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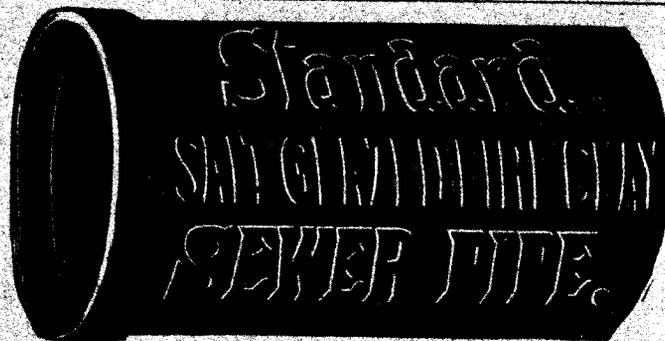
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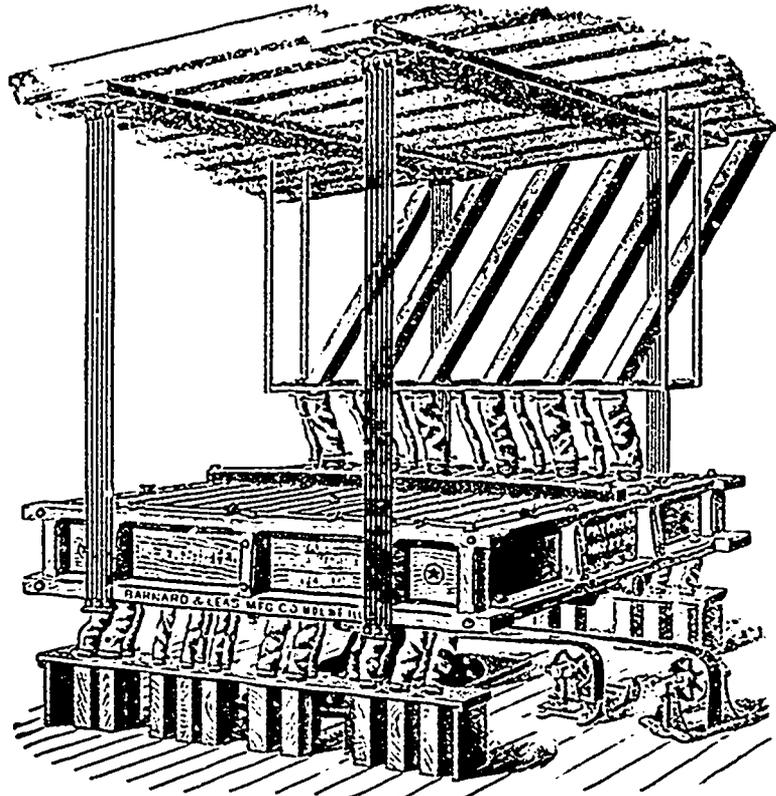
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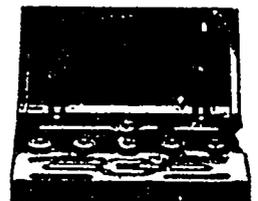
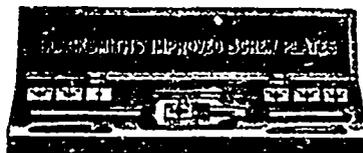
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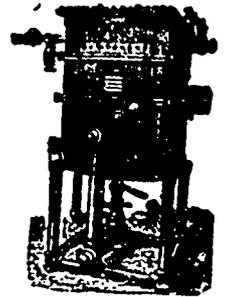


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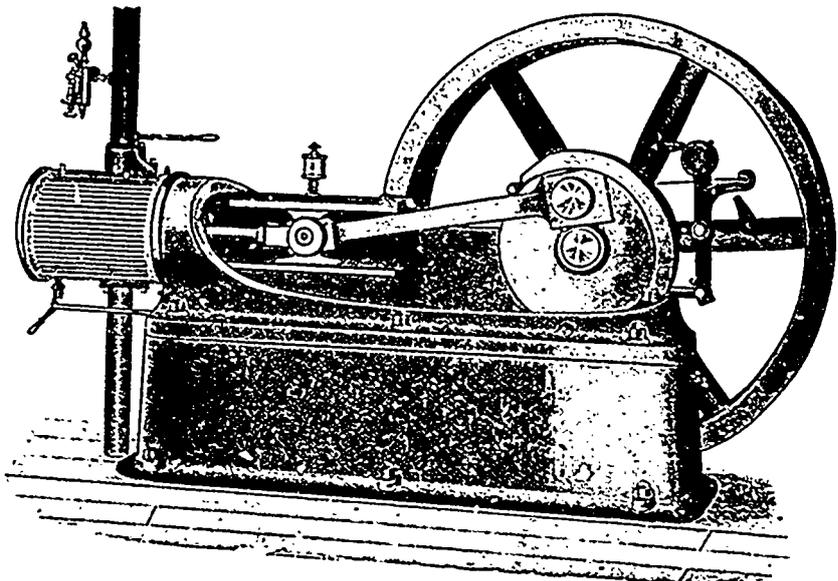
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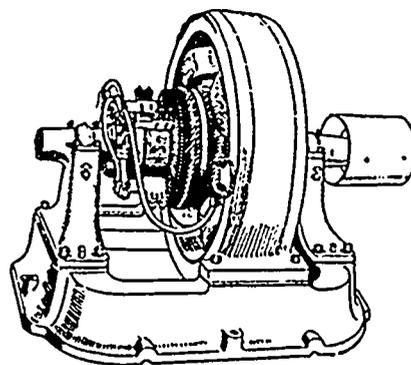
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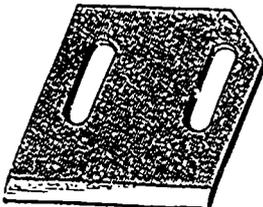
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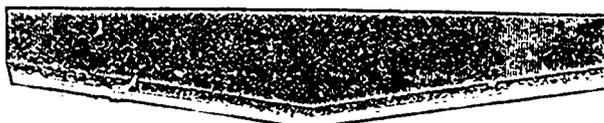
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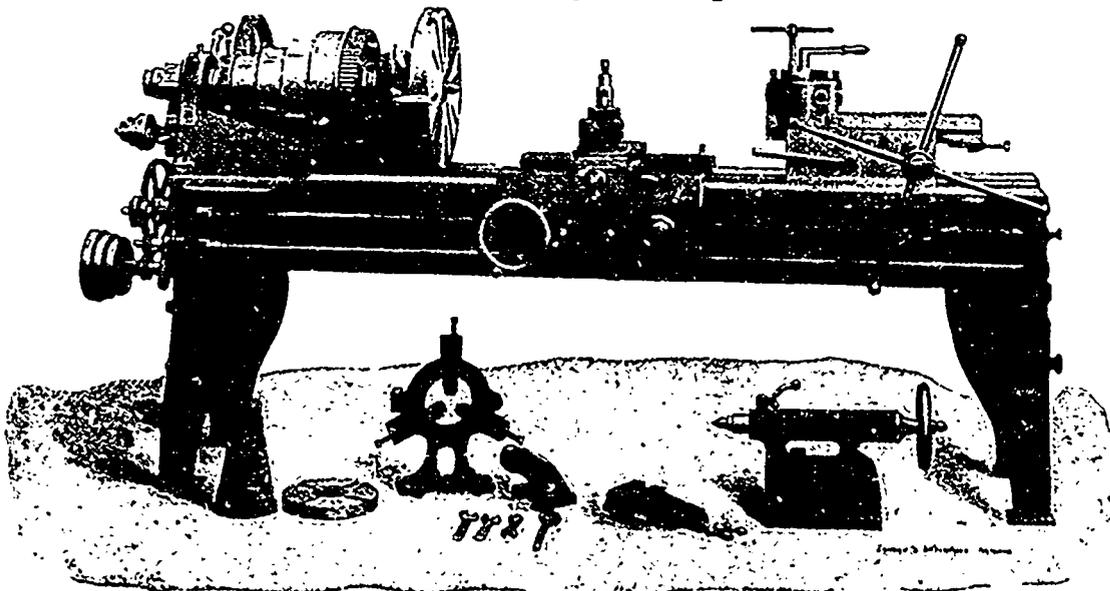
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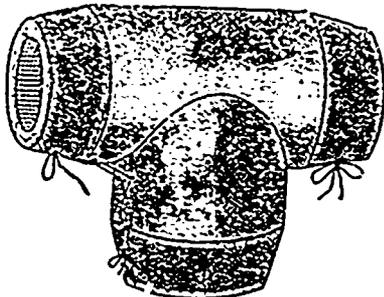
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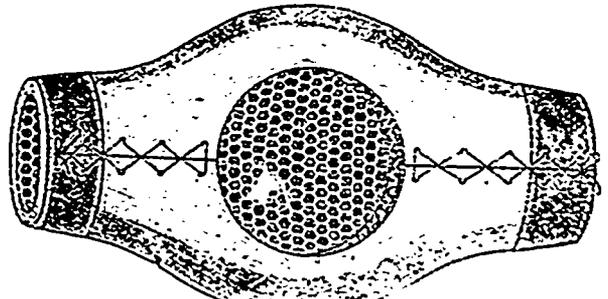
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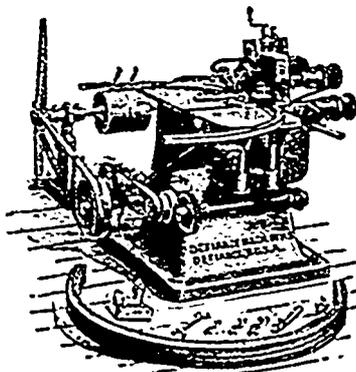
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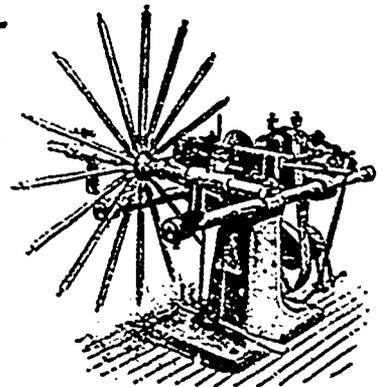
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TWENTY-THIRD ANNUAL MEETING

OF THE

Canadian Manufacturers' Association.

REPORT OF PROCEEDINGS.

The twenty-third annual meeting of the Canadian Manufacturers' Association was held in their offices in McKinnon Building, Toronto, Tuesday, April 12, 1898.

Mr. D. W. Karn occupied the chair, J. J. Cassidey, Secretary.

The minutes of the last regular meeting were read and approved.

PRESIDENT'S ADDRESS.

President Karn delivered an address which appears elsewhere in these proceedings.

SECRETARY'S REPORT.

Secretary Cassidey made a verbal report, showing the condition of the Association, and the circumstances that surround it at the present time.

TREASURER'S REPORT.

Treasurer Booth presented his annual financial statement for 1897, which was read and adopted. It showed the Association to be in a sound financial condition, and that the roll of membership was well maintained.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:—

President	J. F. Ellis
First Vice-President	James Kendry, M.P.
Second Vice-President	P. W. Ellis
Treasurer	George Booth
Secretary	J. J. Cassidey

CHAIRMEN OF COMMITTEES.

The following Chairmen of Committees were elected:—

Executive Committee	R. W. Elliot
Tariff Committee	W. K. McNaught

REPRESENTATIVES TO TORONTO INDUSTRIAL EXHIBITION ASSOCIATION.

R. W. Elliot.	George Booth,
W. K. McNaught,	A. E. Kemp,
J. J. Cassidey.	

RESOLUTIONS.

The following resolutions were read, discussed and adopted:

THE NATIONAL POLICY.

Moved by Mr. Hays.
Seconded by Mr. Booth.

Whereas, from its geographical position and commercial environments the prosperity of the Dominion of Canada depends largely upon the maintenance of a fiscal policy which will foster our agricultural, mining, commercial and industrial enterprises, and which will make the interests of Canadians paramount to those of foreigners, by preventing this from being made a slaughter market for the surplus products of foreign countries; and

Whereas, the observance of such policy gives confidence and stability to capital and enables our artisans to obtain wages far in excess of those which prevail in European countries, and which keeps them in the country by the payment of wages which enable them to live in comfort; and which provides a home market for many lines of agricultural products, which cannot be exported; a policy which also

attracts foreign capital and inaugurates industries by inducing those who desire to participate in the benefits of our market to manufacture their products here; a policy which encourages and develops inter-provincial trade, and produces amongst the people a feeling of security, of national pride, and commercial and industrial independence, highly conducive to the welfare of the whole people, without which we can never attain to the acme of national prosperity; and

Whereas, the revival of the mining industry in this country has given an impetus, not only to agricultural, but to many other industrial enterprises, as nearly everything used or consumed in the mining regions has to be brought from outside sources;

Therefore, be it resolved, that this Association desire to again place itself upon record, that in its opinion the prosperity of this country imperatively demands the continuance of a fixed and definite policy of protection, from the general principle of which there shall be no deviation, in order that our agricultural, mining, commercial and other industrial enterprises may participate in its general prosperity.

AS TO RECIPROCAL TARIFFS.

Moved by Mr. P. W. Ellis.

Seconded by Mr. R. W. Elliot.

While heartily commending the Dominion Government for their desire to confine the scope of the Preferential Tariff exclusively to the Mother Country and the British Colonies, this Association is strongly of the opinion:—

1. That our Preferential Tariff should not be extended to any colony, unless such colony accords to us a tariff preference in their market, equivalent to the discrimination allowed by us in its favor.

2. Where our minimum Preferential Tariff is applied, the minimum rate of duty thereunder should be high enough to protect existing Canadian industries from the competition of countries having lower priced labor, cheaper raw materials, and capital, and whose long established industries give them great advantages over those of Canada.

3. That although the minimum Preferential Tariff has already been extended to Great Britain without any corresponding preference to Canada, we would strongly impress upon the Dominion Government the necessity of obtaining reciprocal concessions from the Mother Country as speedily as possible.

AN INSOLVENT ACT.

Moved by Mr. W. K. McNaught,

Seconded by Mr. R. W. Elliot,

Resolved, that this association reaffirms the desirability of a Dominion Act providing for the equitable and economical distribution of insolvent estates.

W. H. STOREY.

Moved by Mr. W. K. McNaught,

Seconded by Mr. A. E. Kemp,

Whereas, The Canadian Manufacturers' Association have learned of the death of Mr. W. H. Storey, of Acton, Ont., a former President of this Association and one of its most active and loyal members; and

Whereas, Industrial pioneers such as Mr. Storey are not only an honor to their country because of their integrity and

public spirit, but also worthy of the highest respect of their fellow citizens because of their efforts to introduce and foster manufacturing industries in Canada; and

Whereas, the death of such Captains of Industry as Mr. Storey is a real loss to the country at large; therefore be it

Resolved, that this Association place upon record their sincere and heartfelt sorrow at the death of such an eminent and esteemed member.

William H. Storey was a successful business man, a sincere friend and a model citizen. He was more than these—in his home life he was a loving and affectionate husband and father. In the bosom of his family the kindness of his strong nature manifested itself. To know his home life was to love and admire him; and those who knew him best loved most the simple manliness that actuated him. His life, public and private, is a lesson that needs no translation. Such men are the builders of great nations, and we sorrow at his loss.

Resolved, that the Secretary be instructed to engross these resolutions in the minute book of the Association and to send a copy of the same to Mr. W. H. Storey, Jr., to be transmitted to the family. Also that it be recorded that a wreath of flowers was sent by the Association on the occasion of the funeral.

VOTE OF THANKS.

Moved by Mr. A. E. Kemp,

Seconded by Mr. W. K. McNaught,

Resolved, that this Association hereby expresses its appreciation of the retiring officers and executive.

Moved by Mr. A. E. Kemp,

Seconded by Mr. Kern,

Resolved, that this Association hereby expresses its confidence in its secretary and its treasurer.

PRESIDENT'S ADDRESS.

President Kern delivered the following address:—

Gentlemen of the Canadian Manufacturers' Association:—

The past year has been one of progress and encouragement to most manufacturers, and as an Association organized for the promotion and protection of our country's manufacturing interests, we have cause for congratulation that so few disturbing elements have interfered or called for united effort or attention on the part of the Association. The objects for which this Association exists are worthy of the support and effort of every person engaged in manufacturing enterprises. Namely:

1. To ensure by all legitimate means the aid of both public opinion and Governmental policy in favor of the development of home industry, and the promotion of Canadian manufacturing enterprises.

2. To enable those in all branches of manufacturing enterprises to act in concert as a united body whenever action in behalf of any particular industry or of the whole body is necessary.

3. To maintain Canada for Canadians.

The manufacturing industry of our country is probably the most important factor in the development and opening up

of the vast resources that are stored in abundance throughout this Canada of ours, and I will venture the assertion that there is no country in the world to-day that has the unlimited resources that Canada has to supply materials of every description and kind for its manufacturing industries. If this be a fact it is most important that the manufacturing interests be carefully watched and jealously guarded by wise legislation, aided by the combined and united efforts of such an organization as the Canadian Manufacturers' Association.

During the past few months the attention of the whole world has been attracted to Canada. The discovery of gold mines that surpass in richness all those of the past, has been one of the main features in bringing people of all climes and nations to our country, willing to undergo all manner of trials and hardships in the search for gold.

We have reason to believe that manufactures, as well as all other classes of business, have entered upon more progressive and prosperous times, which we are pleased to recognize. The abundant blessing of Divine Providence has been present in a marked manner—the bountiful harvest surpassing all former years, with increased prices, has been one of the chief factors in restoring confidence. This has caused an increased demand for manufactured goods, thereby making it possible for manufacturing industries to largely increase their output.

It is a matter of congratulation that the most of our manufacturing establishments were able to work continuously during the past year, and many of the products of them are finding profitable markets throughout the various countries of the world. This fact should be of interest and pride to all Canadians.

We are pleased to note that so far as the political aspect of the case presents itself, regarding a reasonable amount of protection to the industries of the country, this has been fully recognized and conceded by both political parties, so that practically there is union where there had been strife and conflict, and but few radical changes have so far been made in our tariff to disturb trade. Canada for Canadians should be the one important aim in all our legislation—the watchword given to all our representatives in legislative halls.

Situated as we are, adjoining the United States, so long as they place a tariff upon the products of our products entering their country, we are asking nothing unjust or unreasonable that they should be asked to pay a like tariff charge on all their goods entering Canada. Protection does not make home made goods any dearer, for home competition brings prices down to the lowest possible level above cost of production, the benefits derived from it being the preservation of our home markets for our own people.

We refer with feelings of pride to the opening up of our country with railways, canals and waterways, which furnish means and ways of transit for the transportation of the commodities of trade and commerce, reaching even the remotest parts of the Dominion, so necessary and requisite for successful manufacturing. I am satisfied that if Canada is placed upon an equal basis, so far as its manufactures are concerned, we can produce goods, quality considered, as cheap as or cheaper than any other country. All we ask is fair play.

One of the greatest drawbacks the manufacturer has to contend with to-day, under the present condition of things, is the system of long credits. In certain lines of manufacture this applies more particularly than to others. Just how to

remedy the evil is a problem difficult of solution. The severe competition has, no doubt, led up to this system of trade. If some united action on the part of those who are affected by this matter of long credits could be taken, possibly a change for the better might be brought about. Another condition of things very much to be desired is to create a sentiment on the part of our people to buy Canadian made goods. If this could be accomplished it would tend to develop our manufacturing industry as nothing else could do.

At the present time there are being efforts made to place upon our statute books an insolvency law. It is not my intention to discuss at any length the merits or demerits of such a law. The arguments that may be advanced in its favor may be strong, but to my mind the arguments against it are equally as strong.

In conclusion permit me to say that the outlook for the future of our country is bright with hope for its manufacturing industries, and may the Canadian Manufacturers' Association, by their mutual efforts and zeal, ever be one of the chief elements contributing to the successful future of our country.

We belong to a great empire, the greatest that has ever existed upon the earth, and as a part of this empire we are destined to become a great people. Therefore let us be true to our best interests, loyal to our country, our institutions, and one another.

AS TO NEWSPAPER POSTAGE.

Hon. Mr. Mulock, the Postmaster General, has introduced a bill into the House of Commons for the re-imposition of postage upon newspapers and for a reduction to two cents upon domestic letters, conditional upon the enactment of the clause regarding newspaper postage. The argument of the Postoffice Department is that the free transmission of newspapers has resulted in the upgrowth of a great many mushroom newspapers, really advertising pamphlets in disguise, that, however, put themselves within the free transmission law. This, coupled with the increase in size and circulation of the newspapers of the larger cities, circulating all over the country, has added enormously to the amount of free matter sent through the mails. Statistics are given showing that whereas in 1889 but nine million pounds of newspapers went through the mails, the amount was increased to 16,257,000 pounds in 1897. This large quantity of matter does not include papers that circulate in the city or town of publication. The department charges half a cent each for them, the result being that the publishers usually attend to delivery by private delivery system in the place of publication. It is proposed that the rate shall still be the same for delivery of newspapers in the place of publication, that the mails may be used for free delivery in the country within a radius of ten miles of the place of publication, and that for all papers sent beyond the ten mile limit a rate of one-half cent per pound shall be imposed—one-quarter cent on January 1st next and an additional one-quarter cent on July 1, 1899.

The operation of the law will, of course, fall most heavily upon the large daily newspapers of the Dominion. The papers having a circulation entirely within the city of publication, or almost altogether so, will not be affected, because they do not use the mails. The local paper does not usually circulate in great volume over a larger radius than ten miles

from the point of publication. There are said to be probably not more than thirty legitimate daily newspapers in the Dominion that would have to pay heavily for postage under the new law, while there are, of course, hundreds of weeklies of one sort and another that would unquestionably be hard hit; not the ordinary country weekly, perhaps, but city weeklies and agricultural and religious journals with a big country circulation.

This proposed change in the law regarding the use of the mails by newspapers is directly in line with what THE CANADIAN MANUFACTURER has advocated for years, and it affords us much pleasure to thank Mr. Mulock for the interest he is displaying in this direction. Intelligent observers can but see that the free carriage of newspapers, or any other matter, through the mails is a favor shown to publishers that should not be shown, and has given an undue stimulus to enterprises that otherwise would never have sprung into existence. If this free passage of newspapers through the mails was instituted on the ground that newspapers are popular educators of the people, and that the acquisition of knowledge should not be restricted, the argument could readily be extended that books, maps, globes and similar articles should also be carried free. Doubtless mental pabulum is a good thing for the people, but it is not necessary to sustain life, and many really good people actually exist without it. Not so as regards some other things, such as food, raiment, medicines and nourishment for children and invalids, and even shelter. If it is right and proper that the Government should be a free carrier of mental food, why not also a free carrier of these things that are necessary for the physical comfort of the people? It may be argued that the best interests of the people require, that as little restriction as possible should be placed upon the acquisition of knowledge, and therefore that any and all publications that can by the operation of a lax and inefficient law be brought to conform to the definition of a newspaper, should be allowed free transmission through the mails. In our opinion the premises is bad and therefore the conclusion fails. As a general thing, as the Postmaster General suggests, local newspapers do not usually circulate to any large extent beyond the limit of a ten-mile radius from the places of publication, and there is no postage charged upon such circulation, and therefore no such newspapers would be affected by the proposed law. There are but few settlements or neighborhoods in Canada where there is not a newspaper published within a radius of ten miles, and therefore, there would be but few, if any, settlements or neighborhoods that do not, or could not, receive newspapers upon which no postage was paid. The reading of the large daily or weekly newspapers is not essential to the education of the people in either city, town or country—it is more in the way of a luxury that might be dispensed with. But those who might dispense with such luxury would not be deprived of their opportunity for obtaining all the news worth knowing, for they would have it imparted to them through their own neighborhood newspaper, upon which no postage had been paid.

However sharp the blow might be as a result of the change of the law, it would not affect country newspapers to any appreciable extent.

SIR CHARLES TUPPER'S MISCONCEPTION.

The Postmaster General, in presenting his argument in favor of his bill imposing postage upon newspapers going through the mails, set forth the fact of the great and rapid increase of weight of such matter, in commenting upon which Sir Charles Tupper advanced some reasons why the bill should not be passed, which to us appears far-fetched, unreasonable, and untenable. Sir Charles attributed the increase to the anxiety of the great mass of the people to obtain information; and he regarded the publication of newspapers as one of the most potent influences that the country possesses. "The bill," said Sir Charles, "strikes at the great newspapers of the country—the great organs of public opinion. The Postmaster-General is quite willing that there should be any number of insignificant newspapers that cannot obtain a circulation further than ten miles from the place of publication, because he thinks they cannot do any great harm. But this measure is directed at the leading organs of public sentiment, who are engaged in disseminating the proceedings of this House. Why is that? Because the hon. gentleman is aware that the discussion of questions in this House at the last session of Parliament, and especially during this session, is calculated to be most damaging to the party in power."

It is not surprising that "the great newspapers," as Sir Charles puts it, should imagine that they are the "great organs" of public opinion, and that therefore they are an indispensable element in our political life; but God pity that political life and the public opinion also, if it is to be formed and regulated and moulded by some of the "great" newspapers that come under our observation. Surely Sir Charles intended to say that these "great organs" are not the moulders of "public opinion," using the term in its best sense, but the cultivators of the worst phases of partizanship, in which there is no vestige of the teachings of statesmanship. Let any person with an unbiased mind read any of these "great" papers, especially when any important question is under consideration, and if it were influenced thereby it would conclude that those advocating one side the question are all angels and those on the other side all demons. A "great" paper, like the Globe, for instance, debauches itself by publishing cartoons showing its political opponents to be everything that is disreputable and disgraceful, supplementing these efforts at forming public opinion by the most bitter and vituperative language that the refinement and education of its writers can invent, not one of the least sufferers from such exhibitions being Sir Charles himself. On the other hand, observe The Mail and Empire, that other "great" organ of public opinion, and moulder of public sentiment, and one cannot but become weary of the inanity and inconsequentiality of its so-called arguments, and from these even Sir Charles is a constant sufferer. And these are fair specimens of the "great" newspapers in whose behalf a noble knight unsheathes his valiant sword.

And why should Sir Charles to the extent of his ability trample under foot the hundreds of most excellent newspapers published in Canada that do not fall within his category of "the great organs of public opinion?" Why are they to be stigmatised as "insignificant" because they cannot obtain a circulation further than ten miles from their place of publication? Does he imagine that the opinion of the editor of a country newspaper counts less in the minds of his readers,

who are his friends and companions, than the vulgar and vituperous cartoons and screeds of *The Globe* or the inane platitudes of *The Mail and Empire*? If he does he is mistaken. Country editors are not usually interested in railway deals, nor do they usually prove turncoats and traitors to their party.

Sir Charles, living as he does, in a glass house, should not indulge in throwing stones.

The country newspapers, "insignificant" though they may be in his opinion, will not fail to remember his expressed opinion of them.

A DISTRESSING CASE OF PARESIS.

Postage on Canadian newspapers is one of Mr. Mulock's pet ideas.

We carry Yankee newspapers free through the mails, in accordance with the postal treaty, which gives the revenue to Washington.

Because the Yankee papers come into Canada free of duty, and pass through the mails free of postage, the late Government decided that Canadian papers, which pay duty upon their presses and material, should also pass free through the mails.

It was also felt that by putting Canadian and Yankee papers on an equal basis, in so far as postage was concerned, the public would prefer the Canadian to the Yankee journals, and thus a Canadian instead of a Yankee spirit would be encouraged.

Mr. Mulock is going to carry the Yankee papers free through the mails and to charge postal rates for Canadian papers.

This is a distinct favor to the United States press.

Lucky Uncle Sam.—*The Mail and Empire*.

This is a pronounced case of softening of the brain. It is quite true that we carry Yankee newspapers through the mail, and we also carry Yankee letters at the same rate; and it is equally true that the United States carries Canadian newspapers and Canadian letters through its mail equally free, though our esteemed and fair contemporary does not say so; neither does it tell us that no newspaper published in the United States is carried even ten miles from the office of publication until the regular postage is paid thereon. If Yankee newspapers have free use of the Canadian mails, even so do Canadian newspapers have free use of the United States mails, although *The Mail and Empire* seeks to create a belief to the contrary. If the late Government decided that Canadian papers should be allowed to pass through the mails free of postage, because they have to pay duty upon their presses and material, they, as advocates of the National Policy, stultified themselves inasmuch as they always preached that the duty does not enhance the price, and that under a protective tariff Canada would be able to supply her wants for all such things. Believers in the National Policy have nothing to thank *The Mail and Empire* for in this covert stab at their pet theory. *The Mail and Empire* stabs right and left in a most indiscriminate manner. It tells us that the late Government felt that by putting Canadian and Yankee papers on an equal basis, in so far as postage was concerned, the public would prefer the Canadian to the Yankee journals, and thus a Canadian instead of a Yankee spirit would be encouraged. But they are not on an equal basis, for if they were Canadian papers would pay postage in Canada even as Yankee papers pay postage in the United States; and it is no compliment to the reading public of Canada to suggest that, both

classes of papers being equal as far as excellence is concerned, the Canadian papers would be rejected because of the cost of postage. If this should not be the cause of rejection, then it must undoubtedly be that the cause inferiority, which is not complimentary either to Canadian papers or Canadian readers. But then this is the logic of *The Mail and Empire*. If the encouragement of a Canadian instead of a Yankee spirit is to be effected by Canadian papers, then the Canadian papers that are to be engaged in this commendable work can only hope to effect it by giving the Canadian public quite as good and entertaining reading matter as Yankee papers do. Our contention is that with but very few exceptions our Canadian papers are quite as near to the mark in this respect as the very best Yankee papers that come to this country, the exceptions including such ultra demagogic papers as some of the Canadian abortives are. If so-called arguments, like that above quoted, are depended upon to defeat Mr. Mulock's bill, the good sense of the people being appealed to, the Postmaster General need entertain no apprehension regarding the passage of his bill imposing postage upon newspapers going through the mail.

SUPPRESS THE EVIL.

Said the Postmaster General in his argument in favor of his bill to impose postage upon newspapers going through the mails:

The tonnage of newspapers carried through the Canadian mails since free transmission has been the law, has grown to enormous proportions, and in many respects the system is being very considerably abused. In the year 1889 the mails carried free newspapers to a total weight of 9,000,000 odd pounds. In 1891 the weight went up to 11,000,000 pounds, and in 1897 it had grown to over 16,500,000 pounds, and every day, I might almost say, new papers are appearing upon the scene and demanding free transmission—newspapers of more or less merit, and many of them questionable as being newspapers at all, but yet complying with the requirements of the law, and therefore getting free transmission.

This means that there is being transmitted the equivalent in weight of newspapers of four pounds annually for every man, woman and child in the whole Dominion, and that without the payment of one cent for the carriage. According to the circulation liars of the daily newspapers only, those great moulders of public opinion and the preachers of common honesty, this vast free carrying business should be more than doubled. As Mr. Mulock says, the number of new newspapers constantly being exploited upon the country, and all of them demanding free transportation, is remarkable; and as he remarks, many of them, both old and new, are questionable as being really newspapers within the intention of the law. The free carriage of these and of all other newspapers is a drain upon the treasury that ought to cease, for there is no more reason and equity in carrying newspapers free than as a pauper by the Government. If it is of any value whatever it ought to be able to stand the postage imposed for its transmission through the mails, and if it cannot stand such a charge it ought to cease to exist. We cannot have a censorship of the press, but now, under free postage, the mails are burdened with the most sensational and pernicious literature that ought to be suppressed, and that would cease, to a large extent, to circulate if postage had to be paid. And then there are very many so-called newspapers that are merely catalogues

and advertising matter of commercial concerns with a few other advertisements included to save appearances, that would soon go out of existence if postage had to be paid, and the discontinuance of which would be a distinct advantage to the legitimate country newspapers. The post office department has for too long a time been a serviceable tool in the hands of commercial speculators who use it for the free distribution of their advertising matter. The proposed change would be of incalculable benefit to all other newspapers.

SUGAR AND THE SUGAR DUTY.

The recent tariff changes affecting sugar will have very little effect upon the cost of sugar to the consumer. Wholesalers say it will have a tendency to cause the importation of more West Indian sugar instead of German and Belgian sugar. This effect is anticipated because the increase of the tariff will likely throw the cheap yellow sugar and cause high grade raw sugar to be imported in its stead. This will mean that Canadian refineries will be able to operate on a very much larger margin than for the past year or so.

If the Ottawa government proposed to make changes in the tariff relating to sugar, they might have gone farther into the question and taken action that would have been productive of much greater benefit to Canada than by merely diverting our basis from sugar supply to the West Indies. London, England, newspapers have made many comments on the new Canadian sugar tariff, and they have nearly all reached the same conclusion. They look upon the Laurier government's action as calculated to prove very beneficial to the West Indies, in fact, as a sort of object lesson to Great Britain—a hint to the United Kingdom that Canada expects her to give us certain tariff advantages in her markets, by way of return for the favors recorded her under our preferential tariff.

Now, a preferential tariff for the Empire would be a very valuable assistant to every British colony and to the Motherland, but Canadians will scarcely relish the idea of Canada playing Lady Bountiful to the West Indies, entirely for the benefit of Canada's millionaire sugar refineries that are using every endeavor to keep Canada from becoming a sugar producing country, simply because they know that if we had any encouragement, sugar would be produced right here in Canada much more cheaply than they will supply the public with it.

Had the government desired to make a lasting benefit to Canada along this line, they might have left the tariff as it was and announced that they would give a bonus for the production of beet sugar from beets raised in Canada. Then they would have found out really how cheaply the refineries could turn out refined sugar.

The United States has found out that the sugar is cheaper as a home product than as an importation, and last spring the United States Agricultural Department at Washington sent out packets of sugar beet seeds to ten thousand farmers in every state in the Union. With every package, full directions for cultivation were sent and the recipients were requested to experiment. What was the result? They received such favorable reports from twenty-four states that this summer scores of factories will be built and equipped for the product of beet sugar, and the United States will henceforth be independent of other countries for its sweets. The United States acted immediately upon obtaining knowledge of what was

possible. If Canada had taken similar action we should to-day have been exporters, instead of importers, of sugar.

We in Canada knew seven or eight years ago that it was possible to produce sugar-beet sugar here as cheaply as anywhere else. In 1890 Mr. R. H. Lauder and Mr. C. C. James prepared a report on the sugar-beet question for the Ontario government, and we know from it that beets grown in Ontario average two pounds and three ounces, and average 13.63 per cent. sugar—a very much better showing than in many places in the United States where the sugar beet industry is in operation. It would have been much more practical had the government taken steps to encourage this industry in Canada instead of playing to the gallery by its recent action.

Let us look for the moment at the possibilities of a Canadian beet sugar industry. Canada imports 200,000,000 pounds of raw sugar annually. Of this 40,000,000 comes from the 32S beet sugar factories of Germany. Why cannot we produce, not only this forty million pounds, but the other 160,000,000 pounds as well? In addition to this it might be well to note that the United Kingdom imports annually beet root sugar to the value of some £10,000,000. Every ounce of this comes from Belgium, France and Germany. When preferential trade within the Empire becomes an accomplished fact who will supply this demand? Why not Canada?

In 1890 Germany imported 50,825 tons of raw sugar, and exported 2,964 tons. In 1896 Germany imported 265 tons of refined sugar and 765 tons of raw sugar. During the same year Germany exported 407,447 tons of refined sugar and 504,406 tons of raw sugar.

Does anyone desire any more conclusive proof that there are other methods of dealing with the sugar question for Canada than by adding to the import duty?

LUMBER IMPORT DUTY.

Last week the Lumbermen's Association of Canada held their adjourned annual meeting. They elected a deputation to confer with the Toronto Board of Trade and ask their assistance in securing an import duty on lumber, and appointed Messrs. Bertram, Campbell, Charlton, Scott and Miller a committee to draft a memorial for presentation to the Government. This committee were instructed to urge the imposition of an import duty of \$2 a thousand on lumber, thirty cents on shingles, and twenty-five cents on laths. The idea is simply to meet duty with duty, instead of leaving our market open to the United States while the United States market is closed to us.

The lumbermen moving in this matter are not actively supported by many of the lumbermen in northern and eastern districts who are practically unaffected by the existing anomalous regulations. Were they to throw their influence into the balance, there is no doubt that the Government at Ottawa would find itself under pressure it could not afford not to recognize. It is a pity that pressure is necessary to secure that which simple equity makes apparent as a measure of need and a measure of right. United States contractors are employing United States shantymen to cut Canadian logs; they employ United States river-drivers to drive the logs into Lake Huron; they employ United States tugs and raftsmen to tow them into Saginaw, Bay City, and other sawmill towns in the United States; there the logs are sawn in mills

constructed with United States capital, and operated by United States saw millers.

A Canadian goes across the line and gets work in one of these mills. (Why? Simply because competition from them closes the doors of scores of sawmills in Canada). Along comes a United States inspector with a copy of their alien labor law as his warrant, and the Canadian workman is promptly shipped back to Canada. Canadian sawmills are silent, and their owners have no redress against the competition that closes their mills by allowing United States sawmills to ship into Canada lumber sawn from lumber they took out of Canada.

It is to be hoped the Government will take action to control this matter. As in the nickel industry they have control in their own hands. Exercise it and Canadian sawmills will hum with industry. Fail to exercise it, and the Canadian lumber industry must remain stagnant, the Canadian sawmills shut, and Canadian mill operatives without work in Canada, and shut out of the labor market of the United States.

EDITORIAL NOTES.

It is estimated that a 150-mile canal would connect Hudson Bay with the Mackenzie River waterways. The James Bay Railway and such a canal would make the Mackenzie Basin as near to Toronto as it is to Winnipeg. This would open up at least two million acres of splendid wheat land, not to mention rich mineral properties containing petroleum, coal, etc. It is a fifteen day trip now from Missinabi on the C.P.R., to Hudson Bay, 120 miles. A Government road would reduce the time to three days. Give us the road and let us have this great north country thoroughly explored and made accessible as soon as possible.

Mr. Gordon Waldron, of Messrs. Waldron & Hodges, barristers, Toronto, has gone south to engage in the rubber growing industry in Nicaragua. He says that in Nicaragua there is a good market for ham, cheese, bacon and apples. He also thinks a consignment of plain furniture would sell well and nick nacks and novelties would go like hot cakes. Mr. Waldron represents Toronto capitalists, who are starting a rubber plantation. The world's annual consumption of rubber is 70,000,000 pounds, and these enterprising Canadians are going to have a try for a share of the market.

A Mr. Davies has been sent out as a special commissioner from Wales to investigate and report upon the success of Welsh settlers in Manitoba and the Northwest. This is another encouraging proof of the awakening interest Britain is displaying in the affairs of her greatest colony. Mr. Davies is being ciceroned by Manitoba's immigration Commissioner, Mr. McCreary, and will undoubtedly have every advantage in the way of studying Canadian resources. We hope a great rush of Welsh immigrants will result from his report when he returns to the land of the leek.

Among the miscellaneous matter in this issue of THE CANADIAN MANUFACTURER our readers will find the tariff resolutions introduced in the Dominion House of Commons. They advance the duty on raw sugar from fifty to sixty-two and one-half cents per cwt. Refined yellow sugar will pay

\$1.08 per cwt. instead of \$1. Sugar will be on the preferential scale next August. Savings bank interest reduced to two and one-half per cent. Preferential tariff applies only to Great Britain and Colonies after July 1st. The collection of duty on raw leaf tobacco will in future devolve on the excise instead of the customs department. The deficit is \$500,000 for the past year.

Cables from London, Eng., announce that Board of Trade returns for March show an increase of £2,757,700 in imports, and a decrease of £813,400 in exports. That is a fair example of the United Kingdom's progress under free trade. Germany and the United States will likely report for the same month a decrease of imports and increase of exports so similar to the above figures that the connection will be easily apparent.

The goods that a newspaper issues have no protection, whereas almost every commodity necessary to the issuing of a paper is made more costly by customs duties.—Toronto Globe.

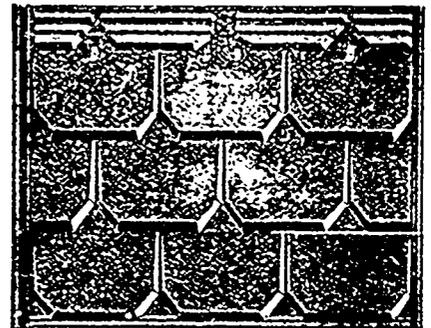
What have our staunch old free trade friends to say about this latest stand taken by their infallible organ? What has the Globe to say for itself? Pockets or principle, Mr. Globe?

During 1896, 466,000 barrels of flour were imported into the British West Indies. Less than 1,500 barrels of it came from Canada. Why shouldn't we supply it all? During the same year the same market consumed 1,935,000 pounds of imported butter. Canada contributed of this but 47,000 pounds. At their average price of forty-eight cents per pound it would pay Canadian dairymen to run a steamship of their own to secure this market.

EASTLAKE STEEL SHINGLES.

GALVANIZED OR PAINTED.

Have been in successful use all through Canada for fourteen years, and have never yet failed to give thorough, economical protection.



One reason for their superiority is a special patent side lock that enables them to be more easily and quickly laid than others, and allows for all contraction or expansion of the metal.

If you want a reliable, durable roof, write us. We'd like to tell you a great many more interesting facts about our EASTLAKE SHINGLES.

METALLIC ROOFING CO. (Limited)

1181 KING STREET W., TORONTO.

The preliminary statement of the mineral production of Canada for the year 1897 has just been issued by the Geological Survey. It shows that the total value of the output was \$28,789,000. Of this about half, or \$13,996,234 worth, is the return from the metallic minerals. The rest, upwards of \$14,000,000, is what was realized for the non-metallic minerals, of which coal is the chief. The value of the coal output was \$7,286,257, rather more than one-fourth of the sum at which the whole mineral output is placed. Another nonmetal running up to relatively high figures is petroleum. The yield for the year is valued at \$1,011,516. Turning to the metals again, we find the showing to be as follows:—

Copper, pounds	13,300,802	\$1,501,660
Gold	6,190,000
Iron ore, tons	71,451	178,716
Lead, pounds	39,018,219	1,396,853
Mercury, pounds	688	324
Nickel, pounds	3,997,647	1,399,176
Platinum	6,600
Silver, ounces	5,558,466	3,322,905

The terms "copper," "lead," "nickel" and "silver," used above, are not to be understood as indicating the respective refined metals. They mean the contents of ore, matte, etc., in fine copper, lead, nickel and silver. The value of the total mineral output exceeds that for the year 1896 by more than \$6,000,000, the production for 1896 being returned at \$22,609,825. The gold output for 1897 was 123 per cent. greater than that for 1896. In silver, lead, copper and nickel the increases have also been very large.

It speaks well for Canada's prosperity that the trans-Pacific steamships have such a rush of applications for westward bound Canadian freight that they will not promise present consignors to move their freight before July next. Every thing is booming in Canada and a period of golden harvest seems to be at hand.

It is reported that the municipal authorities at Warsaw, Russia, are inviting proposals for supplying the town with electrical power for purposes of lighting, tramways, etc. Applications should be addressed to the president of the town of Warsaw, from whom particulars may be obtained. As the proposals will not be considered until some time in August next, there is ample time for the manufacturers and contractors to submit their prices after the rules, regulations and conditions have been sent to them.

The steady advocacy of the metric system in Great Britain is deserving of greater success than has yet attended the efforts of those who have long been urging its adoption there. The subject came up for discussion at the final meeting of the Association of the Chambers of Commerce of the United Kingdom at London last week. A resolution was adopted declaring in favor of the compulsory adoption of the system for both weights and measures within some limited period of time. Resolutions of this kind, or something like it, have been adopted before, and the zeal of the reformers has never seemed to weary, but the system still seems little nearer adoption than it was two decades ago.—Bradstreet's.

The Executive Committee of the Canadian Electrical Association have completed arrangements for the annual convention to be held in Montreal, June 28th, 29th and 30th. A number of very interesting papers have been presented by experts, and in addition to the technical work on the programme, the following interesting features have been presented: Special trolley trip around Mount Royal and up the inclined railway; visits to Bell Telephone new building, street railway power house, Lachine Rapids power house; banquet at Windsor Hotel; visit to Royal Electric Company's establishment, and (by special train) to Chambly Manufacturing Co. The members all expect a good time, as they are acquainted with the Montreal fashion of entertaining.

One of the conceded big things of the year in the way of illustrations is the drawing made by W. L. Taylor picturing Christ's entry into Jerusalem riding on an ass. It was made for Dr. Bradford's article, "The Last Week in the Life of Christ," in the April Ladies' Home Journal. The picture is said by the best critics to be one of the most remarkable illustrations that has ever been made by an American artist, and they insist that it be done in colors, larger in size, for public exhibition.

Outing for April contains a goodly number of capital articles. Among them are: "A Tiger Shoot in India," "Columbia's Athletics," "Camp and Cycle in Yellowstone Park," "Trouting in the Bushkill," "Canoeing on the Iona," "How the Mexican became Humpbacked," "Taxidermy for Sportsmen," "The Last Aztel," "Holland Shooting in the Timber," "The Building of Lawn Tennis Courts," "A Dash for New York," "Summering in an old Italian Castle," "A Springtime Ramble," "With the Canadian N. W. T. Mounted Police," and the usual review of amateur sport for the past month.

Every Canadian Woman should read the story of Maudo's Canada Club in the Canadian Home Journal for April. The health notes by Dr. Bryco and "Food for Children," by Dr. Smuck should be in the hands of every mother.

INGERSOLL-SERGEANT Rock Drills

FOR MINES, TUNNELS AND QUARRIES

PISTON INLET Air Compressors

STRAIGHT LINE
 DUPLEX and
 COMPOUND.

FOR ALL DUTIES.

... COMPLETE MINE EQUIPMENT ...

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CAPTAINS OF INDUSTRY.

The following items of information, which are classified under the title "Captains of Industry," relate to matters that are of special interest to every advertiser on those pages, and to every concern in Canada interested in any manufacturing industry whatever, this interest extending to supply houses also.

If a new manufacturing enterprise of any kind is being started, or an electric lighting plant instituted, or an electric railroad, or a telephono, or a telegraph line is being constructed; or a saw mill, a woolen, cotton, or knitting mill; or if any industrial establishment has been destroyed by fire with a probability of its being rebuilt, our friends should understand that possibly there may be something in the event for them. Do you catch on to the idea?

The starting of any such concern means a demand for some sort of machines, machinery, or supplies, such as steam engines and boilers, shafting, pulleys, belting, lubricants, machinery supplies, wood or iron working machinery, ventilating and drying apparatus; pumps, valves, packing, dynamos, motors, wire, arc and incandescent lamps, and an infinite variety of electrical supplies, chemicals, acids, alkalis, etc. It is well worth the while of every reader of the Canadian Manufacturer to closely inspect all items under the head of Captains of Industry.

Goderich, Ont., will soon have a new grain elevator. Capitalists represented by Mr. Geo. Yarker, of Toronto, have offered to build it.

The Northey Manufacturing Co., Limited, of Toronto, Ont., are building gas and gasoline engines, which furnish reliable, economical and safe power for small manufacturers. The engines are adaptable for many purposes, for instance: Machine shops, brickyards, laundry machinery, farm machinery, printing offices, hoists, wood-working machinery, butchers' machinery, cheese factories, coffee and spice mills, electric light plants, flour and grist mills.

Belcourt & Ritchie, Ottawa, are solicitors for the Alaska and Northwestern Railroad Company, who are seeking incorporation.

J. Y. Griffin & Co., the Winnipeg packing house have increased their capacity from, 200 to 500 hogs per day.

The Jacques Cartier Pulp and Paper Company, of Montreal, Que., has been incorporated. Capital \$28,000.

The Montreal Hotel and Navigation Company, Limited, has been incorporated with \$25,000 capital to do business with headquarters at Montreal.

La Compagnie d'Aqueduc de Richmond, Que., has been incorporated to supply water to the town of Richmond.

The Canadian Pacific Exploration Co. have enough ore blocked out at the Porto Rico property near Ymir, B.C., to last them two years. They will erect a concentrator this spring.

The Wm. Hamilton Company, of Peterborough, Ont., are building six boilers and a complete plant for the C.P.R. sawmill to be erected at Cool Creek, B.C., in the Douglas pine district. The mill will have a capacity of 100,000 feet per day.

New Durham, Ont., cheese factory will put in a butter machine this fall and keep ruining the year round.

Joseph Guilbert, of Windsor Mills, Que., is making extensive additions to his mill and has placed an order with the Jenckes Machine Co., Sherbrooke, Que., for a large quantity of shafting, log handling apparatus, etc.

Stouffville, Ont., wants a tannery. Here is a chance for some ambitious tanner to secure a good opening.

The Cobourg, Northumberland & Peterboro railway contractors are buying rights of way along the proposed route. Engineer Wickstead is at work and an engineer will be placed in charge of each ten miles of the road under construction. It is said the C. N. & P. have bought \$50,000 worth of property in Cobourg, and work began April 1st.

The Jenckes Machine Co., Sherbrooke, Que., are furnishing the Canadian Rand Drill Co. with a handsome compound Corliss air compressor, weighing some thirty-three tons, together with a large air receiver and other accompanying apparatus, bringing the total weight to about forty tons.

Brick manufacturers in and about Toronto, Ont., are preparing for a busy season.

The Shepard and Morse Lumber Company, of Ottawa, Ont., have received a carload of mahogany from Honduras, Central America. It is valued at \$2,000.

W. H. Todd's carriage factory at Stouffville, Ont., is taxed to its full capacity. Mr. Todd reports more orders than any year since he located in Stouffville.

The Dominion Paper Co., Kingsey Falls, Que., are setting up a new wet machine, one of the Jenckes Machine Co's standard seventy-two inch wet presses, shipped them a week or two ago.

ARC LIGHT CARBONS.

Full Lines
Electrical Supplies....

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THE LONDON EMERY WORKS CO., 10/12 VINE ST., CLERKENWELL, LONDON, E. C.

...AGENTS WANTED....

We take pleasure in notifying the trade and all carbon users that we have been appointed agents for the Celebrated HARDTMUTH CARBONS, both cored and solid. Several carloads now on the way. Don't place any orders for Carbons without having our prices for these high grade carbons, as well as for cheaper makes, which are also stocked.

CLOTH AND PAPER.
GLASS & FLINT PAPER.

"Atlas Brand"

"FLORA" Knife Polish
in 3d. Gd. & 1/2 Tins.

Ground, Washed & Flour

WHEELS of highest
quality for general
& special purposes.

Grinding Machinery.



The Munroe Creamery Co., Limited, of St. Charles, Man., has been incorporated.

An addition is being built by Mr. James Kendal to the woollen mill at Washburn, Ont.

A new cheese factory has been erected and equipped at Bath Road, Ont.

The J. R. Booth Lumber Company, of Ottawa, Ont., have disposed of their entire deal cut for shipment this summer. The price was about the same as last year.

The Hamilton Furnace Company, of Hamilton, Ont., got 3,000 tons of ore during the past winter from Darling township, and claim that the ore is unexcelled. Thirty-five teams were employed drawing it to Calabogie station for shipment.

Christopher and William Donaldson's planing mill is in operation at Perth, Ont.

The Montreal Cotton Company, of Valleyfield, Que., are discussing the erection of an additional mill. They are not satisfied with their present arrangements as to taxes, and may build elsewhere than at Valleyfield. Among outside places making a bid for the mill are Three Rivers, Alexandria, Cantlon, Sherbrooke and Quebec.

The new waterworks system of Perth, Ont., has been tested and proves a success. Electric power is used to do the pumping and the system is the first in Canada to have a duplicate plant with both electric and steam power.

The Iron Mask mine, B.C., is putting in one of the Jenckes Machine Co's smaller sizes of hoisting engines.

Ottawa, Ont., is soon to have a large soap factory added to its industries.

St. Andrew's Church, Perth, Ont., will have a ten thousand dollar addition constructed this summer. Seven or eight new residences and a new cheese factory are also to be built, and the Eastern Ontario town will be a busy place for carpenters.

The stockholders of the cheese factory at Sydenham, Ont., have decided to instal a complete plant of butter-making machinery next fall.

Mr. R. F. Watts, of the Agricultural Department at Ottawa, Ont., has invented and patented a roller boat which he claims will easily exceed in speed the invention of Mr. F. A. Knapp, whose boat attracted so much attention last summer in Toronto Bay.

Prescott, Ont., is after a share of the grain trade now controlled by Kingston, Ont. The smaller town has a million bushel elevator and handled 8,000,000 bushels of grain in 1897.

The Smuggler Gold Mining and Milling Company have closed a contract with the Jenckes Machine Company, of Sherbrooke, Que., for a twenty-stamp mill to handle the output of their gold mine at Fairview, Ont., and an aerial tramway from the mine to the mill. The mill is expected to be in operation in three months.

At the War Eagle mine, Rossland, B.C., preparations are being made for the shipment of a large quantity of ore to the Trail smelter. The War Eagle will shortly be operated by electricity.

Black River Pulp Factory at Placentia Bay, Newfoundland, has received a quantity of machinery for the equipment of extensions now in progress.

The British Columbia Gold Fields Co., of Toronto, have recently placed an extensive order with the Jenckes Machine Co. for a ten stamp battery complete with two vanners, two ore feeders, grizzly, Blake-Marsden Crusher, and all the various apparatus making up a complete modern milling plant. The outfit is to be delivered at Nelson, B.C.

Messrs. Moodie and Estelle are persevering against many obstacles in sinking a shaft to bed rock at the mouth of Canyon Creek, near Nelson, B.C. They have had to put in steam pumps to keep down the water.

Development work is being pushed on the Slocan Star, Slocan, B.C., and ore shipments must soon be resumed.

Manager Ryan of the Antoine mine, Slocan, B.C., reports a strike of eighteen inches solid ore in No. 2 drift at a depth of 200 feet. It assays 330 oz. silver and fifty per cent. lead.

Thirty men are at work on the Emily Edith, on Four Mile, Slocan, B.C.

The Eden Bank Creamery Company, of Sardis, Ont., report that the demand is in excess of their supply. They state that they could sell a ton of butter per week.

British Columbia business still continues brisk. The Jenckes Machine Co., Sherbrooke, Que., report the demand for mining machinery as being quite active.

E. A. WALLBERG, C.E.,

Bell Telephone Building, - MONTREAL, QUE.

HEAD CANADIAN OFFICE FOR

KINGSLEY WATER TUBE BOILERS

Manufactured in Montreal,
Ottawa and Toronto.

*For Steam, Power
and Hot Water
Installations...*

*The Most Economical Boiler,
and the Cheapest, when
based on Evaporat-
ing Capacity.*

Can be installed in any Basement
requiring only 6½ feet in height.

GUARANTEED: A Saving in Fuel of 30 per cent. over Return Tubular Boilers.
A Saving in Fuel of 50 per cent. over any Cast Iron Heater.

...Catalogue Free.

The site for the new elevator at Midland, Ont., has been chosen, and it will be completed by June 1st. It will be operated by electricity, and is to be of 1,000,000 bushel capacity.

A movement is on foot to establish a grist mill at Lakeside, Ont., to be owned and operated by a joint stock company composed of farmers living in that vicinity.

William McVicar, McVicar, Ont., is putting a Dake Steam Feed into his mill. This feed was built by the Jenckes Machine Co., Sherbrooke, Que., with whom the Phelps Machine Co., Eastman, Que., formerly Canadian manufacturers of the Dake Engine, have been amalgamated.

An addition is to be built to the post office at Asgrove, Ont.

T. Board's boiler room at Glen Williams, Ont., has been supplemented by a fifty h.p. boiler.

Messrs. Reid & Graham, Glen Williams, Ont., report plenty of business at their big sawmill. They are turning out large quantities of shingles.

John Inglis & Sons, of Toronto, Ont., are constructing a boiler for the Muskoka Lumber Company, of Gravenhurst.

The Burnes Saw Works, Dundas street, Toronto, will shortly change its style to E. R. Burnes & Co. Mr. Caldwell and Mr. Thompson are leaving the firm, and Mr. Wm. Rankin will become a partner.

A. Gagnon & Co., Victoriaville, Que., are adding one of the Jenckes Machine Co's standard boilers to their equipment.

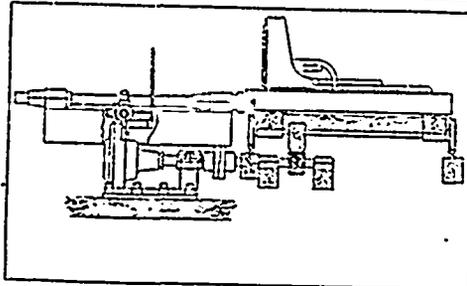
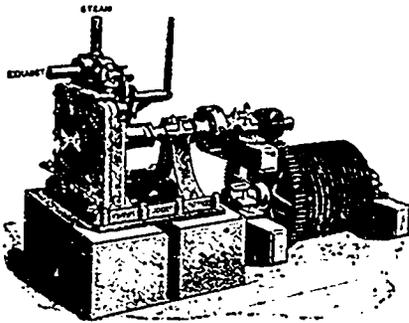
The Canadian Acetylene Company, Limited, of Lewis, Que., has been incorporated with \$50,000 capital.

A new cheese factory is being built at Bismark, Ont., and will be ready about May 1st.

The Wm. Hamilton Co., of Peterborough, Ont., are building a pair of heavy engines for a line of steamers which Mr. J. A. Mara, of Yale, B.C., is putting on the Stickine River route. They are for a stern wheel steamer. The connecting rods are twenty-four feet from crosshead to crank pin, and the cylinders are seventeen inch bore and six foot stroke. The boiler is of the locomotive type and the furnace is 7x6 feet inside. These engines will be duplicated for C.P.R. steamers on the Vancouver and Fort Wrangel route.

The Shipton Electric Light and Power Co., of Danville, Que., have received a Crocker Turbine from the Jenckes Machine Co., Sherbrooke, Que., who are proceeding with the installation of the same together with the penstock and draft tube.

During January and February the C.P.R. landed over one thousand carloads of merchandise at Nelson, B.C.



THE DAKE STEAM FEED

EMBODIES THE FOLLOWING ADVANTAGES :

- Simplicity of Construction.
- Small Space Occupied.
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Easy Adaptation to either New Mills or those now in use.
Positive and Easy Control. Cheapness.

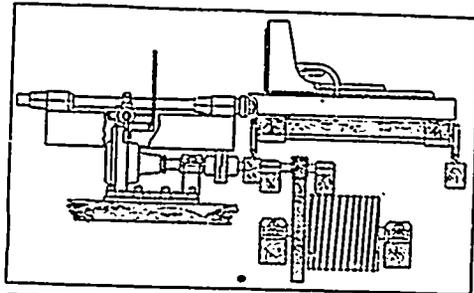
The movement of the engine in either direction is under the absolute control of the Sawyer, thus accommodating the speed of the feed to the size of the logs.

Mill men, who have used other makes of Steam Feeds, comment favorably on the economical use of steam of our Feed over others.

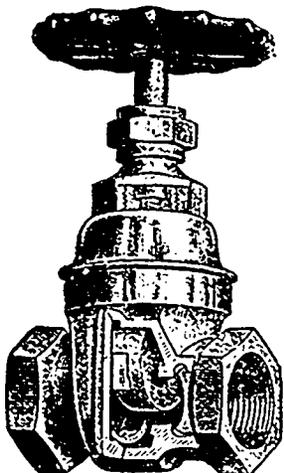
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Succeeding the Phelps Machine Co., Eastman, Que.



The WEBBER Patent Straitway Valve



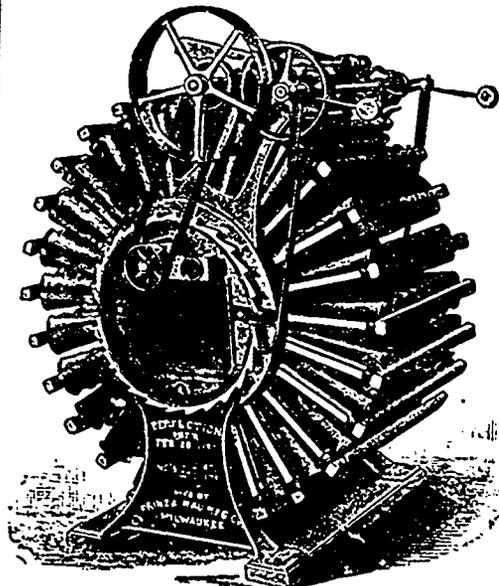
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Steam,
Water
OR
Gas...

EVERY
VALVE
TESTED.

The Kepp Engine Co., (Limited),
WALKERVILLE, ONT.

Sole Manufacturers for Canada. Send for Price List.

The Perfection Dust Collector.



Patented

The only machine with a perfect Automatic Cloth Cleaning Device.

We Guarantee it to collect absolutely all the Dust, and discharge the air free and clean.

We Guarantee it will not make any back pressure against the fan.

Wm. & J. G. Greey,
2 CHURCH ST.,
TORONTO, - ONT.

Sole Licensees for Canada.

The Klondike Exploration Company, Limited, has been incorporated with \$37,500 capital and the customary mining powers, etc.

The C.P.R. are making extensive improvements at the Trail, B.C., Smelter, and expect to be ready to handle ore about July 1st.

The Royal Paper Mills Co. have recently added a complete rope drive to their transmission machinery at the East Angus Mill. This was furnished by the Jenckes Machine Co., Sherbrooke, Que., who are furnishing the entire tank work together with the accompanying machinery. East Angus presents a scene of great activity, carload after carload of material arriving and being placed in position. When completed, this mill will take a prominent place among the producers in the pulp and paper trade.

Negotiations are in progress looking to the transfer of the charter of the Peterborough, Ont. and Ashburnham Street Railway Company to the new company which expects to run an electric line to Chemong.

Havelock, Ont., is agitating for a telephone exchange.

It is stated that the C. P. R. will shortly erect a big hotel in Toronto. They are said to have an option on the Carling property opposite the Union Station.

Smith's Falls Ont., Methodists expect that proposed alterations to their church will cost \$25,000 this summer.

The death of Mr. James Warnock, of James Warnock & Co., edge tool manufacturers, of Galt, Ont., has caused a change in the management of the business, which will in future be conducted by Mr. F. H. Hayhurst, formerly with Messrs. Van Tuyl & Fairbank, of Petrolia, Ont. Mr. Hayhurst's well-known ability is guarantee of the firm's continued success.

Claremont, Ont., has an agitation afoot to secure telephone connection with the outside world. They will probably run a four-mile line to connect with the Stouffville-Uxbridge line.

The Electric Reduction Co., of Buckingham, Que., are proceeding to develop their water power, and as a first step have placed an order with the Jenckes Machine Co., Sherbrooke, Que., for a pair of their forty-five inch Crocker Turbines, to be installed complete with wheel cases, draft tubes, governor, etc.

Mr. George Gooderham, of Toronto, has had plans prepared for kennels which will be built on the Danforth Road, east of Toronto. The establishment will be the finest of the kind in America. A handsome cottage will be erected on the premises.

The Rossland, B. C., branch of the Jenckes Machine Co., recently placed a No. 5 Cameron Pump with the Centre Star mine, also a No. 6 with the Monte Cristo.

On the afternoon of April 1st, fire in the window shade factory of Geo. H. Hoes, Sons, & Co., 276 Davenport Road, Toronto, caused damage to stock of \$25,000 and damage to building of \$10,000. A row of brick residences adjoining suffered somewhat in the conflagration.

Mr. Armstrong McCormack, of Kingston, Ont., has offered to organize a syndicate to build another cotton mill, if the citizens of the Limestone city will vote a \$50,000 bonus.

Yarker, Newburg, Camden East, Napanee Mills and Napanee, Ont., will all soon be lighted by incandescent light from plants at Newburg and Napanee.

The Kenneth Mining and Development Co., at Rossland, are making an addition to their equipment in the shape of a 7x10 double cylinder hoisting engine, with boiler and all appliances complete, supplied by the Jenckes Machine Co., Sherbrooke, Que.

The Megantic Pulp Company, Megantic, Que., are defending themselves against complaints from the corporation of Agnes, which claims to be the sufferer from a rise of water caused by their mill-dam.

THE - - - -

WM. HAMILTON MANUFACTURING CO., Limited

MANUFACTURERS OF

THE "RELIANCE"

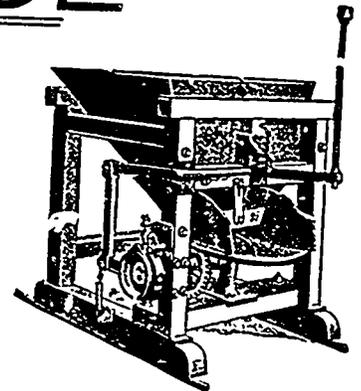
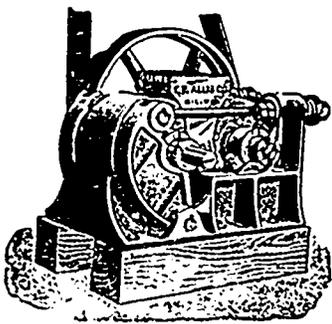
Mining, Milling

AND

Smelting Machinery

FOR THE DOMINION OF CANADA

(Under License from The E. P. ALLIS CO., Milwaukee, Wis.)



Crushers, Rolls, Jigs, Concentrators, Screens, Stamps, Pumps, Compressors, Hoists, Boilers, Engines, Water Wheels, Etc.

Branch Office
VANCOUVER, B.C.

 PETERBOROUGH, ONT.

The Ajax and Pilot Bay have been added to the list of shipping mines in the Slocan, B.C.

The Twin mine in the Ainsworth, B.C., district will shortly be re-opened and its working extended.

The Bolt and Forge Company, of Swansen, Ont., have taken on a number of extra hands, and all their employes are working till 8 p.m.

The following building permits were recently issued in Toronto, Ont.: Eckardt Casket Company, five-story office and warehouse, 66 Esplanade west, cost \$6,500; Trustees' Bible Training School, two-story brick and stone building, 106-108-110 College street, \$15,000; Toronto Electric Light Company, wood and galvanized iron coal shed, Esplanade street, \$3,000, and a brick and steel power station, \$10,000.

Two waiting rooms for immigrants have been added to the Windsor street station of the C.P.R. at Montreal.

James Goldie & Sons, of Guelph, millers, are applying for incorporation to carry on their present business with a capital of \$100,000.

High water in the St. Lawrence extinguished the fires in the Hochelaga cotton mill, below Montreal, and threw over a thousand employes out of work for a few days. The damage to the mill was trifling.

A number of Montreal capitalists have incorporated the Canadian Acetylene Company, with a capital stock of \$50,000.

Coates & Mosher, Fort Francis, Ont., are building a steamboat to ply on Rainy Lake, on the Mine Centre, Rainy Lake City and Bell City route.

The C.P.R. have purchased the Troop wharf and warehouses at Fort Wrangel, Alaska, for \$12,000. They will be used in connection with the C.P.R. boats to Telegraph Creek.

The Geo. Reid Co., of Toronto, Ont., have installed a fancy blanket napping machine for the Standard Woollen Co., of Toronto, Ont.

The Merchants Telephone Co., of Montreal, Que., have obtained authority to increase their capital to \$1,000,000.

The extension of the Toronto, Ont., Street Railway system to Oakville is said to be on the tapis for this summer.

The London and Lancashire Life Assurance Co. will shortly erect a large building at St. James and St. John Sts., Montreal, P.Q.

A 400 foot water chute is being built by the Hull Electric Co. at Alymer, P.Q.

Halifax, N.S., is discussing the installation of a municipal electric light plant.

The Canadian General Electric Co. will install two 55 Kilowatt moderate speed current dynamos for the Laurentide Pulp Co., Grand Mere, Que.

The Geo. Reid Co., of Toronto, Ont., have put in a number of broad looms for Waterhouse & Bradbury at the Ingersoll, Ont., woollen mills.

Mr. H. Hilburn, late of the Montreal Street Railway, has become manager of the Berlin & Waterloo, Ont., Street Railway.

The Robb Engineering Co., Amherst, N.S., are building two 150 h.p. Robb-Armstrong engines for the St. Thomas, Ont., Street Railway.

The Morris group of mines in East Kootenay, B.C., have recently been sold to an English syndicate.

MACHINERY and EQUIPMENT FOR Mines



MANUFACTURED BY

Canadian Rand Drill Co.,
MONTREAL.

A. KLIPSTEIN & CO.

122 PEARL STREET, NEW YORK.

Anilines, Dyestuffs and Chemicals.

DELIVERY MADE AT NEW YORK, MONTREAL OR HAMILTON.

WRIGHT & DALLYN,

AGENTS,

HAMILTON, IONTARIO.

Phosphorous,
Pure Sal. Ammoniac,
Chemicals Muriate Ammonia,
Sal. Soda,
Bicarb. Soda,
Hyposulphite Soda, Epsom Salts.

FINEST QUALITY.

Manufacturers Prices and Terms.

Arthur P. Tippet & Co., MONTREAL.

Canadian Agents.

ABBAY IMPROVED CHILLED SHOT CO.

(LIMITED)

NEWCASTLE, GREAT BRITAIN.

THIS SHOT IS NOW MADE BY A NEW PROCESS.

Samples sent on application.

Read the following Reports on our New Make of Shot:—
Sporting Goods Review states:—"The size and shape of pellets are good and are exceedingly hard. We understand that the demand for this shot has considerably increased and gaining in favor with sportsmen, to whom its excellence of manufacture appeals."

Arms and Explosives states:—"For soundness and general regularity of surface the pellets possess a very high degree of excellence."

W. W. GREENER, "the Great Authority on the Gun," speaks highly of Chilled Shot, and strongly recommends it in preference to soft shot.

The Hudson Bay Knitting Company, of Montreal, are asking for further letters of incorporation.

The Montreal Hardware Manufacturing Company, Limited, of Montreal, P.Q., have obtained a charter of incorporation.

The New Waldon Ranch Co., of Montreal, P.Q., have applied for incorporation.

The Duplessis Pegging and Sewing Co., of St. Hyacinthe, P.Q., have applied for incorporation.

The Montreal Boot and Shoe Manufacturing Co., of Montreal, P.Q., are asking for incorporation.

The Rock Forest Gold Mining Company, Limited, of Montreal, P.Q., are applying for letters patent.

The Galt, Preston & Hespeler Electric Railway are seeking permission to run a switch in to factories and foundries on Water Street, Galt, Ont. This railway is also asking \$40,000 bonus to extend its line to Berlin and Waterloo. Ont.

Galt, Ont., is advertising for tenders for the construction of a new fire hall.

The Metallic Roofing Company of Canada, Limited, Toronto, Ont., are supplying a handsome metal ceiling for the Walker House of that city.

The Goldie-McCulloch Company, of Galt, Ont., have bought the Cant property and will add it to the site of their proposed factory extension.

The Amherst Prospecting and Milling Co., Limited, of Amherst, N.S., are applying for incorporation.

Fred Chalcraft, formerly manager of the Farmer's Binder Twine Co., Brantford, Ont., is starting a factory in that city to manufacture bolts and nuts and machine screws.

The Verity Plow Works, Brantford, Ont., have commenced building their new factory.

The Gould Bicycle Co., Brantford, Ont., are working two gangs 20 hours a day and are still behind on orders. They will enlarge their works this year.

J. Ballantyne & Co., Preston, Ont., shipped the following machines during last week: An automatic back knife gauge lathe to Knetchel Furniture Co., Hanover, Ont.; one surface planer to Rhodes Curry & Co., Amherst, N.S.; a No. 2 power feed rip saw and a dimension saw to J. Peggott & Son, Chatham, Ont; an improved sash sticker to J. Dempster & Co., Halifax, N.S.; a new variety shaper to McPherson & Shell, Alexandria, Ont.; and a four sided revolving bed moulder to R. F. Houston, Tweed, Ont.

"Smokeless Heat" is a catchy title for a catalogue. When you investigate the contents of such an oddly entitled volume, you will find very interesting information to all users of boilers. The merits of the Jones Underfeed Stoker are set forth in unmistakable terms that will attract you to further research into its merits, and in addition to this, you will learn many valuable points about a power plant of which you have hitherto been ignorant, unless you have studied the subject more than most of us. If you are a power user you will do yourself a kindness by sending for a copy of this little treatise to the General Engineering Co., of Ont., Limited, 80 Canada Life Building, Toronto.

D. K. McLaren's belting, card clothing and mill supplies house, of Montreal, P.Q., write us that they have opened their belt factory at 16 Victoria Square, Montreal. Their belting is all first grade English oak stock, and they have put in machines of the most modern type, and are operating their factory entirely by electricity.

A new steam plant has been installed in the Golden Crown mine, the Boundary Creek, B.C.

The Golden River Quesnelle, (B.C.), Co. have dammed the River Quesnelle and expect great things.

THE TORONTO PATENT AGENCY, (LIMITED) . . . TORONTO, CAN.

Head Office, 79, 80, 81 Confederation Life Building.
CAPITAL, \$25,000.00.

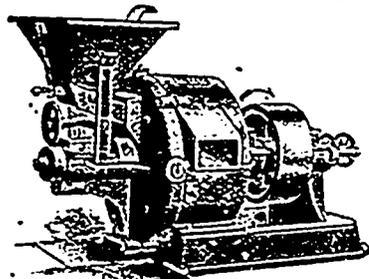
Patents obtained. Patents sold on commission. Provincial rights sold. Most actual sales. Best results. Quickest work. Honest Treatment. Oldest company. Reliable references. All patent business promptly attended to. Valuation and prospects of any patent furnished on application.

The DRIER the STEAM the GREATER the POWER.

"Eureka"



OUR SECTIONAL PIPE AND BOILER COVERING
Almost Entirely Prevents Condensation of Steam when Passing Through the Pipe
EUREKA MINERAL WOOL & ASBESTOS CO.
132 BAY STREET, TORONTO.
ASBESTOS GOODS. MINERAL WOOL. ENGINE PACKING.



ROCK EMERY MILLS
CRUSHERS AND MILLSTONES.

FRENCH BUHR AND ESOPUS STONES. *Send for Circular.* **STURTEVANT MILL CO.**
BOSTON, MASS.



THE CROCKER IMPROVED . . . TURBINE.

A HIGH-GRADE, MODERN WHEEL—ECONOMICAL AND EFFICIENT IN THE HIGHEST DEGREE

The best combination of hydraulic science with practical results now on the market. Complete Water Power Plants built and installed.

The JENCKES MACHINE CO., 28 Lansdowne St., SHERBROOKE, Que.

SEND FOR OUR NEW CATALOGUE
JUST ISSUED.
It will interest you.
Our Prices will Please,
and to Purchase
Our Machinery will Pay you.

Cream separators have been sold in large numbers by Winnipeg, Man., dealers this spring.

Calgary, N.W.T., is offering a bonus of \$25,000 to the C.P.R. to locate their repair shops at Calgary. This would mean a pay roll of \$6,000 a month at Calgary.

The Hudson Bay Company have made large flour shipments from their Prince Albert mill during the past winter.

Metcalf & Son, Portage La Prairie, Man., will build a 10,000 bushel elevator at the Pioneer Oatmeal mills.

The Farmers Elevator Co., of Cypress River, Man., will bonus a flour mill.

It is said that the Tangier Mining Company, Revelstoke, B.C., will construct a railway to the C.P.R. and build a smelter on the Illecillewaet River.

The Silver Cup Mine, Trout Creek, B.C., is being rapidly developed and will shortly ship 200 tons of ore. This mine is the property of the Canton, Lilloet & Fraser River Company.

The Allen Manufacturing Company, of Toronto, are negotiating for the purchase of 165 feet of land to erect a big addition in the rear of their present factory at 105 Simcoe Street.

We are in receipt of the announcement of Alonzo W. Spooner, setting forth the manifold advantages of Spooner's Copperine and containing capital testimonials to its value for mechanical purposes.

The Westinghouse Electric and Manufacturing Company has just opened a new branch office at Austin, Texas. Mr. J. E. Johnson will have charge of the office and of the further extension of Westinghouse business in the Southwest. The large contracts which this company has been handling in Mexico and the Texas region have led to the establishment of this new centre of electrical trade.

Messrs. Vivian & Sons, of Swansea, Wales, and the Elhois Metal Company, of Burryport, South Wales, have, as a result of the success of trials, decided to come into the British Columbia market for the purpose of smelting all kinds of ores and furnace products, and the principals of the firms are now en route to Canada to study the possibility of successfully establishing smelting works in Vancouver, B.C. In the meantime, spot cash will be paid here for any quantity or quality of ore, on their agent's certificate, to any shipper, large or small. W. P. Harvey, F.C.S., is their representative at Vancouver.

Fur men report that trappers have had but little luck during the past winter.

Messrs. Sadler & Haworth, oak leather belting, Toronto, Ont., are favoring their friends with a very neat foot rule made of spring steel and folding into a flat leather case. The rule is marked off in 16ths of an inch, and is a very convenient article.

John Colter has sold his carriage factory at Souris, Man., to D. Petty, of Douglas.

Thomas Lee, late of Bryant & Lee, Winnipeg, Man., is opening a cigar factory at Winnipeg. It will be known as the Western Cigar Factory.

The Gurney Foundry Company, of Toronto, Ont., contemplate opening a branch in Winnipeg, Man.

The dry kiln at the Alvinston, Ont., Stave and Heading Works was burned down last week.

Knox church, Stratford, Ont., is about to be enlarged at an estimated cost of \$10,000.

A. C. NEFF, Chartered Accountant. JAMES WOOD, Late Sec. The T. Eaton Co., Ltd.
NEFF & WOOD
 PUBLIC ACCOUNTANTS, AUDITORS
 ASSIGNEES, ETC.
 Room 500 McKinnon Bldg., Toronto

GEORGE WHITE-FRASER.
 Member Can. Soc. C.E.
 Member Am. Inst. Elec. Eng.
CONSULTING and Electrical Engineer.
CONSTRUCTING
 Railways, Lighting, Power Transmissions,
 Factory Plants, Reports, Specifications, Tests.
 18 Imperial Loan Building,
TORONTO.

H. F. STRICKLAND,
 Electrical Contractor.
77 ADELAIDE ST. E., TORONTO.
 Telephone 1838.
 SPECIALTY:—Electric Wiring, by skilled men.
 All work done according to latest methods, at
 lowest possible prices. Complete Isolated Plants.

FOR SALE CHEAP.
 Complete outfit for the
 manufacture of
METALLIC LETTERS AND FIGURES,
 used by all foundries and machine shops
 to put on patterns; also a number of
LETTERS AND FIGURES already
 finished, from 1 inch up to 1 1/2 inches.
 Profits large, good reasons for selling.
 Address.....
GEO. H. EVANS,
110 JAMES ST. NORTH, HAMILTON.

Progressive Manufacturers use the....
Blackwell up-to-date VARNISHES
For Finishing....
 Pianos, Carriages and Railway Coaches.
MADE IN TORONTO.

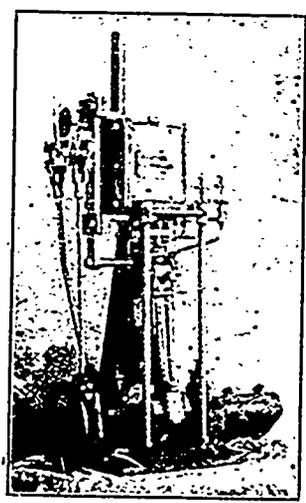
ROBT. A. ROSS, E.E.,
 Consultant to Canadian Pacific Ry.,
 and Boiler Inspection Co.
CONSULTING ENGINEER.
 Specifications, plans, advice upon Steam and
 Electric Plants, Power transmission and dis-
 tribution. Special machines designed.
 17 St. John Street, MONTREAL.

PATENT FOR SALE.
 Canadian Patent No. 5318 relating to ap-
 paratus for rapidly discharging cargo from
 vessels, whereby the necessity of shovelling
 grain, coal, etc., in small quantities is avoided.
 Apply to
JOHN W. GLAHLIN,
 Nanaimo, B.C.

Leitch & Turnbull
 Canada Elevator Works,
 Queen and Peter Streets, Hamilton, Ont.
POWER ELEVATORS
 Patent Safety Hydraulic... Hand and...
 Telephone Connection.

WM. BARBER & BROS.
GEORGETOWN, ONT.
 Manufacturers of
BOOK AND FINE PAPERS

ALBERT BELL ENGINE WORKS
DUNNVILLE, ONT. Makers of
YACHT ENGINES, 1 H.P. to 30 H.P.
Safety Water Tube BOILERS
PROPELLER WHEELS
Stationary Engines and Boilers



WRITE FOR CIRCULARS
FLEMING & CHAPIN, **TAPES** Common Superfine Extra Superfine
 229-231 Church St.,
 PHILADELPHIA.

CARBONIZER A neutral sub- stance, harmless to animal fibre or tissue, while it destroys burrs, etc., as efficiently as acid. It leaves the wool in fine condition. Manufactured by the Merrimac Chemical Co., 13 PEARL ST. BOSTON.

BOILERS.
 YOU WANT THEM. WE MAKE THEM
 WRITE FOR PRICES
BANNERMAN & FINDLATER,
 Boiler Makers, OTTAWA, ONT.

WANTED
 Mechanics, Engineers and Firemen to enclose 20 cents in stamps for Working Model of Valve for Steam Engines.
 Address, H. F. LOWE, M.E.,
 Patent Solicitor,
 Confederation Life Bldg., Toronto, Canada.

Send for Catalogue and Price List to
THE JOHN MORROW MACHINE SCREW CO.
INCERSOLL, ONT.
 Mfrs. of Set, Cap and Spur Screws, Nuts, Pinholes, Nails, &c.

J. ALEX. CULVERWELL,
 DISTRICT AGENT
 Toronto and District.
Royal-Victoria Life
 (HEAD OFFICE MONTREAL)
 5 King Street West, - TORONTO.

ROOFS FOR THE KLONDIKE



Roofs must be chosen with care and judgment in any country, and especially so in Canada.

All our products are constructed for use in Canada, and ample provision is allowed for contraction and expansion, and we guarantee them to be water, wind, and storm proof.

Up-to-date information and fully illustrated catalogues of Steel Roofings, Sidings and Ceilings sent free for the asking.

The Pedlar Metal Roofing Co.
OSHAWA, ONT.

The Electrical Construction Company, of London, Ont., have opened a branch at 42 York Street, Toronto, Ont. Mr. Joseph Barrett is their Toronto representative and will be pleased to give estimates on electrical work of all kinds.

KERR Water Motors

1/8 to 20 HORSE POWER.

Noiseless Running, Require No Attention, operated with water at a pressure of 30 pounds and upwards.



Reliable intending purchasers can have our Motors on trial by writing us, stating water pressure available, power required and class of work to be done.

Our Motors are sold on their merits. Our prices are low. Enquiries solicited and cheerfully answered.

... WRITE US ...

KERR WATER MOTOR CO.,
NIAGARA FALLS, CANADA.

Brantford, Ont., city council have resolved to dispense with gas lamps for street lighting. This will necessitate the addition of 100 arc lamps and seventy incandescent lamps to the system. Tenders for lighting and tenders for a plant to be operated by the city will likely be asked for.

The Berlin Felt Boot Works, of Berlin, Ont., report large sales in the Northwest Territory that will keep them running overtime for months to come.

The J. B. Snider Furniture Company, of Waterloo, Ont., last week shipped a consignment of office desks to Buenos Ayres, on the La Plata River, South America.

The Bright Cheese Mfg. Company, Bright, Ont., are building a large addition to their factory.

The Simpson-Werner Furniture Company, of Berlin, Ont., will erect a large extension to their factories this summer.

The Guelph, Ont., Paving Company have secured the contract to lay granolithic walks in Brockville.

Paris, Ont., has made a contract with the Paris Electric Light Co. for street lighting at twenty-three cents per light per night.

Robert Whitelaw, of Woodstock, Ont., has secured the right to manufacture the Shepherd Vertical Engine in Canada. This engine has had a large sale in the United States, and Mr. Whitelaw reports having received several orders already for engines for Canadian parties.

The Tree Rotary Engine Company, of Woodstock, Ont., held their first meeting of shareholders on Thursday, April 7th. Officers elected were:—Louis Kaufmann, president; A. J. Wilson, vice-president; J. A. McKay, secretary-treasurer. Messrs. Kaufmann and McKay are managing directors.

D. M. McPherson, Huntingdon, Que., has installed in his creameries a Shepherd Vertical Engine manufactured by Robert Whitelaw, of Woodstock, Ont.

Woodstock, Ont., is negotiating with a capitalist who proposes to establish a felt factory in Woodstock.

The New Hamburg Milling Company, of New Hamburg, Ont., have completed remodeling and enlarging their mill. They have installed the most modern machinery and added greatly to the equipment.

Paris, Ont., proposes to purchase a new street sprinkler.

The Edmonton District Railway Company, of Edmonton, N.W.T., are applying for permission to extend their lines from the Athabasca to the Peace River, thence to the Pelley and down to the Yukon.

The Montreal Electric Company are sending out to their friends cards announcing their removal from 302 St. James Street, Montreal, to more commodious premises at 1898 Notre Dame Street, in the Balmoral Block in the same city. Their increased business necessitated the securing of larger premises.

Peterboro, Ont., suffered from a big blaze last week when the pump and planing mill of Mr. G. Walter Green was destroyed. The building was owned by the Dickson Lumber Company, of Peterboro. The damage is estimated at \$20,000.

John Bready is removing his carriage factory from Drayton, Ont., to Hollen, Ont.

The Montreal Locked Wire Company, of Montreal, Que., have dissolved.

Elzear Provost & Co., carriage makers, Montreal, Que., have dissolved.

Felts for Pulp Mills

20 years in the business—the first to make Felts in Canada; capacity 1,000 lbs. per day. All our Felts will last longer and make dryer Pulp. All up-to-date mills use our Felts. New mills, when in need, write for samples and prices.

HAMELIN & AYERS, Lachute Mills, P.Q.

ELECTRIC REPAIR & CONTRACTING CO.

GEO. E. MATTHEWS, Manager. 621 LaGauchetière St., MONTREAL TEL. 2177.

COMPLETE ELECTRIC PLANTS INSTALLED.

ELECTRIC APPARATUS OF ALL KINDS REPAIRED ON THE SHORTEST NOTICE.

Armatures Rewound for all Systems. Commutators Refilled. Write us, our Prices are reasonable and work good.

FOR SALE!

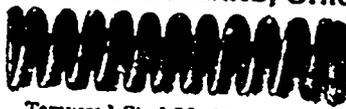
Premises recently occupied by THE A. S. WHITING MANUFACTURING CO., CEDAR DALE.

Consisting of Valuable Water Privileges, Buildings, and about Twenty Acres of Land.

APPLY TO.....

H. R. LUKE, Oshawa, Ont.

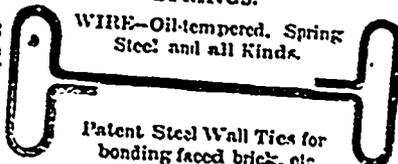
CLEVELAND WIRE SPRING CO.,
CLEVELAND, OHIO, U.S.



Tempered Steel Machine Springs A Specialty.

SPECIAL SPRINGS of all description to order, and for Upholstery, Furniture, Beds, Chairs, etc. Close prices upon application.

TEMPERED STEEL MACHINE SPRINGS.



WIRE—Oil-tempered, Spring Steel and all kinds.

Patent Steel Wall Ties for bonding faced brick, etc.

The Blind River Towing Company, Limited, of Blind River, Ont., has been incorporated with \$10,000 capital.

The St. Denis Land Company, Limited, of St. Denis, Que., has been incorporated. It has power to construct houses, tramways, etc. Its capital stock is \$100,000.

The Dowitt-Langlois Milling Company of Montreal, Limited, has been incorporated with a capital of \$90,000.

The Arctic Ray Mining Company, Limited, has been incorporated with a capital stock of \$500,000.

The United Asbestos Company are about to re-open their works at Broughton, Que., on the Q.C.R.

Huntingdon, Que., is offering mill property, water power and tax exemption for twenty-five years to the Montreal Cotton Company. Every effort will be made to secure the location of the company at Huntingdon.

In another column appears an advertisement offering for sale the Canadian rights to an invention of John W. Glaholm, Nanaimo, B.C. This invention relates to apparatus for discharging cargoes from vessels, its object being to expedite and facilitate the discharge and to avoid the necessity of shovelling or otherwise handling the cargo in small quantities. According to this invention tunnels or other passages are provided in the lower parts of the cargo spaces of the vessel, and cars, wagons or the like are provided to travel in these tunnels; in the walls of the tunnels are doors or valves adjustable mechanically or otherwise, and preferably shoots, by which latter when the doors or

valves are opened, the contents of the cargo spaces are delivered into the cars or wagons. The cargo spaces are preferably so shaped that their contents will tend to gravitate to the delivery openings. Suitable vertical shafts and hoists, or inclined passages wire rope-ways or the like are provided to enable the loaded cars or wagons to be rapidly run out of the ship and brought back to the loading spouts with equal facility.

Stratford, Ont., citizens are debating whether to extend the old city hall or have a new structure erected for municipal purposes.

The Gutta Percha and Rubber Mfg. Co's price list and circular is to hand. It enumerates every imaginable description of rubber footwear, from the firm's well-known "Maltese Cross" hip boots and heavy lumbermen's goods, to the very daintiest of sandals and croquet slippers for fair feet that should never touch even the dew drops. The Maltese Cross on rubber goods is a guarantee of quality.

We are in receipt of the handsome catalogue of E. Leonard & Sons, manufacturers of engines and boilers, London, Ont., with branches at Montreal, Que., and St. John, N.B. They build simple, tandem compound and cross compound Leonard-Ball automatic cut-off engines; Leonard-Tangye engines, Leonard engines, standard stationary boilers, locomotive boilers, upright boilers, standard upright heaters and purifiers, portable automatic engines, shaking grate bars, hoisting engines, steam pumps, injectors, engine governors, brass and iron pipe safety valves, and other goods. This old and reliable firm began business in 1854, at St. Thomas, Ont.,

and in 1858 removed to London, where they have been ever since. The merits of their wares are fully set forth in their catalogue which intending purchasers of engines or boilers will find full of interest.

The Glasgow & Montreal Asbestos Co's mines at Black Lake, Que., will be operated this season by Mr. Matthew Penhale, formerly manager for the company.

Chrome iron is being mined at Black Lake, Que. Since the mines were discovered three or four years ago their product has realized some \$200,000.

The Ottawa, Ont., parties who secured the Gagne and Kobold mines at Rat Portage, Ont., have sold out to a syndicate of British capitalists.

Chrysler & Bethune, Ottawa, Ont., are solicitors for the British Yukon Mining, Trading and Transportation Company, who are applying for incorporation.

The Canada Atlantic Railway are applying for permission to run a line to connect with United States lines, and also for railway entrance to Montreal, Que.

Rails have been laid on the Port Burwell Railway as far as Otter River.

Architect Mayfield, of Leamington, Ont., will build a \$7,000 town hall and Oddfellows building in Essex, Ont.

Mr. Wm. Hockin, of the Petrolia Barrel Works, Petrolia, Ont., has patented a new steel barrel. Mr. Hockin is eighty-two years of age.

The New York Bridge Company will amalgamate with the Brockville and St. Lawrence Bridge Company, of Brockville, Ont.

As All Should Know.

Westinghouse Apparatus does not rely upon Westinghouse Advertisements.

Westinghouse Advertisements rely upon Westinghouse Apparatus.

Westinghouse Experiments are made in the Westinghouse Works and not on the Westinghouse Customers.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

New York, Boston, Chicago, Philadelphia, St. Louis, San Francisco, Buffalo, Syracuse, Atlanta, Tacoma, Mountain Electric Co., Denver. For Canada, Ahearn & Soper, Ottawa. Westinghouse Electric Co., Limited, 32 Victoria St., London.



Canadian Colored Cotton Mills Company

1898—SPRING—1898.

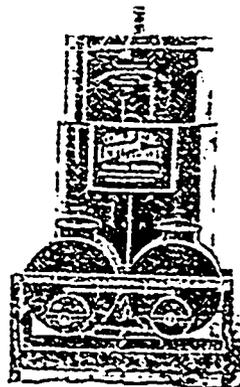
•••

Cottonades, Tickings, Denims, Awnings, Shirtings, Flannelettes, Gingham, Zephyrs, Shirtings, Dress Goods, Lawns, Crinkles, Cotton Blankets, Angolas, Yarns, etc.

WHOLESALE TRADE ONLY SUPPLIED.

D. MORRICE, SONS & CO., Agents,
MONTREAL and TORONTO.

SUN LIGHTING MACHINE



ACETYLENE GAS.

THE ACME OF PERFECTION IN LIGHTING

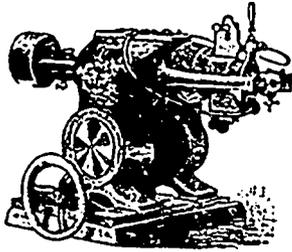
... At the Minimum of Cost....

Suitable for any place where Artificial Light is required. Dwellings, Stores, Churches, Factories, Hotels, Street Lighting, etc.

Write for Catalogue.

THE
Acetylene Lighting Co.
(LIMITED).
LONDON, ONTARIO.

Jones & Moore Electric Company



Manufacturers

Dynamos and Motors

Direct Connected or Belt Driven.

COMPLETE PLANTS INSTALLED
At Lowest Prices.

A few Second-hand Machines in stock.

22 ADELAIDE ST. WEST, TORONTO.

VALVES AND PIPE . . . FITTINGS

WRITE FOR LATEST PRICES

RICE LEWIS & SON, Limited

Corner King and Victoria
Streets .

TORONTO

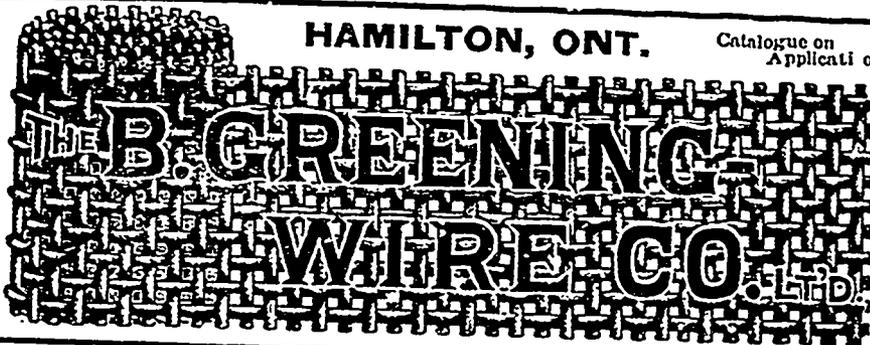
RHODE ISLAND HORSE SHOES.

Cut Nails.
Bar Iron and Steel
Railway Spikes
Pressed Spikes
Washers

ABBOTT & CO., - MONTREAL

HAMILTON, ONT.

Catalogue on
Application



The Packard Electric Co., Limited.

MAKERS OF

Lamps and Transformers

Sole Agents for SCHEEFFER RECORDING WATT METERS
ST. CATHARINES, ONT.

Presbyterians of Wardner, B.C., will shortly erect a \$1,500 church.

Rockingham, N.S., is to have a new Presbyterian church.

Seaforth, Ont., is agitating for a thousand dollar city hall clock.

The Minerva Manufacturing Co., white-wear makers, have decided to move their establishment from Toronto, Ont., to Theresé, P.Q., where they are offered a bonus of \$30,000 to locate. They employ 150 hands.

The litharge works of Messrs. Wilson & LeBel, East London, Ont., were completely destroyed by fire last week. Loss about \$8,000.

The Berlin, Ont., Piano Company, are corresponding with the Town Council of Sault Ste. Marie, Ont., with a view to locating there.

P. N. Esnoufs & Co's property at Smith's Falls, Ont., was last week damaged by fire to the extent of \$7,000.

The C.P.R. will lay about fifty-three miles of steel rails between St. John's, P.Q., and Megantic, and reballast about ninety miles. The C.P.R. telegraph system east of Montreal will likely be extended considerably this season.

Messrs. Robinson & Taylor, Galt, Ont., have begun the manufacture of cream separators.

The new Doherty organ factory at Clinton, Ont., will comprise two large fire-proof brick buildings, one 50x275, the other 50x200, both two stories high; an engine room, 25x25, boiler house, 35x60, the dry kiln, 35x100 and two stories high.

A \$12,000 schoolhouse is to be built at Yarmouth, N.S.

Goldie & McCulloch, Galt, Ont., recently shipped six carloads of sawmill machinery for the Crow's Nest Pass Railway.

Deseronto, Ont., is negotiating for an iron smelter.

A bevel gear weighing four tons was recently cast in the foundry of T. Stuart, St. Catharines, Ont.

South Bar, C.B., is trying to get the Steel Works to remove from New Glasgow, N.S.

Application has been made for incorporation with \$300,000 capital, by the Dominion Radiator Manufacturing Co. to take over the business of the Toronto Radiator Manufacturing Co. The applicants are:—Jos. Weight, J. M. Taylor, D. Carlyle, J. Stark, C. T. Stark.

The Frontenac Lead Mining and Smelting Company, Limited, have been incorporated. Capital \$55,000.

J. W. Vandyke is going to erect a big fruit evaporator and cannery at Grimsby, Ont. The building will be 45x160 and two stories high.

Messrs. Jowett, brass founders, Buffalo, N.Y., are opening a foundry in St. Thomas, Ont.

Acetylene Gas generator manufacturers should communicate with Vincent & Dufresne, civil engineers, St. James street, Montreal, Que., who have a contract for a dredging plant to be operated by acetylene gas engines.

The Kemp Manufacturing Company, of Toronto, Ont., are always adding to their establishment. They have recently added another telephone to their system and you may ring up any of their departments over each of the 'phones. The numbers are now 8030, 1955, 203.

C.P.R. improvements in Galt, Ont., this year is estimated to cost \$100,000.

The B. Greening Co., of Hamilton, Ont., will shortly build an addition to their works.

Architects are at work on plans for a \$50,000 Y.M.C.A. building for Winnipeg, Man.

Quebec, P.Q. electric Railway is likely to be extended to Cap Rouge.

L'Epiphanie and Joliette are likely soon to be connected by an electric railway.

Montreal Street Railway will be extended to Verdun this summer.

It is stated that the directors of the Cataract Power Company, of Hamilton, Ont., have already under consideration the enlargement of their canal from DeCew's Falls.

We are in receipt of the latest issue of the catalogue of John Forman, importer of electric supplies, 644 Craig Street, Montreal, P. Q. Mr. Forman handles a general line of valuable electric goods and a number of specialties. The catalogue is well illustrated and should be in the hands of every electrical contractor in the country.

Mr. Kingdon has completed his brewery in Rat Portage, Ont., and will begin operations at once.

A flour and oatmeal mill is proposed for Strathclair, Man.

The C.P.R. are building a number of larger stock cars for their cattle trade.

The General Engineering Company, Limited, of Toronto, Ont., has recently installed two Improved Jones Underfeed Mechanical Stokers in the premises of the Collingwood Meat Company, Limited, of Collingwood, Ont., three in the S.S. Midland, of the

North Shore Navigation Company, and one in Boone's Dredge, of Collingwood, Ont. The same company have installed two of these stokers in the steamer North King, of Kingston, and one in the Kingston penitentiary.

H. Black & Co. have purchased the Lynett sawmill at Skiloh, Ont., and will remove the business to Fergus, Ont.

Hespeler, Ont., is trying to secure the location there of the Patterson Automatic Acetylene Gas Generator factory for Canada.

James Warren, C.E., of Walkerton, Ont., has been appointed county engineer of Waterloo county, Ontario.

R. T. Graham, of Belleville, Ont., is putting up a big cheese factory near Kingsville, Ont. He will also put up a fruit evaporator at the same place.

Brantford, Ont., city council propose a general exemption from all but school taxes on all machinery and tools for local manufacturers employing a certain number of hands.

The Steinhoff-Hinnegan flax factory at Wallaceburg, Ont., is in shape to run this season.

The Roland Farmers' Elevator Company, Limited, is seeking incorporation with the intention of building an elevator at Roland, Man.

The Robb Engineering Co., Amherst, N.S., recently completed two 225 h.p. engines for the Rathbun Lumber Co., of Deseronto, Ont.

The Penman Manufacturing Co., Merriton, Ont., are receiving large orders for Klondyke outfits.

Perth, Ont., car-shops have two hundred men at work and are running up to ten p.m.

W. Doherty & Co., Clinton, Ont., have contracted with the Canadian General Electric Company for a 500 light dynamo, two 10 h.p. motors and a complete installation for lighting their new factory by electricity.

A glove factory is to be started in Dundas, Ont., by Smith Bros., of Johnstown, N.Y.

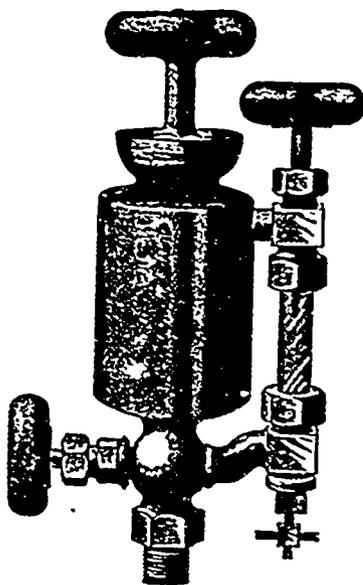
The Barnston Woollen Mill Co. have decided to rebuild the factory at Way's Mills, Que.

The Geo. Reid Co., of Toronto, Ont., have the contract for renewal of portions of the plants of Cronkheit Bros., of the Wasa River Woollen Mills, Wisawasa, Ont., Telford Bros., Clarksburg, Ont.; and J. Walshaw, Bolton, Ont.

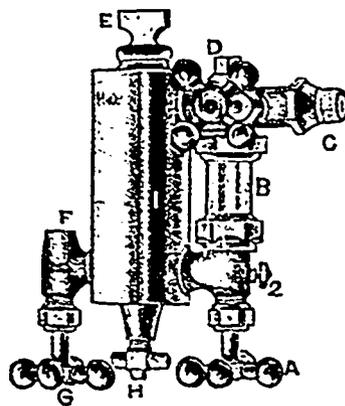
J. L. Goodhue & Co., belt manufacturers, Danville, Que., are completing a big contract for a Pacific coast mill.

J. W. Meyers & Co., of Listowel, Ont., are about to build a seven thousand dollar addition to their flouring mill, and an elevator 30x18 feet.

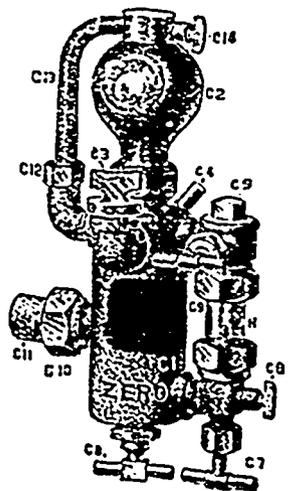
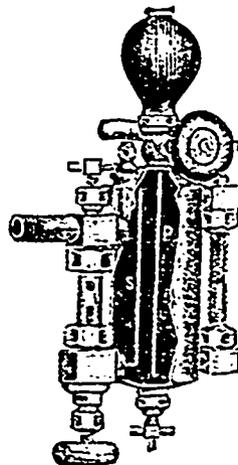
Messrs. Sadler & Haworth, leather belt manufacturers of Montreal and Toronto, lately sent to their customers a souvenir in the shape of a steel folding one foot pocket rule, and among the several hundred letters which they received appreciating and acknowledging the receipt of this useful article is one which reads—"A steel rule is always right, although it is against the rule to steal," and another which goes thus: "I do not know of anything in this line to excel it in utility unless it is the 'Golden Rule,' which should always be our guide."



Queen Sight Feed Lubricator.



Cyclone.



Zero Sight Feed Lubricator.

For Catalogue

Write to

Hamilton Brass Manufacturing Company

(LIMITED).

HAMILTON, - - ONTARIO.

The Bushnell Oil Company are removing their refinery plant from Petrolia to Sarnia, Ont.

A new 100 h.p. engine is being added to the plant of the I. Usher & Sons cement mills at Queenston, Ont.

Report has it that the Calcium Carbide Company, of Merriton, Ont., will build large works at Montmorency, Que.

Port Colborne, Ont., wants tenders for a waterworks system.

St. Patrick's Church, Ottawa, Ont., is to have \$50,000 expended on improvements this year.

J. H. Pothier & Co. are to erect a large sawmill at Tusket Wedge, N.S.

Berlin, Ont., is to have a canning factory started by M. Moore, Chatham, Ont.

The government creameries in Alberta, N.W.T., last year produced 127,895 pounds of butter, which averaged 13.54 cents per pound.

Jas. Livingstone, of Baden, Ont., is promoting a joint stock company to take over the Livingstone flax mills at Listowel, Ont. The company will likely have a capital of \$12,000.

A large quantity of agricultural implements have been shipped from Toronto to Australia, Germany, Russia, Italy and France this year, and the Davies Company have exported bacon to the value of some \$200,000.

Mr. E. E. Pettigrow, of Winnipeg, Man., has placed an order with the Jenckes Machine Co., Sherbrooke, Que., for a five-stamp mill, complete, with thirty-five h.p. engine and portable boiler.

St. John, N.B., is likely to instal an electric police alarm system.

Mr. M. F. Mooney, a St. John, N.B., man, has just returned from England and Scotland where he interested capital in a new pulp mill to be built and operated at Mispec, N.B.

The estimated expenditure of the Massey-Harris Company on their impement works at Brantford, Ont., this summer, is \$25,000.

A waterworks system is to be built in Hintonburg, Ont.

Hamilton, Ont., is to have an \$18,000 trunk sewer built this summer.

C.P.R. shops at Donald, B.C., will be removed to Revelstoke, B.C. Plans for buildings are being prepared.

Arkona, Ont., offers \$10,000 bonus to the proposed electric line from London, Ont., to Lake Huron.

Slight damage was done by a blaze in Chadwick Bros. moulding shop, Hamilton, Ont., this week.

KLONDIKE . . .

PERSONS GOING TO OR RESIDING IN

THE YUKON DISTRICT may secure policies from

The Manufacturers' Life Insurance Co.,

Free from all restrictions and subject to one condition only WITHOUT EXTRA PREMIUMS.

Apply **GEORGE A. STERLING**, Secretary, Head Office, Toronto, or to your local agent.
GEORGE GOODERHAM, President. **J. F. JUNKIN**, General Manager.

Keep your Belts from Slipping and Preserve them by using

STICK FAST BELT DRESSING.



Guaranteed to keep any Belt from slipping the moment it is applied; also to keep Belts from cracking.

This Dressing will save you power and money.

Give it a trial order. Hundreds of testimonials from users.

H. R. RIDOUT & CO.,

Railway, Mill, Foundry and Engineers' Supplies,

22 ST. JOHN STREET, MONTREAL.

THE OTTAWA PORCELAIN AND CARBON CO., Limited, OTTAWA, ONT. . . .

MANUFACTURERS OF

CARBON POINTS for all kinds of Arc Lamps, including Cored and Solid Carbon for Incandescent Circuits.

.....ALSO.....

MOTOR BRUSHES and Specialties in Carbon for Telegraph, Telephone and Electric Light Supplies.

PORCELAIN INSULATORS, Cleats, Door Knobs, and all kinds of Pressed Porcelain for Electrical and Hardware Lines.

ALL GOODS GUARANTEED TO GIVE SATISFACTION.

A Saving.

The first cost is not the test of an actual saving. The truly Economical Manufacturer knows this to be true. For instance, the cheap, trappy Pulley, by its inferior working qualities, is a source of loss to the user the moment it is put in operation, and this loss continues all the time the Pulley is working. You do not get the full or proper results from your power plant. Higher price, though, is not always a sign of better quality, for instance—you may or may not have to pay more for

“THE REEVES” PATENT WOOD SPLIT PULLEY

but in either case you are getting the best value on the market. Because with THE REEVES the saving is continual, in Power, in Time, in Shafting, in Belting, and last but not least, and as a result of all the other savings, a saving in Money. CAN YOU AFFORD TO BE WITHOUT “THE REEVES”? Is the best too good for you? WRITE TO-DAY FOR OUR CATALOGUE AND GET OUR PRICES.

Also COLUMBUS, IND.

- REEVES PULLEY CO., Toronto, Ont.

The Allan Line are preparing for expected increase of traffic in 1899. They have given a contract for another steamship of 10,000 tons register, length 580 feet, beam 60 feet, speed 16 knots per hour. The ship will have accommodations for 200 first class, 150 second-class and 750 steerage passengers.

Essex Centre, Ont., expects to have a manufactory for the making of fertilizers from ashes, bone, etc.

The Tobique Manufacturing Company, Tobique River, N.B., are seeking incorporation with power to mine gypsum, coupled with many other important privileges.

The Kootenay Air Supply Company, incorporated in 1897 in British Columbia, have secured privileges under the Water Clauses Consolidation Act, and will erect a hydraulic air compressor near Coffee Creek, Ainsworth, B.C.

The G.T.R. and the Wabash are the incorporators of the Union Bridge Company, of Detroit, which proposes to build a two million dollar railway bridge across the Detroit River.

A clever card is that of W.F. Lowe, M.E., of Toronto, Ont. One side bears his ad. and by a very ingenious arrangement the other side presents a working model for a double acting short D slide valve.

Factory for Sale.

A large, convenient and well-located factory, situate on Barton street, Elgin and Mary streets in the

CITY OF HAMILTON.

With Engine, Boilers and Shafting, suitable for any purpose. Adjacent to G.T.R. railway track. For particulars apply to

W. M. COCKBURN.

11 Toronto Street, Toronto, or

F. H. LAMB,

63 King Street East, Hamilton.

"Peerless" CYLINDER ENGINE, DYNAMO and MACHINE

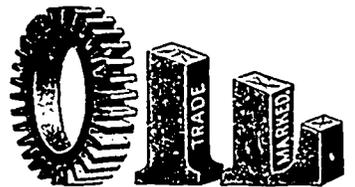
THESE OILS ARE ADAPTED TO ALL CONDITIONS OF WEIGHT, SPEED, STEAM-PRESSURE AND ATMOSPHERIC CHANGES. THE "PEERLESS" BRANDS ARE THE BEST-KNOWN OILS IN THIS COUNTRY.

—WRITE FOR PRICES—

Should our Travelers not call in time.

The **QUEEN CITY OIL CO., Limited** - - **TORONTO.**

SAMUEL ROGERS, President.



INTERESTING TO MILL OWNERS.

OAK TANNED LEATHER BELTING.

Lancashire Hair Belting.

ENGLISH CARD CLOTHING.

D. K. McLAREN

Manufacturer and Mill Furnisher,

Montreal—Ottawa—Galt—Winnipeg.

WESTERN TRADE :-

Our Mr. R. M. W. McLaren, in charge of Galt Branch, will be pleased to give quotations as well as receive orders.

Dominion Oil Cloth Co.,

Manufacturers of....

OIL-CLOTHS OF EVERY DESCRIPTION

Floor Oil-Cloth, Table Oil-Cloth, Carriage Oil-Cloth, Enamelled Oil-Cloth, Stair Oil-Cloth, etc, etc.

Office and Works

Cor. St. Catharino and Parthonsais Sts., MONTREAL, Que.

S HUTTLES BOBBINS
SPOOLS
PICKER
STICKS
CLOTH
ROLLS, Etc.

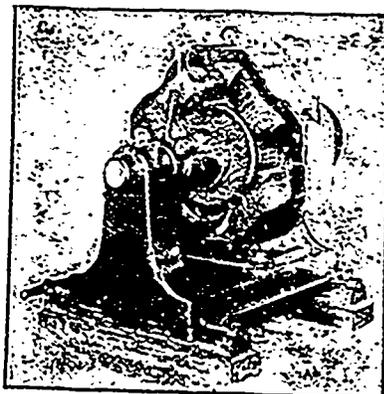
JOHN HOPE & CO., - - LACHUTE, QUE.

THOMPSON & CO., Manufacturers of BOBBINS and SPOOLS

FROM SELECTED STOCK.

Correspondence Solicited
Orders Promptly Filled • SHERBROOKE, P. Q.

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MULTIPOLAR MOTORS AND DYNAMOS

AND Direct Connected Plants FOR ISOLATED LIGHTING.

Head Office and Factory: No. 90 York St, LONDON, Can.

700 Main Street, WINNIPEG.

12 York Street, TORONTO.



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...ENGINE...

SIMPLICITY, COMPACTNESS, PERFECT REGULATION, ECONOMY, AUTOMATIC LUBRICATION.

For Electric Lighting Mills, Factories, and other purposes where Economy, close regulation and enduring service is required.

Manufactured by.....

R. WHITELAW, Woodstock, Ont.

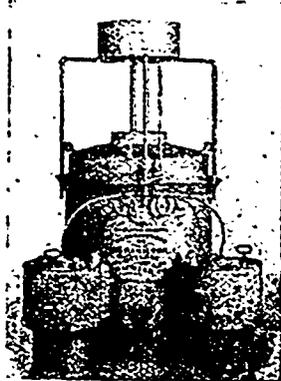
\$25 DOLLARS \$25

Will pay your tuition in the
**BUSINESS, SHORTHAND,
TELEGRAPH, or PENMANSHIP**

Department of the
CENTRAL BUSINESS COLLEGE

TORONTO
FOR THE
SPRING TERM
ENDING JUNE 30TH NEXT.
Get Particulars. Enter NOW.
Write—
W. H. SHAW, Principal
CORNER YONGE AND CERRARD STREETS.

Hamilton Acetylene Gas Machine.
SIMPLE, ECONOMICAL, DURABLE AND SAFE.



Adapted for PRIVATE HOUSES, OFFICES,
STORES, CHURCHES, or any building
where a clear, bright and steady
light is required.

300 in use in Dominion of Canada.
Address Communications to
**HAMILTON ACETYLENE GAS
MACHINE CO., Limited.**
71 York Street, HAMILTON.

Canada Chemical Manufacturing Co.

Manufacturers of

- Sulphuric, Nitric, and Muriatic
Acids — Commercial and
Chemically Pure.
- Mixed Acids for Explosives.
- Liquid Ammonia, Glauber Salts,
Copperas, Muriate Tin,
- Tin Crystals, Acetic Acid, Nitrate
Iron, Bisulphite Soda,
- Acid Phosphate for Baking Pow-
ders and General Chemicals.
- Fertilizers, etc.

**LONDON,
ONT.**

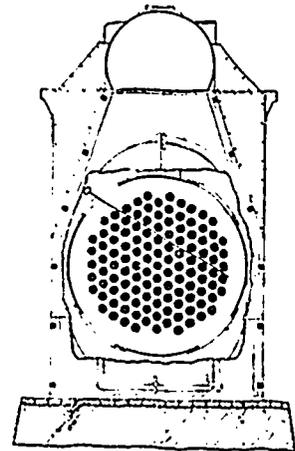
MUMFORD'S IMPROVED BOILER.

The following illustrations and description are of a new boiler intended to meet the demand for greater economy and efficiency than are obtained from the ordinary brick-set boiler. The water circulation is similar to that of a water-tube boiler, and for very high pressure it is built with a corrugated furnace. It was designed by Mr. J. A. Mumford, and is manufactured in Canada by the Robb Engineering Company, of Amherst, N. S., and in the United States by a large concern in Erie, Pa.

The furnace has ample room for mixing the gases, and is surrounded by water so that the direct and radiant heat of the fire is readily absorbed. The heated gases pass directly through well-proportioned tubes, and return around the shell of the boiler and underneath the drum, making every square foot of the boiler effective as heating surface, and enter the smoke-stack with sufficient temperature remaining to produce good natural draft. By covering the case and drum with a non-conducting material, the loss of heat usually found in the setting of boilers may be reduced to a minimum.

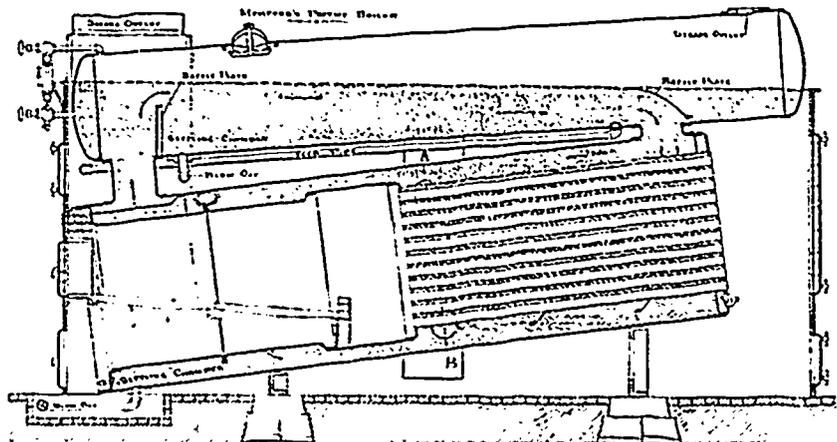
The water circulates continuously from the front to the back of the boiler, up the back connection to the drum, where the steam freely separates from the water, and down the front connection to a point below the fire. This positive circulation admits of

enters the drum near the back end, and part of the sediment is deposited in a settling chamber at the front end of drum, and may be blown out. Additional impurities that are carried down the front connection are

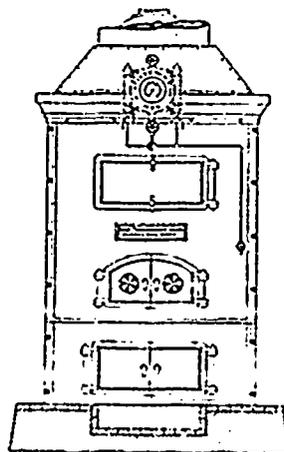


Section at A B showing hand holes and scraper for cleaning tubes.

deposited in another settling chamber below the furnace. This leaves very little, if any impurity, to form scale on the furnace and tubes, and it may be removed by a scraper inserted through hand holes in the shell, the



using forced draft, increasing the horse power of the boiler without foaming or priming, the increased temperature increasing the speed of the water circulation without any evil effects.



End elevation.

Special arrangements are made to avoid trouble with bad water. The feed pipe

tubes being spaced so that all can be cleaned. Doors are placed in the casing opposite these hand holes, which also give facilities for cleaning the outside of the shell.

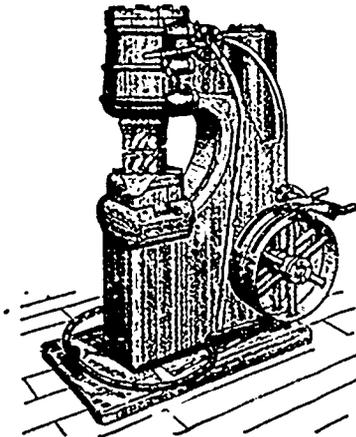
The Robb Engineering Company inform us that they have already installed two of these boilers in Montreal, and others in Lethbridge, N.W.T., Fort William, Ont., and Parrsboro, N.S., while a number more are ordered.

Architect F. W. Mellish is preparing plans for the C. Turnbull Knitting Company's new factory in Galt, Ont. It will be of stone three stories high and 60x133 feet.

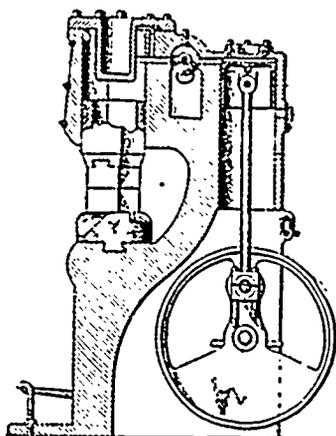
The C.P.R. is adding fifty-five cars to its rolling stock. About 1,300 men are at work on their construction and the completion of the lot will make the C.P.R.'s rolling stock equipment the best in the world. The cases of the first-class coaches and sleepers are of mahogany, and the interiors of rare and expensive woods. Both are fitted with wide vestibules, making a whole train a complete enclosure. The smoking compartments will be made larger, and the interior decorations will consist very largely of carving. The sleepers will be lighted by electricity from a dynamo attached to the car axles.

THE VACUUM HAMMER.

The accompanying illustrations represents the Yeakley Vacuum Hammer, invented by Melvin A. Yeakley, of Columbus, Ohio., U.S.A. One gives a prospective view of the hammer and the other a vertical section showing crank, connecting rod, air piston, valve mechanism and cylinders. This hammer is so designed as to do all classes of



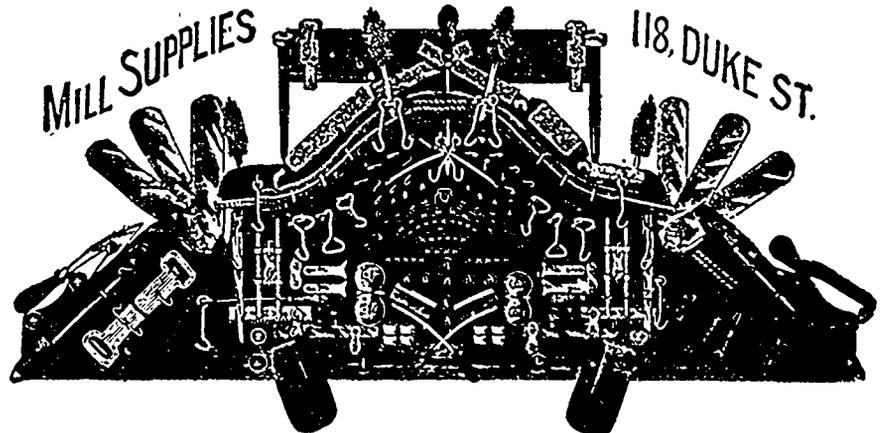
light and heavy forging in iron and steel without any change or variation of speed. It requires little power to drive and has a long range of stroke. The blows are uniform throughout, the first being as exact as those that follow. The hammer head is actuated by vacuum and pressure, and controlled by a simple valve mechanism that responds to the slightest touch. There is no piston rod to break, therefore the good points in this hammer are its simplicity, its power, ease of operation, strikes one blow, light or heavy, at will of operator, and is available for drop forging. No elastic blows given; always gives a dead blow with pressure following clear down to its work, and is always under perfect control. Will press as a vice. There are no helves, springs, straps, rubber cushions or friction brakes to get out of order. It is claimed by its makers to be twice as powerful as any other hammer of



its size. The movement of the treadle which operates the valve is adjustable from one to three inches, responds instantly to touch of treadle, and when the work is not too large the operator can manage both his work and hammer perfectly. A specimen hammer has been erected and can be seen working at the Dominion Chain Works, 174-176 Front St. E., Toronto.

For further particulars as to shop rights, or the rights to manufacture for the Dominion of Canada, apply to H. F. Lowe, M.E., Patent Solicitor, Toronto, Canada.

GEO. REID & CO. Successors to **The PAUL FRIND Woollen Machinery Co., Limited,** TORONTO.
 'PHONE 956



SPECIALTIES : Hamilton Cotton Co's Beam Warps.

Samuel Law & Sons H. and T. Steel Card Clothing.

All Kinds of Textile Machinery.

Machine Shops in Connection.

HAMILTON COTTON CO.
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**YARN MANUFACTURERS,
 DYERS, AND BLEACHERS,**

Warp Yarns of all descriptions, in Skein, Chain or on Beams.

Hosiery Yarns in Single or Double ; in Cop, Skein or Cone.

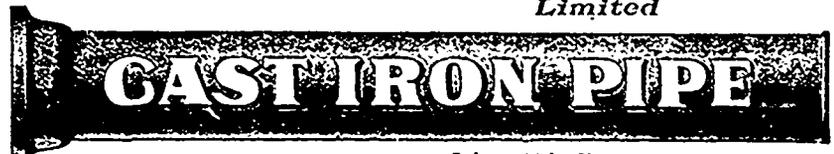
Yarns of all kinds for Manufacturers' use.

Twines, Lampwicks, Webbing, Etc.

Dyeing of all colors, including **GENUINE FAST BLACK.**

ALEX. GARTSHORE, President. J. G. ALLAN, Sec.-Treas. JAS. THOMSON, Vice-Prec. and Gen. Mngr.

THE GARTSHORE-THOMSON PIPE & FOUNDRY CO.
 Limited



3 in. to 60 in. diameter.

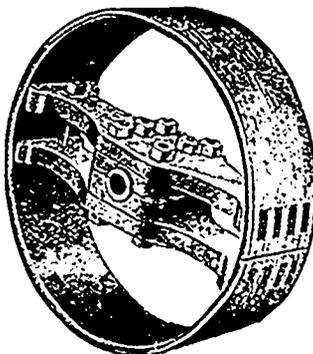
For Water, Gas, Culverts and Sewers

Special Castings and all kinds of

FLEXIBLE AND FLANGE PIPE.

WATER WORKS SUPPLIES

HAMILTON, ONT.



BENT WOOD SPLIT PULLEYS,
 RIM... (REID'S PATENT).

The Strongest, Lightest and Best Belt Surface in the World

No Glue, no Nails in Rim like Segment Rim Pulleys, to be affected by Steam, Dampness or Moist Temperature.

EVERY PULLEY GUARANTEED.

The Reid Bros. Manufacturing Co., of Toronto,
 257 King St. West, Toronto.

JOHN J. KELLER & CO.104 and 106 MURRAY ST.
NEW YORK

220 Church St., Philadelphia.

135 Pearl Street, Boston.

**Aniline Colors,
Dyewood Extracts,
Sumac and
Nutmeg Extracts.**FAST COLORS for Wool Dyeing,
One Dip Cotton Colors, Novelties
and Specialties for Calico
Printing.

MANUFACTURED BY

JOHN R. GEIGY & CO.
BASEL, SWITZERLAND**THE TARIFF RESOLUTIONS.**

Following are the tariff resolutions introduced last week in the House of Commons at Ottawa:—

That it is expedient to repeal section six of "The Customs Tariff, 1897," and to substitute the following section therefor:—

6. The importation into Canada of any goods enumerated, described, or referred to in schedule C to this Act is prohibited; and any such goods imported shall thereby become forfeited to the Crown, and may be destroyed or otherwise dealt with as the Minister of Customs may direct; and any person importing any such prohibited goods, or causing or permitting them to be imported, shall for each offence incur a penalty not exceeding \$200.

PREFERENTIAL TARIFF.

That it is expedient to provide that section seventeen of the Customs tariff, 1897, shall be repealed on and after the first day of August in the present year, 1898, and that the following section shall be substituted therefor:—

17. Articles which are the growth, product, or manufacture of any of the following countries may, when imported direct into Canada from any of such countries, be entered for

duty or taken out of warehouse for consumption in Canada at the reduced rate of duty provided in the British preferential tariff, set forth in schedule D to this act.

(a) The United Kingdom of Great Britain and Ireland.

(b) The British colony of Bermuda.

(c) The British colonies commonly called the British West Indies, including the following:—

The Bahamas, Jamaica, Turk's Island, and the Caicos Islands, the Leeward Islands (Antigua, St. Christopher-Nevis, Dominica, Montserrat, and the Virgin Islands), the Windward Islands (Grenada, St. Vincent, and St. Lucia), Barbadoes, Trinidad, and Tobago, British Guiana.

(d). Any other British colony or possession the customs tariff of which, on the whole, is as favorable to Canada as the British preferential tariff herein referred to is to such colony or possession. Provided, however, that manufactured articles to be admitted under such preferential tariff shall be home-made the manufactures of a country or countries entitled to the benefits of such tariff, and that such benefits shall not extend to the importation of articles into the production of which there has not entered a substantial portion of the labor of such countries. Any question that may arise as to any article being entitled to such benefits shall be decided by the Minister of Customs whose decision shall be final.

2. The Minister of Customs, with the approval of the Governor-in-Council, shall determine what British colonies or possessions shall be entitled to the benefits of the preferential tariff under clause D of this section.

3. The Minister of Customs may, with the approval of the Governor-in-Council, make such regulations as may be deemed necessary for carrying out the intention of this section.

That it is expedient to provide that schedule D to "The Customs Tariff, 1897," shall be repealed on and after the 1st day of August, in the present year, 1898, and that the following schedule shall be substituted therefor:—

Schedule D—British Preferential Tariff—
On articles the growth, produce, or manufacture of the United Kingdom of Great Britain and Ireland, or of any British colony or possession entitled to the benefits of this preferential tariff under section seventeen, the duties mentioned in schedule A shall be reduced as follows:—The reduction shall be one-fourth of the duty mentioned in schedule A, and the duty to be levied, collected, and paid shall be three-fourths of the duty mentioned in schedule A.

Provided, however, that this reduction shall not apply to any of the following articles, and that such articles shall in all cases be subject to the duties mentioned in schedule A, viz.: wines, malt liquors, spirits, spirituous liquors, liquid medicines, and articles containing alcohol; tobacco, cigars, and cigarettes.

Provided, further, that the reduction shall only apply to refined sugar when evidence satisfactory to the Minister of Customs is furnished that such refined sugar has been manufactured wholly from raw sugar produced in British colonies or possessions.

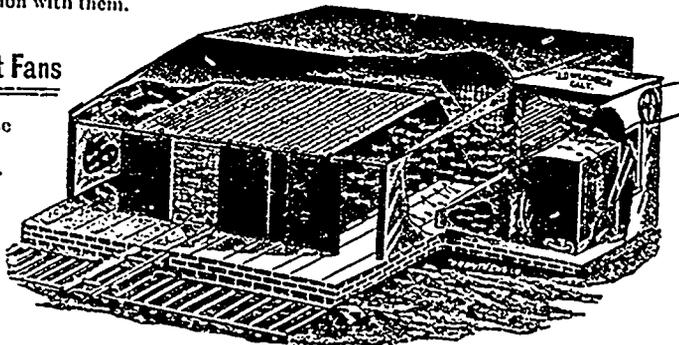
SUGARS.

That it is expedient to repeal items 435 and 436 of schedule A to the "Customs Tariff, 1897," and to substitute the following therefor:—

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435—All sugar above number sixteen Dutch standard in color, and all refined sugars of whatever kinds, grades or standards, testing not more than eighty-eight degrees by the polariscope, one dollar and eight cents per one hundred pounds, and for each additional degree one and one-half cents per one hundred pounds. Fractions of five-tenths of a degree or less not to be subject to duty, and fractions of more than five-tenths to be dutiable as a degree.

436—Sugar, n.e.s., not above number sixteen Dutch standard in color, sugar drainings or pumpings drained in transit, melado, or concentrated melado, tank bottoms and sugar concrete, testing not more than seventy-five degrees by the polariscope, forty cents per one hundred pounds, and for each additional degree one and one-half cents per one hundred pounds. Fractions of five-tenths of a degree or less not to be subject to duty, and fractions of more than five-tenths to be dutiable as a degree. The usual packages in which imported to be free.

That it is expedient to provide that items 445 and 446 of schedule A to "The Customs Tariff, 1897," shall be repealed on and after the first day of July in the present year, one thousand eight hundred and ninety-eight.

TOBACCO.

That it is expedient to provide that on and after the first day of July, in the present year, one thousand eight hundred and ninety-eight, the following items shall be added to schedule B to the Customs Tariff, 1897:—

636—Tobacco, manufactured, for excise purposes, under conditions of the Inland Revenue Act.

That it is expedient to provide that on and after the first day of July in the present

year, one thousand eight hundred and ninety-eight, in addition to the excise duties at present levied on manufactured tobacco, cigars and cigarettes, there shall be levied and collected the following excise duties, that is to say:—

(a)—On all foreign raw leaf tobacco, unstemmed, taken out of warehouse for manufacture in any cigar or tobacco manufactory, ten cents per pound.

(b)—On all foreign raw leaf tobacco, stemmed, taken out of warehouse for manufacture in any cigar or tobacco manufactory, fourteen cents per pound.

Provided, that the weight upon which such duty shall be computed shall be with reference to the standard mentioned in paragraph (c) of section 247 of the Inland Revenue Act.

AN AUSTRALIAN IDEA.

The United States, it is now admitted, is likely to prove a competitor with Great Britain in supplying the world's markets. Latest advices from Baltimore state that the ability of the American manufacturers to underbid their English competitors in markets hitherto monopolized by the latter is being daily demonstrated. For instance, the Maryland Steel Company has just secured the contract for the supply of 8,000 tons of steel rails for use on the East India railways. A large proportion of this order has already been shipped to Calcutta, and, it seems, has created something like a scare among British manufacturers. Indeed, the attention of Parliament was called to the matter late last July, and the reply given by the Secretary of State for India was that the lowest tender received from any English firm was £8,675

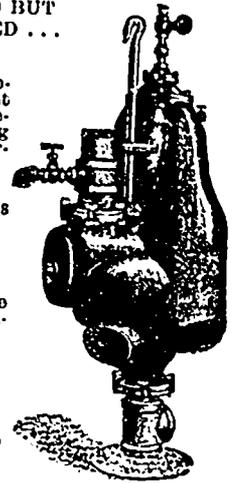
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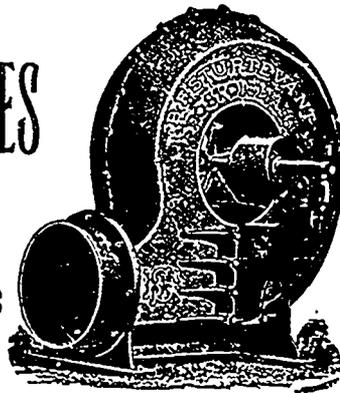
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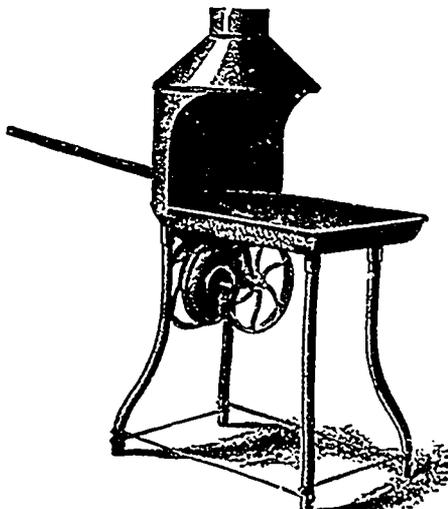
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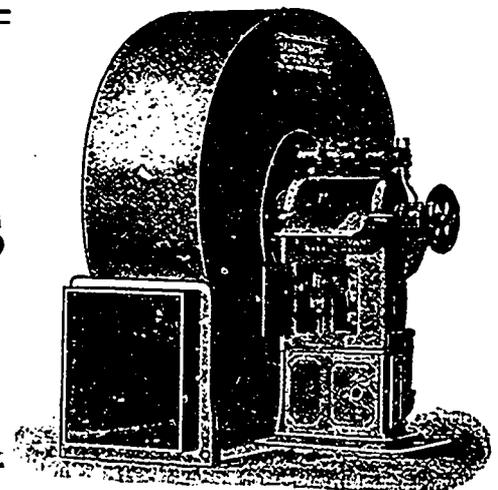
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LAKEFIELD, ONT., Feb. 22, 1893.

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Yours very truly,

Signed A. T. F. ATWOOD.

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higher than that sent in by the successful tenderer. The Maryland Company's tender was, it seems, \$5.35 per ton below the lowest English tender, indicating that Protection does not enhance the cost of production. Canada is also transferring its orders to the United States for steel rails, the Intercolonial Railway having recently purchased 3,000 tons for delivery at Halifax, while 1,000 tons have been sent to Prince Edward Island. Turning to the British colonies, 1,500 tons of steel rails have been purchased for South Africa, to be delivered at Cape Town; while the Lackawanna Steel Company has booked an order on Australian account for 2,000 tons of steel rails, delivered at Sydney. This, it may be remarked, is the first large order sent to the United States by Australia for this class of goods; but as the price at which the rails can be supplied is lower than they can be obtained in England, there appears to be every prospect of those orders in the future going in the same direction. Perhaps the most interesting item in this new opening of American trade is to be found in a Cleveland company having secured the order for 20,000 tons of steel rails for the electric roads in Ireland.

Nor can it be said that it is only in tin plates and steel rails that the interests of British metal manufacturers are being threatened by the United States. The majority of vessels sailing from New York for Melbourne or Sydney, our advices state, are taking forward in either as pig or in manufactured form, while the shipments to Europe have largely expanded. One Tennessee company alone exported 60,000 tons in iron and steel to the Continent during the earlier months of the present year. The Carnegie Steel

Company has obtained an order for 18,000 tons of steel for the new Victoria Bridge at Montreal, Canada; while the orders for iron and steel girders and beams are so large that the mills find considerable difficulty in meeting the demands on the working resources, and our latest advices state that in all directions plants are being increased, and a large addition is being made to the hands employed in the various industries. Comparing the present position with that of the past an American writer says:

A decade ago, England stood at the very head in the manufacture of iron. Two decades ago the products of her foundries and machine shops were unexcelled. Her rolling mills were the largest on earth, her machine shops the best equipped, and her cutlery and edge tool works without rivals. Through the benign influence of Protection all that has been changed, and the United States stands to-day in the manufacture of iron where England stood only ten years ago.

It cannot be ignored that this change in the industrial position of the United States, in one of its most important sections, is due to a large extent to the Dingley Tariff. It is claimed by its opponents that this measure simply served to enrich the manufacturers, but the answer given is that it has benefited American industry as a whole. It has induced enterprise and added largely to the amount of capital expended in wages, improving the condition of the workers, who in their turn add to the prosperity of the country by their expenditure in other directions. Hence the community as a whole has benefited, and it is the working out of this system in Victoria which has gained Protection to local industries so many friends.—Melbourne (Australia) Age.

MAKING BIG MACHINERY.

Mr. Mills, consulting engineer of the War Eagle Mine, Rossland, B.C., has been looking into the respective merits of a number of different types of air compressors, and after an exhaustive test, has decided upon the Ingersoll Sergeant piston inlet compressor, which he considers as economical in operation and able to stand a severe strain. He placed the order for the machine with the James Cooper Manufacturing Company, Limited, of Montreal, and when completed, it will be the biggest compressor in Canada, having a capacity of fifty drills. The fly-wheel will be twenty-two feet in diameter, and weigh about twenty-five tons. It will be run by electricity. The War Eagle Company have also ordered from the same firm a three hundred ton electric hoist, to hoist with an average working load of eight tons from a depth of three thousand feet, at a speed of one thousand feet per minute. This will be the largest electric hoist in the world, and its construction is a credit to the James Cooper Company.

The Canada Atlantic Railway is hustling for the trade to the seaboard this summer. Their boats will run from Chicago and Duluth to Parry Sound, Ont., and thence they will carry goods and freight to near Montreal. The harbor at Parry Sound is very deep, and the new steamer, William R. Linn, chartered for this line, proposes to load to a depth of twenty feet, which will be the greatest draft ever cruising on the Great Lakes.

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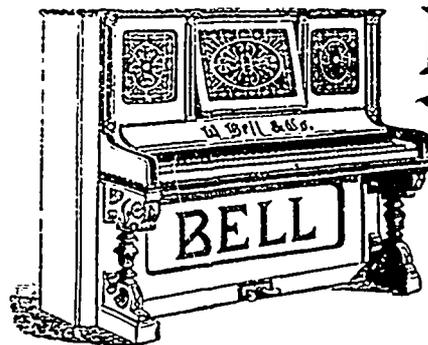
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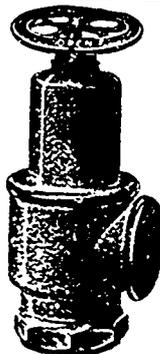
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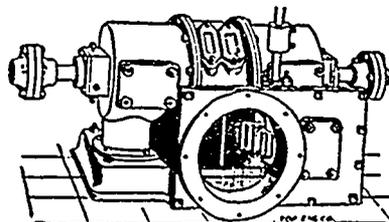
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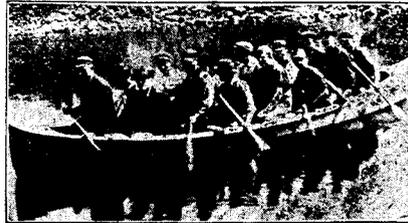
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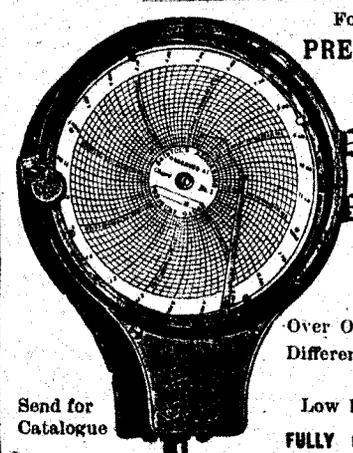
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