into two prizes of 500 guineas, awarding these to Mr. J. G. Colmer, C.M.G., chief clerk in the office of the Canadian High Commissioner, and Mr. R. S. Ashton of Kent, England. Six other essays were specially commended by the judges, one of which was from Mr. James Van Sommer, jun., of Toronto. Mr. Colmer's essay is the first to be published, and appears in the form of a supplement to The Statist of May 2.

The essay refers in opening to the growing sentiment throughout the empire in favor of a more binding and more effective union than exists at present between the mother country and her colonies. In the words of Lord Salisbury this question of closer Imperial unity is described as "nothing more nor less than the future of the empire." Statistics are given in generous array with reference to the area, population and trade of the empire and its various portions. With regard to the development of inter-Imperial trade results are shown which, from a colonial point of view, are of an interesting character. It is pointed out that taking the exports of British and Irish produce (exclusive of the re-exports of foreign and colonial merchandise), the trade to foreign countries in 1894 showed a decrease of 4 per cent. compared with 1870. Comparing 1889 with 1870 there was, however, an increase of 12 per cent. In the similar exports to the colonies, excluding India, the increased trade of 1884 over 1870 was 50 per cent., and in 1889, as against 1870, it was 70 per cent. In 1894 the increase was 33 per cent. over 1870. Including India the exports to British possessions in 1894 show an increase of 40 per cent. over 1870, and in 1892 an increase of 60 per cent. compared with 1870. From these trade returns the lesson is drawn that in their individual capacities the colonists, as things are at present, are much better customers of the United Kingdom than foreigners.

COLONIAL EXPENDITURES.

The rapid expansion witnessed in the colonies in recent years comes in for brief review, because of the important bearing which it has upon commercial federation. The colonial debts are glanced at, and the cause of their increase is found in the necessity which existed in new and sparsely settled territories for giving Government aid to the construction of railways and other public works. Reference is made in this connection to the reproach against the colonies, which is sometimes heard, that they do not contribute to the army and navy. It is pointed out that the development of the colonies, and the construction of public works, railways, canals, etc., while they may not always be regarded perhaps as direct contributions to Imperial defence, cannot altogether be disregarded in considering the general question.

Attention is directed, in illustration of the more than local influence and the political strategical significance which may attach to such works, to the Canadian Pacific Railway, which in interest alone on the subsidies granted to the company entails an annual charge of one million sterling on the revenues of the Dominion. In the money expended every year by

the colonies upon their local defences evidence is found that they are not indifferent to the question of defence. The charges, however, upon their revenues for interest on railways and on telegraph lines, for steamship and other subsidies, many having an important bearing upon Imperial defence, make it difficult, if not impossible, for the colonies to offer any large sums as contributions to the Imperial army and navy.

PREFERENTIAL TREATMENT.

Coming to the consideration of suggestions for commercial federation, the theories of free trade and protection are set aside, and the problem is approached in the spirit of compromise. It is laid down as the fundamental basis of commercial federation that there must be preferential treatment of the products of the empire within the empire in some form or another. No other plan is regarded as practicable. The nominal difficulties in the way of such an arrangement, from the point of view of critics in the United Kingdom, are compressed into three heads; that it would

- (1) Increase the price of food.
- (2) Hamper British trade with foreign countries and British competition with foreign countries by increasing wages and the cost of materials.
- (3) Lead to retaliation on the part of foreign countries.

Preferential treatment, it is argued by Mr. Colmer, does not mean an increase in the price of commodities. Placing of small duties on about eighteen articles is all that would be required to give some benefit to every possession of the empire "The duties need only be of such an extent as to afford the colonies a preference; and on their merits, in conjunction with other circumstances, should not convey the idea of being likely to lead to much, if any increase in price. The imports from the colonies, of the same category as those from foreign countries on which duties would be imposed, should remain free from duty, and ordinarily they would have a tendency to regulate the prices in the markets. This would prevent the increase inevitable perhaps from a customs duty, out of proportion to the actual necessities of the case, on commodities in the sale of which the colonies did not compete. If the duties were not high enough to protect or to unduly stimulate any of the industries associated with the various articles, the policy could not rightly be called protection, even although it might be of some slight benefit to the colonies and to the interests concerned in the United Kingdom."

The second of the three difficulties is disposed of in the answer to the first. "If the prices of food and raw materials are not likely to be increased to any appreciable extent by the operation of commercial federation, it can not be expected to hamper our trade relations with foreign countries or to place us at a disadvantage with them in competition in the various markets of the world."

NO FEAR OF RETALIATION.

With regard to the fear that the policy might lead to retaliation on the part of foreign countries, Mr. Colmer does not regard such a result within the range of probability in view of the fact that British imports from foreign countries largely exceed, with hardly an exception, British exports to the same countries. "Our competitors at present impose tariffs on imports from Great Britain as high as the commodities can bear with the desire of encouraging their own industries, and any retaliation would only react upon themselves. Besides, it is idle to suppose that a small duty equal, say, to about 3 per cent. on a few articles, is going to disorganize the whole foreign trade of the empire. It would be just as reasonable for Great Britain to object to preferential tariffs which France, Spain Portugal and Holland grant to the produce of their colonies, and to the preferential treatment Norway and Sweden extend to one another, as for foreign countries to take exception to a family

fiscal arrangement between the different parts of the British Empire."

It is suggested as the basis of commercial federation that duties amounting to about 3 per cent. ad valorem should be levied by the United Kingdom upon the following products from foreign countries, similar import from the colonies remaining free:—Live animals (oxen and sheep), meats, cheese butter wheat, flour, hemp and other fibres, used for the same purposes as hemp, ivory, leather (undressed), sugar (unrefined), refined sugar, wool (goat's or hair) wool (lamb's and sheep's), tallow and stearine, seal skins, fish oil (train or blubber), logwood, mahogany, nuts and kernels for oil, cocoa, coffee and tea. "Even the most rigid free trader," Mr. Colmer thinks, "could hardly raise any reasonable objection to such a moderate proposition." If, he says, duties are permissible on tea, coffee, cocoa and tobacco, they are also justifiable from an Imperial point of view on many of the articles of food in the list submitted.

WHAT THE COLONIES MIGHT DO.

Considering what the colonies and India might do it is his opinion that "no colony could take the initiative in such a matter, nor could any number of colonies acting together very well do so. It seems, therefore, to be one in which the mother country should take the initial steps and offer some general proposition as a basis for discussion and consideration, upon which a practical and workable scheme may be built up." Dealing with the difficulties in the way of any general scheme, the conclusion is reached that in view of the varying tariffs and revenue needs of different colonies the only way to reach any rule for arriving at the preferential treatment to be accorded by the colonies will be for them to take as a basis their revenues, less their revenues from Government railways and sale of land, where there are such, and also less the amount spent on military and other defence, local or otherwise. The working out of the scheme in detail, would, of course, be left to the colonial and Indian Governments. They would naturally follow the course adopted whenever negotiations for commercial treaties are in progress, and show what they were prepared to offer in the matter of giving such preference to British over foreign imports in return for the concessions extended by the mother country. The fiscal policy of the outlying possessions would not, therefore, be interfered with in any way by outside influences. Although the scheme is one which may be carried out without entailing the adhesion of every Administration in the empire, it would be important that it should be generally adopted. It would probably be more convenient to make the arrangement for a term of years, subject to modification in regard to tariffs from time to time. It is claimed that commercial federation on these lines would not in any way limit the legitimate desire of the colonies to extend their trade with foreign countries by the negotiation of commercial treaties, as they would naturally, as a party of any proposition of that kind, preserve the principle of preferential treatment to British goods.

FUND FOR IMPERIAL DEFENCE.

Setting aside the general question whether the colonies should be asked to make contributions to the Imperial navy, because, apart from the fact that the colonies would never consent to be taxed for any service of the kind, there are other objections to it, both from Imperial and colonial standpoints, it is given by Mr. Colmer as one of the advantages of the proposed scheme of commercial federation that it would nominally create a fund of nearly a million and a half sterling per annum, to which all the parts of the empire would contribute. By agreement between the colonies and the mother country it could be used profitably to supplement the existing defences outside the United Kingdom, and to gradually strengthen the weak points in our Imperial armor, which are so palpable to those who have studied the question. The fund could not be described as

taxation of the colonies by the mother country, or as a contribution by the colonies for the purposes of the navy, and, besides, in its administration the colonies and India would have a voice. The sum is not large, and may not go very far in any one year in the direction of carrying out all the desired objects, but it would be an annual fund, with a tendency to expand as trade developed.

A COLONIAL COUNCIL.

The old problem comes up of how best to give the colonies the voice in the affairs of the empire to which they may claim the right under closer relationship with the mother country. An Imperial Parliament in which the possessions would be represented appears to be entirely out of the question. It is doubtful if it could ever be made successful from any point of view. Indeed, it would tend to create difficulties rather than remove them. But what is immediately practicable is the formation of a Colonial Council, which might consist of the Colonial Minister as Chairman; the Foreign Secretary, the Secretaries of State for India and for War, the First Lord of the Admiralty, and the Chancellor of the Exchequer. The Agents-General of the self-governing colonies should be made *ex-officio* members on the request of the Governments they represent. The number of colonial representatives is rather large—ten in all—but when the Federation of Australasia takes place it will be immediately considerably reduced, and a further reduction would follow the federation of South Africa. Even under present circumstances the council would only number sixteen members, which is not very large, considering the extent of the empire and the interests that are involved. The council would be the medium by which the fund created by commercial federation would be administered. It would be the medium by which the colonies could place before her Majesty's Government their views on questions of general interest to the empire. Many events happen upon which joint action is now taken; and it is by no means an infrequent occurrence for the Agents-General and the High Commissioner to wait upon the Colonial Minister in a body for the purpose of making such representations. The council would be what its name would imply, a council in which the colonies would have a voice, through their representatives, in regard to any matters arising out of preferential trade arrangements, and upon all other subjects in which the countries they represent had a right to consult, and to be consulted by, the Imperial Government. It would be purely consultative except in matters affecting the expenditure of the commercial federation fund, in connection with which it would be administrative.

THE OBSTACLES.

The only important obstacle in the way of immediately carrying out the scheme, and it would apply equally to any scheme involving the granting of preferential treatment, is caused by the treaties which Britain has with Belgium and Germany. These do not prevent differential treatment by the United Kingdom in favor of British colonies. They do not prevent differential treatment by British colonies in favor of each other. But they do not prevent differential treatment by British colonies in favor of the United Kingdom. The treaties would, however, be only a temporary obstacle, inasmuch as they may be terminated at the end of twelve months at any time.

In conclusion: "It may be asked what advantages would the mother country on the one hand, and the colonies and possessions on the other, derive from commercial confederation? It would bring the mother country into closer union with the colonies. By giving preferential treatment, on a modified scale, to British trade within the limits of the empire the bond of unity would be material as well as sentiment. By such preference the doctrines of free trade that are common in the United Kingdom would not be endangered, and freer trade than at present would be made possible within the empire. On the other hand, the British manufacturer would retain the control of the rapidly-increasing colonial markets. There would be a unity for the defence of the outlying parts of the empire, and a Colonial Council for mutual consultation on matters of general interest. Greater attention than ever would be attracted to the colonies. Emigration would flow in larger numbers to their shores. Their powers of production would be increased, and the United Kingdom would year by year depend less upon foreign sources for her good supplies. Surely some sacrifices are justifiable on both sides to bring about results of such magnitude."

Canadian Mining Interests

MINING POSSIBILITIES IN CANADA.

THE action taken by the Ontario Government in granting encouragement to miners by allowing \$1 for an amount of ore which will smelt one ton of pig iron, should go a long way to stimulate the mining industry in this province.

It is very doubtful, as the *Toronto World* has taken occasion to remark, whether Canadians realize the great promise there is in mining in the Dominion. Quoting this paper:—

Money in large quantities, principally of United States and English capitalists, is being invested in hundreds of Canadian gold and silver mines. Spokane, Washington Territory, is the scene of wonderful activity and excitement over Canadian mines. English and American investors seem to be clinching our most valuable properties. There is more or less activity in Montreal, but as yet the fever seems to have escaped Toronto. A suggestion has been made by a resident of the new town of Rossland, in the Kootenay district of British Columbia, that the Montreal Board of Trade should organize an excursion among business men to inspect the mining districts of the Pacific province. It is pointed out that capitalists and business men of Eastern Canada would find there an extensive field for investment and development of trade.

Why should not the Toronto Board of Trade discuss the advisability of getting up a similar excursion here so that Toronto business men may learn somewhat of the possibilities of the Kootenay district and the other mining centres of Western Canada? Not only in British Columbia is the mining boom developing very rapidly, but the Rainy Lake and Port Arthur districts are experiencing no little activity in the same industry. The *Portage Record* says that never before in the history of that district were there such indications of an inflow of capital for the development and working of gold properties. The bases of immense fortunes are being laid to-day in the purchase of Canadian gold and silver mines. Already large sums of money have been made, and the future is full of promise. It will be too bad if foreigners are allowed to skim all the cream off our valuable gold fields. We in Toronto ought to get in closer touch with what is going on in the mining districts out west, and an excursion such as that proposed would prove a splendid means of accomplishing this result. A visit to the town of Rossland, which is only two or three years old, would be a perfect revelation to the people of Toronto. The town has now no less than three hotels and most of them are three storeyed buildings. Before many months are over the Canadian mining fever will have assumed big proportions. Is Toronto going to remain asleep while other cities are making the best of the golden opportunity?

CURRENT OPERATIONS.

JOHN H. ANDERSON'S gold quartz crusher at Cheggetcook, N. S., has been burned.

THE Canadian Pacific Road are offering very tempting inducements along their main line and connections to assist the British Columbia mining country.

THE ore in the district of the Regina and Sultana mines in the Rat Portage territory averages an ounce of gold to the ton of rock, which is higher than South Africa, Western Australia, British Columbia or Colorado.

OFFICIAL announcement is made in our advertising columns that the Ontario Government are prepared to furnish on liberal terms the services of a diamond drill, fully equipped with boiler and steam pump, to those owners of mines or mineral lands in the Province who may wish to test the value of their properties or explore them for ores or minerals.

GEORGE PATRICK BROPHY, civil engineer, Sandford Hall Fleming, civil engineer, John William McRae, forwarder, John Byrne Brophy, civil engineer, Hector McRae, merchant, all of the city of Ottawa, have been incorporated as the Ontario Graphitic Company (Ltd.) with a total capital stock of \$200,000. The purpose of the organization is to explore for and acquire any lands, mines, mining claims and mining rights, and to work, sell, lease or otherwise dispose of the same or any of them; to construct and maintain buildings and other erections and improvements on any of the said lands or elsewhere for the purposes of the business of the company; to mine, mill, smelt and otherwise treat any minerals, and to convert them into commercial products by any process or power; to buy, sell, or otherwise to dispose of minerals and the products thereof; to acquire by lease, license or purchase, and again to dispose of any

patents of invention or rights thereunder covering any process that might be used in connection with the operations of the company.

THE Cariboo Hydraulic Mining Co. in British Columbia anticipate profits of \$540,000 in a single season. Results of the past season's work are tabulated as follows:

Water used in pit No. 1 19 days, 11 hours
Water used in pit No. 2 25 days, 11½ hours

Total 45 days, 9½ hours
Gold product of season, gross \$60,309 93
Yield per miner's inch, per day (estimated) 56 cents
Pit No. 1—
Quantity of water used 52,935 inches
Gravel removed (estimated) 60,000 yards
Gold recovered (estimated) \$35,000
Yield, per cubic yard 58 3/10 cents
Duty of water, per miner's inch, per day 14-16 cubic yards

PROSPECTIVE.

The estimated gross product for the season of 1896 is \$300,000
The estimated cost operating the mine for a period of 180 days during season 1896 is 76,000
The estimated possible number of working days without water 150
Leaving a net estimated profit for season of 1896, say \$213,900

During one week the output of ore through Revelstoke was 818,000 pounds, valued at \$38,217.50. This was the product from five mines. The *Slocan Star* headed the list, the shipment from this mine being valued at \$14,000. The *Alamo* next with \$11,000.

NOTICE of application for incorporation under the provisions of the Companies' Act of the Dominion of Canada has been made on behalf of the Anglo-Canadian Mining Exchange (Limited) with a total capital stock of \$50,000, headquarters at the city of Toronto; (a) To carry on business as general agents and dealers in mines, mining locations and mining lands in the Dominion of Canada; (b) To buy, sell, exchange, lease and deal in mines, mining lands and mining properties, and to obtain options thereon for the same purposes; (c) To examine, inspect and investigate all such properties for the better placing of the same upon the market; (d) To develop mining properties which, on examination, give sufficient evidence of value as the directors shall consider necessary to make the same marketable; (e) To purchase or obtain options on timber or other lands, which by reason of their proximity to mining property handled by the company may be deemed desirable; (f) To prospect for mining locations and acquire from the various provincial governments mining and other rights in same; (g) To act as promoters or agents in the formation of joint stock companies or syndicates for the sale and disposal of mining properties; (h) To act as agents for the sale or purchase of mining stocks or shares; (i) To act as a bureau of information on all subjects connected with mining in Canada; (j) To do all such things as may be necessary for the attainment of the above objects and the business incidental thereto; (k) To have the right to take paid-up unassessable stock in any joint stock company to which this company shall have sold mines or mining properties in payment or part payment of the purchase money, and (l) To have the right to issue paid-up and unassessable stock of the company in payment for mines and mining locations or mining rights and interest. The applicants for incorporation are as follows: John Juchereau Kingsmill, president of the Mining Institute of Ontario, Ewen Mackenzie, Esquire, Henry O'Brien, barrister, James Gunn, Esquire, George Plunkett Magann, merchant, Alexander Fraser, merchant, George Gurd, accountant, and Jacob Dolmage, miner, all of the city of Toronto, and John Geale Dickson, of Shirley, Southampton, England, Esquire.

THE Smoke Preventer Company (Ltd.), with a total capital stock of \$10,000, has been organized at Montreal. The company will manufacture and deal in smoke preventors and other devices for abating the smoke nuisance; to acquire such patent and other rights as may be deemed necessary or expedient for the purposes of said business, and to manufacture or grant licenses to manufacture under such patent or other rights or otherwise dispose of the same. The following are the charter members:—John MacFarlane, of the town of Westmount, manufacturer; Smeaton White, publisher; William John White, advocate; Francis Longueville Snow, gentleman; Edward Hobson Barker, gentleman; all of the city and district of Montreal.

Ripans Tabules.

Ripans Tabules cure nausea.

Ripans Tabules: at druggists.

Ripans Tabules curo dizziness.

INDUSTRIAL PROGRESS

◆ Gleanings from all parts of the Dominion ◆

THE Huntsville Lumber Co. are running their mill day and night.

At Warton this season \$30,000 worth of hay and straw has been sold.

The lumber cut on the St. Johns, above Grand Falls, this year, is estimated at about thirty-five millions.

A NEW sawmill is being built by the Gilmour Lumber Company, of Trenton, Ont., to be located at Canoe Lake.

THE McClary Mfg. Company, London, Ont., recently shipped a load of stoves and other goods to the Yukon district.

THE Hawkesbury Lumber Co., Hawkesbury, Ont., suffered a loss of \$100,000 by the destruction of their three mills by fire.

EDWARDS & Co.'s sawmills in Carleton Place have commenced running day and night. About 200 men are employed.

THE business of Elias Rogers & Co., Toronto, coal and wood merchants, has been incorporated; capital stock \$250,000.

TORONTO's treasurer estimates a total expenditure for the current year of \$3,139,009, of which \$1,867,628 ranks as uncontrollable.

A. W. BRODIE has recently added eight new looms to his cotton mills at Hespeler, Ont. Employment is given by Mr. Brodie to about 800 hands.

MCLACHLIN BROS.' large water mill at Arnprior, Ont., has commenced its season's work. The steam mills have also commenced, and likewise the Gillies mills.

WHEELMEN who transport their wheels on any of the Canadian railways after the 17th inst. will be charged 50 lbs excess baggage. The minimum charge will be 25c.

ORILLIA's assessor returns a population for that town of 5,061 and 322 dogs, or a little more than a dog for each 16 persons. The total assessment for 1896 is \$1,267,270.

A TRACTION engine that will weigh 40,000 lbs. and drive fifteen pumps, is being constructed by the Sawyer-Massey works, Hamilton, for use on the Northwest prairies.

C. HILL, M. Hill, William Becker, August Holland, George Allenson, all of Warton, have been incorporated as the Hill Chair Company, to manufacture chairs. Capital stock, \$25,000.

LAST year Canada exported \$15,000,000 worth of cheese to Great Britain. The combined exports of all other countries to Great Britain during the same period amounted to only \$10,000,000.

THE Excelsior Manufacturing Co., of Chicago, is to establish a branch at Hamilton, and will build a \$40,000 warehouse. They control a patent for preserving eggs, and intend to export eggs to England.

THE Walkerton Chair Company, with a total capital stock of \$10,000 has been incorporated, John A. Leggett, Thomas Whitehead, S. W. Vogan, J. B. Huether, Reuben E. Truax and others, all of Walkerton.

A whole steel swing bridge, 124 feet long, built for the Huron and Erie Railway Company, was shipped from the shops of the Central Bridge and Engineering Company, of Peterborough, Ont., a few days ago.

THE Standard Gas Company (Ltd.), with a capital stock of \$100,000, has been organized in Montreal. They will manufacture gas, construct gas plants and lay gas plants for use in cities, town and villages of the Dominion.

A BY-LAW to grant a bonus of \$5,000 for an electric railway to run between Perth and Lanark was carried by a majority of 127 at Perth, Ontario, the road to be running by the first of September, 1896, a distance of 12 miles, with headquarters at Perth.

THE Hamilton Board of Trade has appointed Messrs. A. T. Wood, F. C. Bruce, W. H. Gillard and John A. Bruce to represent it at the great Congress of Chambers of Commerce in London. Mr. Wood will sail on May 20th, and the other gentlemen on June 15th.

MESSRS. A. G. Strathy, P. Connor and Richard Reynolds, representing the Ratepayers' Association, of Toronto, presented a statement to the Manufacturers' Committee of the Council a few days ago to the effect that a large quantity of goods now imported, and set forth in a schedule annexed, could be profitably manufactured in the city. Among the manufactures in question are factory cotton, soap, powder, starch, tobacco and pipes, sugar, galvanized iron, files and rasps, steel hardware, pig iron, leather, etc. The City Council was asked to instruct the City Clerk to communicate with various clerks in England and other countries where such industries are carried on, for the purpose of ascertaining the names of firms engaged in such manufactures,

so that they might be advised of the opportunity for doing a prosperous business in Toronto, and of the encouragement offered by the city for the establishment of new industries. A detailed statement of the imports gives a total of \$1,248,846, the largest items being \$211,358 for hats and \$196,012 for manufactures of steel.

THE Kensing Manufacturing Company of Goderich (Ltd.), has been incorporated with a total capital stock of \$40,000; for the manufacture of furniture. The charter members are: Horace Horton, manager; Ephraim Downing and Samuel Sloane, merchant; George Acheson, builder; and Robert Gibbons, sheriff, of Goderich, and Frederick George Rumball, manufacturer, London.

THE Algoma Pioneer says: "The bed of Goulais River is filled for miles with logs cut last winter for Sault Ste. Marie Pulp and Paper Company. In places the banks are over fifty feet high and filled to the top with timber between sixteen and thirty feet long, all waiting for the moving of the water. Fears are entertained that the stream is overloaded and will burst its banks."

THE Canadian Metallic Monument Company, capital \$45,000, has been incorporated by James Bowden, R. Drury, W. T. Reid, J. W. Reid and C. W. Connor, all of Toronto. The Ottawa Trust & Deposit Co., capital \$500,000, has been incorporated by Sheriff Sweetland, Peter Whelen, Alex. Fraser, Joseph Riopelle, N. C. Sparks, J. W. McRae, G. P. Brophy, Wm. Scott, C. A. Douglas and John McCracken of Ottawa, to transact business as trustees and agents.

THE Canadian General Electric Co. have just concluded some of the largest contracts for electrical apparatus ever awarded in any country. They have sold to the Lachine Rapids Hydraulic and Land Co., of which Senator Burland, of Montreal, is president, 12 three phase generators, of 1,000 horse power each; this being the second largest power transmission contract in the world. A contract has also been made with the Montreal Street Railway Co. for a 2,000 horse power generator, this being the twelfth of its size manufactured, and making a total of 8,000 horse-power of generators made by the Canadian General Electric Co. for the Montreal Street Railway, and 5,000 for the Toronto Railway. Contracts for the London Street Railway, Halifax Street Railway, Hamilton Radial Railway, Moncton Street Railway, Hull and Aylmer Railway, Cornwall Street Railway, etc., have been closed recently; in addition to large orders for increased equipment for the Toronto Railway, Montreal Street Railway, Vancouver, B. C., Street Railway, and Victoria, B. C., Street Railway. The sale of electric lighting apparatus during the past few months has exceeded all previous records; the value of contracts under way by this Canadian company exceeding \$400,000.

CANADIAN ENTERPRISE.

The business of the E. B. Eddy Co., Ltd., of Hull, is one that Canadians have good reason to be proud of. Mr. Eddy has for many years ranked as one of the most enterprising business men of Canada. He has always had courage for large undertakings. Where at one time he was one of the most extensive lumbermen of Canada, with the changed conditions in lumbering he has of recent years shrewdly given his energies to the manufacture of pulp and paper.

The extensive mills of the company are located at Hull with railway connections via, Canada Atlantic Railway, Central County Railway, Grand Trunk Railway, Ottawa, Arnprior and Parry Sound Railway, Ottawa and Gatineau Valley Railway, Pontiac Pacific Junction Railway, St. Lawrence and Adirondack Railway, St. Lawrence and Ottawa Railway, Vaudreuil and Ottawa Railway, and by canal and river transportation to all points.

The place is a whole town of itself, with bank, express, telegraph, post office and money order offices at the mills. The mills include a sulphite fibre mill, wood pulp mill, undurated fibre mill, paper and rag mill, and four paper mills. The buildings are stone throughout with metal roofs. Water and steam power are used.

The machinery in use is as follows.

Indurated Fibre Mill, 7 presses, capacity 800 articles daily.	
Wood Pulp Mills, 12 grinders	35 to 40 tons
Sulphite Fibre Mill, 4 digesters	23 to 25 tons
Paper Mill No. 1, one 86", 6 cylinders,	
Woodboard Machine	13 to 15 tons
Mill No. 1, one 96" Four Machine,	12 tons
Mill No. 2, one 76" Harper Four,	
Tissue and News	6 tons
Mill No. 3, one 96" Four. Fine Book & Writ.	8 tons
Mill No. 4, one 86" Harper Four.	
News and Manilla	8 to 10 tons
Paper Bag Mill, capacity averages one million Bags daily.	

POLITICAL AFFAIRS AS VIEWED BY CANADIAN EDITORS.

Ontario is not Rome, and it is only when you are in Rome that you should do as Rome does.—Hamilton Speciator.

When Sir Oliver leaves them, the members of the present Cabinet will be a lot of Hardy little orphans with Hardy appetites.—Dundas Banner.

The shadiest thing we know of about the Liberal party is the general complexion of its much-paraded Montreal ticket for Parliament.—Montreal Witness.

The dead will vote, the alien will vote, the exile will vote, and a new generation of young men will be denied the ballot at the coming election.—Uxbridge Journal.

"Hugh John's" nose, Oliver Mowat's upper lip, Laurier's silver tongue and Sir Charles's "P's" have already appeared on the face of the campaign. It is not known yet who is to supply the large ears.—Montreal Star.

They say now that Charles Tupper is a bigger egotist than Kaiser William. He is probably a bigger other thing, too. Nobody ever suspected the Kaiser of telling whoppers.—Hamilton Herald.

If the people of the United States had votes in Canada Mr. Laurier's chances would be greatly improved in the pending contest and Sir Oliver Mowat would be willing to join the party outright instead of hedging by offering to take a seat in the Senate and a Cabinet position in case of a Liberal victory at the polls. But they haven't.—Moncton, N. B., Times.

The way to kill remedial legislation and preserve the prosperity of the country is to elect Conservatives who are anti-remedialists. There are nearly forty candidates of this character nominated in Ontario already. If they are all elected a Remedial Bill will be an impossibility, the National Policy will be safe, and the movement for preferential trade will be materially advanced.—Toronto News.

The men who are elected members of Parliament in June will hold their posts for the first year of the twentieth century, and should we not demand of them that they be better men—men of higher moral courage and broader capacity—than those of the last Parliament? See that the men who are elected are twentieth-century men. Don't let that century dawn upon such a Parliament and such politics as we have had for the past year. Put an end to it now, and begin the century in a way befitting the age of the world.—Toronto Saturday Night.

Mr. Taillon, the Conservative Premier of Quebec, was invited by Charles Tupper to give up his position and take the risks of a general election as a Federal Minister. He did it at once. Sir Oliver Mowat, the Liberal Premier of Ontario, was the recipient of a like invitation from Mr. Laurier. He took a couple of weeks to consider the matter, and then decided that he would wait and see how his prospective chief came out in the election contest, before he would throw up his present position. In this contest, Mr. Taillon gets the prize of courage. He also gets the credit of having most faith in his party.—Montreal Gazette.

REDUCED COST OF GOVERNMENT DIAMOND DRILL.

THE GOVERNMENT OF ONTARIO OFFERS TO OWNERS OF MINES or mineral lands in the Province who may wish to test the value of their properties or explore them for ores or minerals, the services of a diamond drill, made by the Sullivan Machinery Company of Chicago, and fully equipped with boiler and steam pump. It is of the "C" class, with a capacity of boring to a depth of 1,200 or 1,500 feet, and has already proven itself a satisfactory and efficient machine. A competent mechanical manager is supplied with the drill.

Under the amended Rules and Regulations governing the use of the drill, the Bureau of Mines will bear 45 per cent. of the gross expense of operating the drill during 1896 and 1897, including transportation charges, labor, fuel, etc., and applications for its use will be considered in the order of their receipt. A bond for payment of share of cost chargeable to owners of properties, and a monthly settlement of accounts are required.

For pamphlet containing amended Rules and Regulations, and for information as to cost of operating drill in localities already explored, etc., address Archibald Blue, Director of the Bureau of Mines, Toronto.

A. S. HARDY,
COMMISSIONER OF CROWN LANDS.

Toronto, 28th April, 1896.

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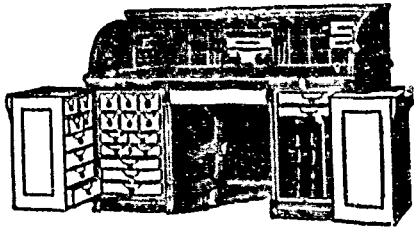
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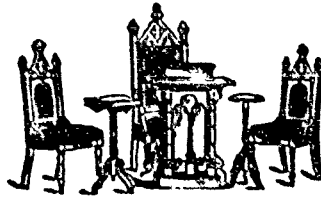
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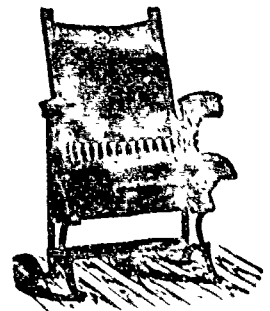
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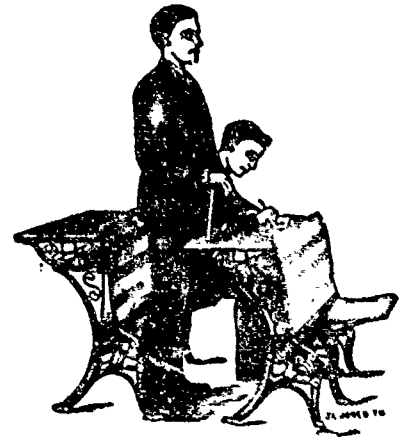
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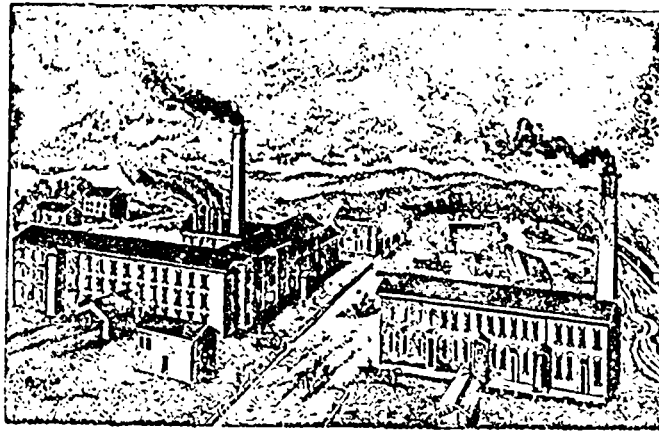
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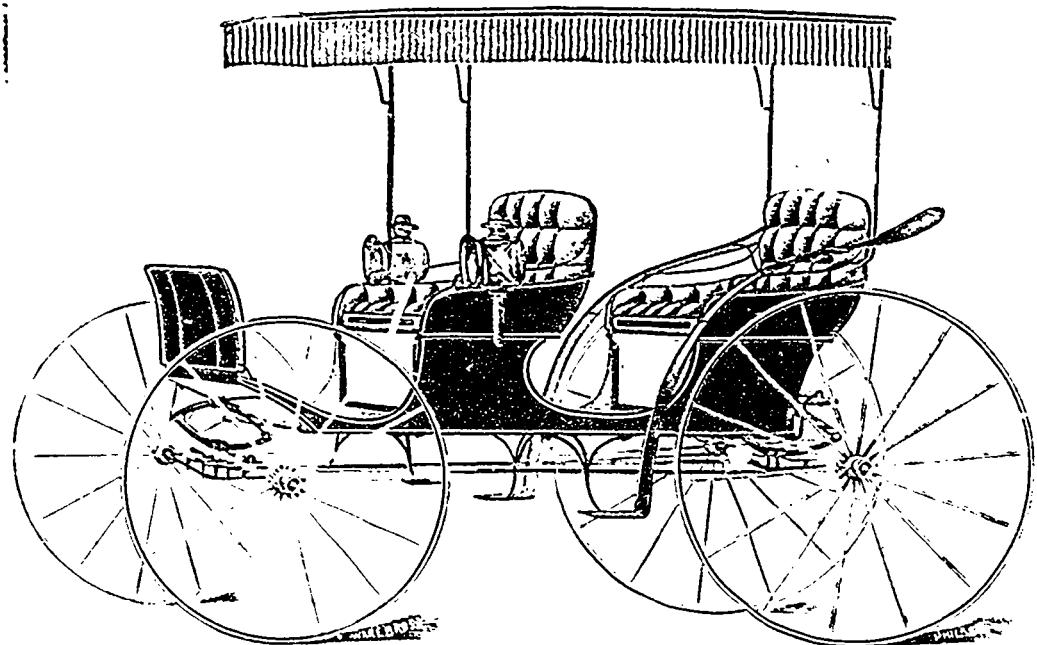
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