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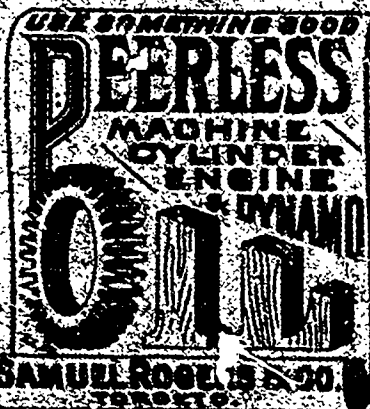
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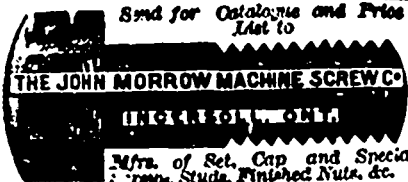
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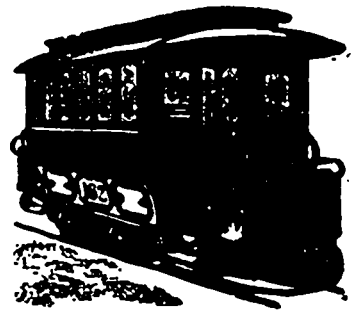
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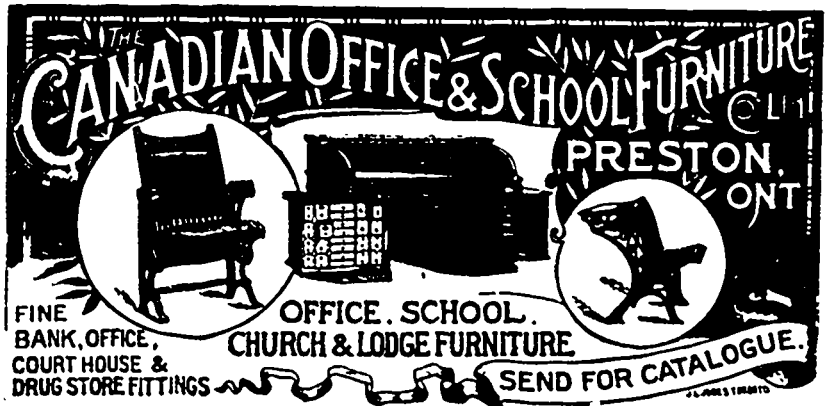
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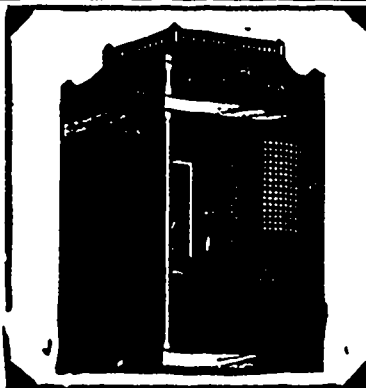
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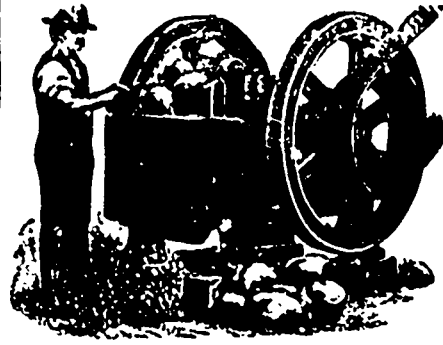
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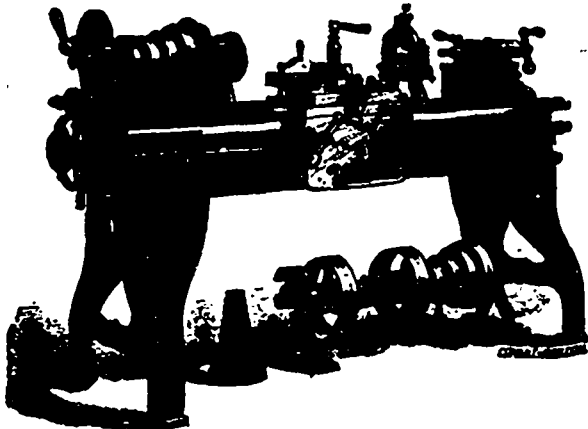
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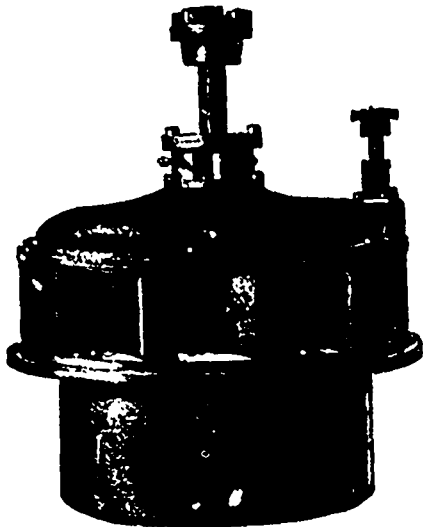
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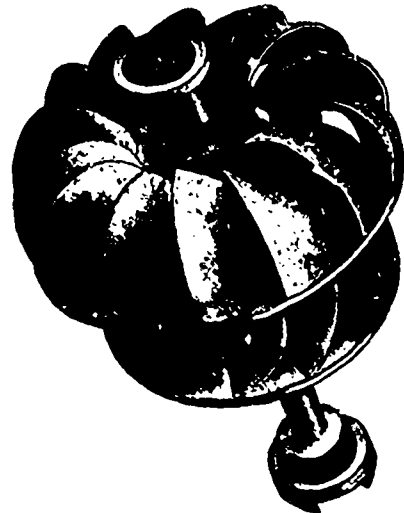
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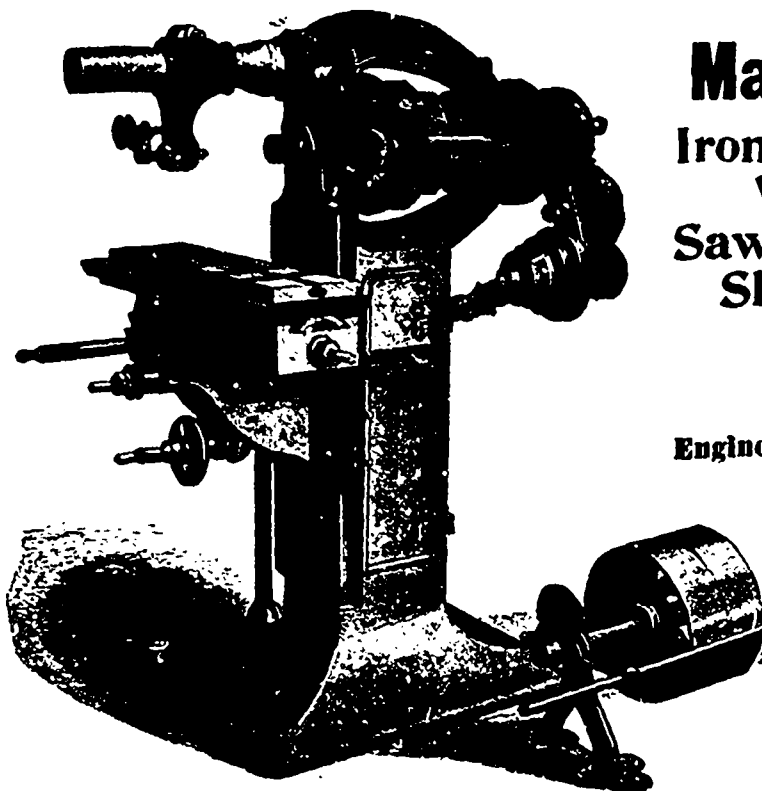
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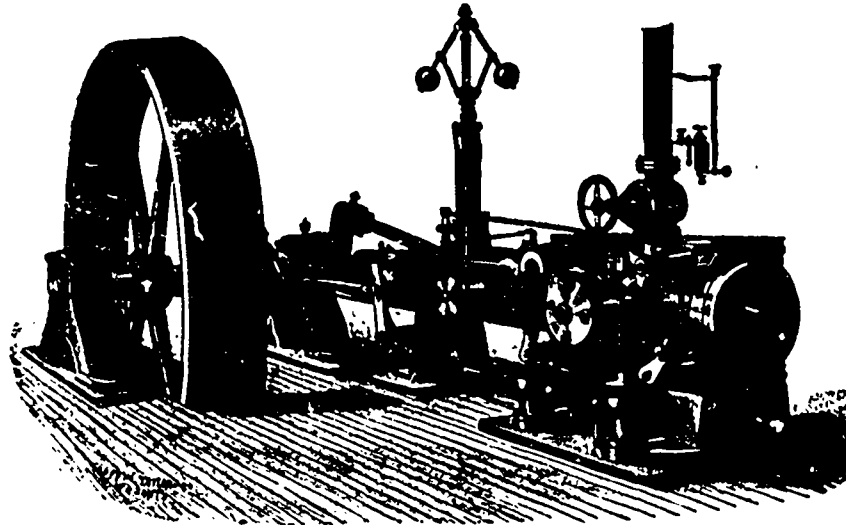
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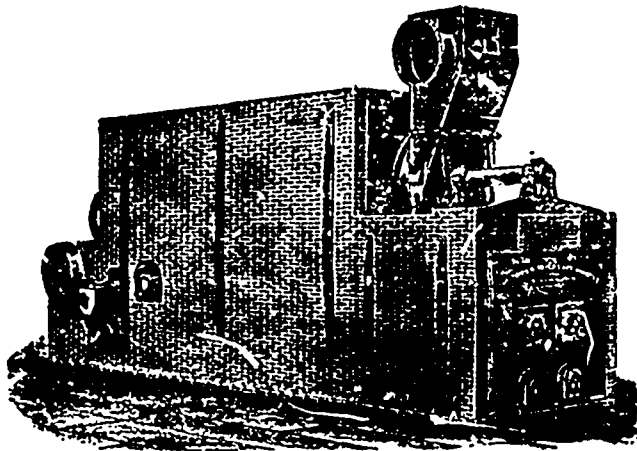
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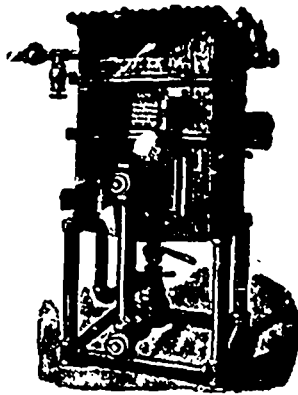
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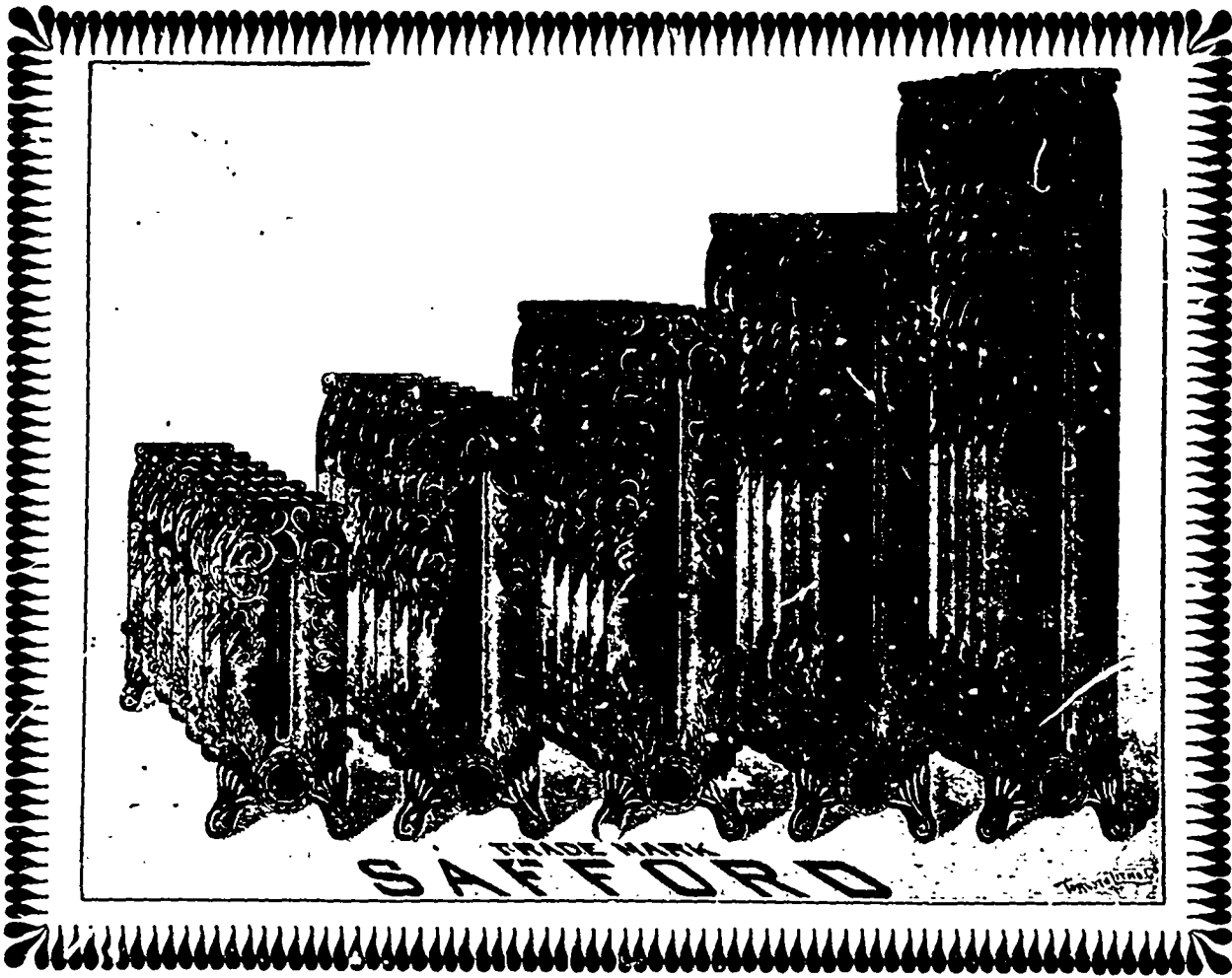
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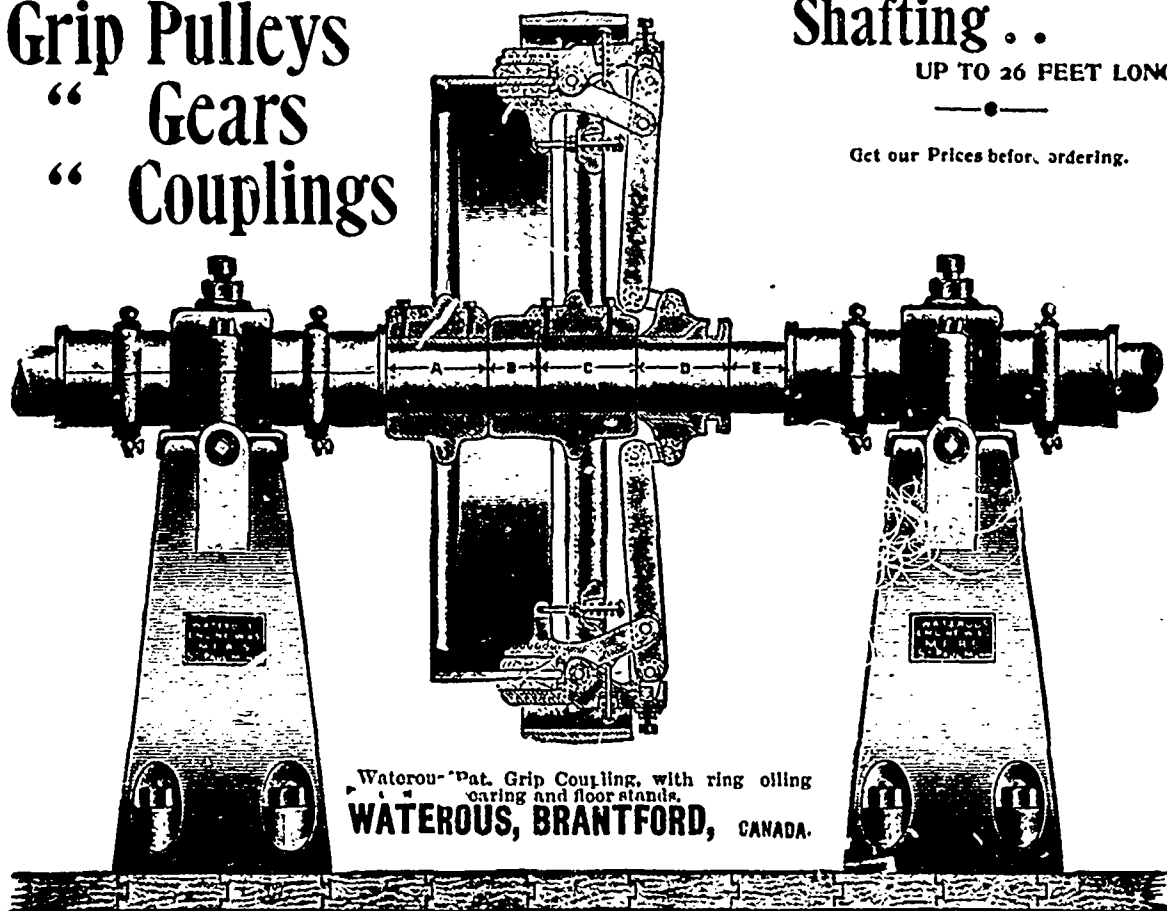
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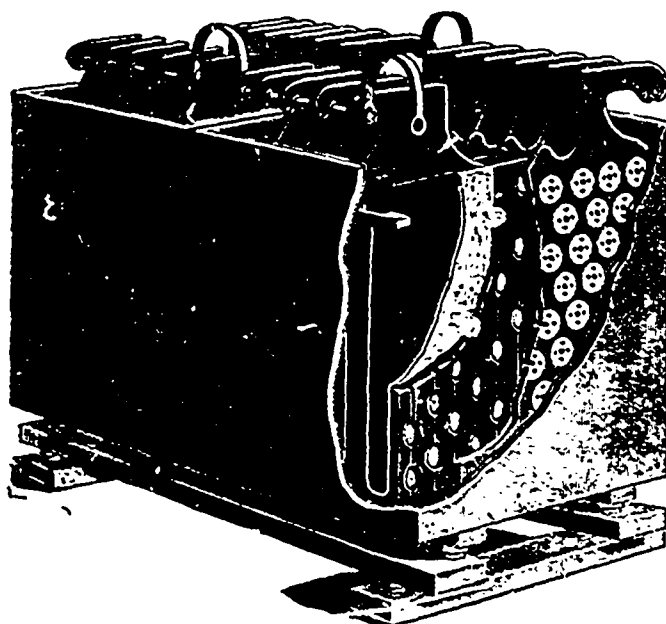
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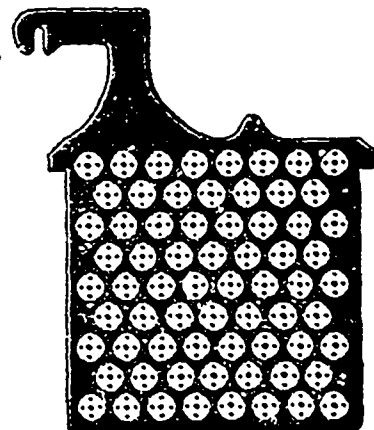
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SIR JOHN S. D. THOMPSON.

Again, and for the third time within the space of three and a half years, the all conquering hand of death has been outstretched to gather into his cold embrace a prime minister of Canada, and Sir John Thompson is no more. He died at Windsor Castle, England, on December 12, 1894, having just turned the half century milestone of his life.

John Sparrow David Thompson was born in Halifax, Nova Scotia, on November 10, 1844. His father was

John Sparrow Thompson, a native of Waterford, Ireland, who was for a time Queen's Printer of the Province of Nova Scotia. The son was educated in the public schools and an academy in Halifax. In his youth he made himself a skilled stenographer, and having become a law student, he turned his stenographic skill to account in reporting the debates in the Nova Scotia House of Assembly. He was called to the bar in 1865, and in the practice of his profession he was notably successful; and before many years he held the position of acknowledged leadership in the House of Assembly of his native Province, to which he was elected in 1877, to represent the Antigonish constituency; and it was while serving in that capacity he was chosen as Attorney-General. This was under the administration of which Mr. Simon H. Holmes was leader, who, retiring, placed Mr. Thompson in the position of premier. At the next ensuing election, in 1882, the Government was defeated, Mr. Thompson being returned as member of the Assembly for Antigonish; but a couple of months later he was, in the 38th year of his age, appointed a Judge of the Supreme Court of Nova Scotia, and subsequently the Chief Justice of that Court. In the meantime the sterling worth of Judge Thompson became well known, not only in his native Province, but throughout Canada, and when in 1885, Sir Charles Tupper became High Commissioner for Canada, at London, near the British Government, Sir John Thompson accepted the invitation of Sir John Macdonald, the Premier, to take the portfolio of Minister of Justice in the cabinet of the Dominion Government.

As a Cabinet Minister, the career of Sir John Thompson in the House of Commons was no less remarkable than it had previously been; and his individuality and unswerving integrity soon won for him a reputation that was as wide as it was enviable. Sir John Macdonald soon learned to lean on his judicial colleague, and to trust implicitly to his judgment in all matters entrusted to him. One of the most important events which Sir John Thompson brought to a favorable determination while serving in the Macdonald Cabinet was the defeat of what was known as the Bond treaty between Newfoundland and the United States. The refusal of the British Government to allow that treaty to go into effect was of the utmost importance not only to Canada but to the whole British Empire; and the part Sir John Thompson took in the matter cannot be too highly appreciated by all Canadians and by all supporters of the Crown.

Sir John A. Macdonald died in office on June 6, 1891, and a few days later—on June 16—Sir John J. C. Abbott succeeded to the Premiership, all of the Ministers then in office retaining their portfolios, and were not reappointed; but on December 5, 1892, he resigned on account of ill health. On the same day the subject of this sketch, Sir John Thompson became Premier, and continued such until his death a few days ago. Under his administration one of the most important questions that arose was the arbitration of the Behring Sea difficulty. The Treaty of Arbitration was formally ratified by Great Britain, acting for Canada and the whole Empire, and the United States, on May 7, 1892, resulting in the settlement of the matter in the Court in Paris, France, Lord Hannen and Sir John Thompson representing Great Britain. For his services

THE RIGHT HONORABLE
SIR JOHN S. D. THOMPSON,

P. C., K. C. M. G., M. P., Q. C.,

Premier and Minister of Justice of Canada.

Born at Halifax, Nova Scotia, November 10, 1844.

Died at Windsor Castle, England, December 12, 1894.

in the settlement of this dispute Sir John Thompson was most highly complimented not only by his own Government and Canadians generally, but also by the British Government, his ability being recognized as that of a statesman and diplomat.

It was also under the administration of Sir John Thompson that the Colonial Conference was held on invitation of the Dominion Government, in the City of Ottawa, beginning June 28 of the present year. Accredited to this Conference were delegates from the Imperial Government and from the Colonies of New South Wales, Cape Colony, South Australia, New Zealand, Victoria and Queensland. In his welcoming address to this body of representatives from so many of the integral parts of the Empire, Sir John Thompson was exceedingly happy, his assertion being that the heartiest aspirations of the people of Canada were that the deliberations of the Conference might result in wise and practical conclusions which would have the effect of binding the Colonies together in greater strength, and of making the motherland feel that the British Empire was becoming greater and stronger with the practical growth of self-government in British colonies throughout the world. The recommendations and suggestions of this Conference are already developing into acts that will no doubt eventually result in closer bonds cementing the Empire as a homogeneous whole.

The circumstances attending the death of Sir John Thompson were somewhat remarkable. Some months ago he was invited to become a member of the Privy Council of Her Majesty Queen Victoria; and on the day of his death he visited Windsor Castle, where Her Majesty then was, to be sworn as such, and afterwards to dine with the Queen. After having the high honor bestowed upon him of becoming a Councillor to his Sovereign, while partaking of luncheon with his distinguished confreres, he became suddenly ill, and before medical assistance could arrive, heart disease had put an end to his valuable life. At the very time he was enjoying the Royal hospitality, and virtually at the very approach to the throne, and almost in the immediate presence of her who was so pleased to bestow such distinguished honors upon her beloved Canadian servant, he was without notice called to another state of existence. The honors shown the dead by the British Government and people were such as are only bestowed upon the most distinguished personages, the Queen herself placing a wreath of well earned laurels upon the breast of the dead statesman; and as these words are being printed the war ship *Blenheim*, one of the fastest and most efficient cruisers of the British navy, is bearing towards Halifax, his last resting place, and the place where he was born, the mortal remains of Canada's beloved Premier, Sir John Thompson.

HON. MACKENZIE BOWELL, PREMIER OF CANADA.

The elevation of Hon. Mackenzie Bowell, Minister of Trade and Commerce, to be Premier of Canada vice Sir John Thompson, deceased, is an event with which all Canadians will cheerfully acquiesce, and a very large majority rejoice. It is no new and untried hand that has been called to assume control of the Government; and the

levelheadedness that has always characterized his management of those departments of the Government over which he has presided will, we are assured, mark and distinguish his course in the higher and wider sphere to which he has been called.

As far as politics and the policy of the Conservative party to which he is attached is concerned, Mr. Bowell accedes to his high office under most auspicious circumstances. There are no live political issues distracting the country, for the tariff question was only within the present year settled probably for years to come. The feeling that has been steadily gaining in Canada for several years, looking to closer trade relations with the Mother country and the British Empire generally has taken on a tangible form, dating from the Colonial Conference that began its sessions in Ottawa last June, the seeds there planted already showing signs of growing into results that will be of the greatest benefit to Canada. The desire, too, that the manufacturing industries of the country should be encouraged in their attempts to expand to proportions that would include a gratifyingly large foreign trade, has been and is being favorably responded to by the Government, and we now have an established line of large and fast steamers connecting Canada with China and Japan in one direction, and a similar line connecting us with Australia. At the invitation of the Government bids have been received for the construction of a sub-marine cable from Vancouver to the Australian colonies, and the time seems to be within measurable distance when telegraphic communication between Great Britain, via Canada and the Pacific cable, with Australia, will be an accomplished fact. We may also with even greater certainty depend upon a Canadian trans-Atlantic line of fast steamers that will enable transmission of passengers, mails and freight between this country and Great Britain with greater speed than by any other route.

It will be remembered that Mr. Bowell himself, in his desire to do all in his power to encourage closer commercial intercourse between Canada and Australia, visited the latter country last year and worked up an enthusiasm among the Colonial authorities and business men that is already bearing good fruit. It was at his suggestion and through his exertions that the recent Colonial Conference was brought about; and it was through him that a Commissioner to the Australian colonies was appointed, Mr. John S. Larke being now on his way to those colonies, where he will virtually perform the duties of a consul. This feature of the Government, so sedulously cultivated and encouraged by the Minister of Trade and Commerce, will not be neglected by the Premier.

These matters here alluded to have all passed their initial stages, and have become permanent features of the Government; and Mr. Bowell may felicitate himself that the care of them now will not prove an onerous burden upon his shoulders. He well knows that he has the whole country at his back in carrying out and developing these important undertakings; and his excellent business ability, long experience as a legislator and director of departmental affairs, unimpeachable character and agreeable disposition well fit him to assume the duties of the high office to which he has been called.

The intercourse that has existed between the manufacturers and Mr. Bowell has always been of the kindest and most agreeable character. He has always been ready to hear any statements they might desire to lay before him, and whether their wishes were acceded to or not they always felt that he was acting for the best interests of the country according to the lights before him. As minister of Trade and Commerce he was always exceeding active and solicitous for the largest success of the manufacturing industries of Canada, and we all know how he has traveled over the country, visiting about every important industrial establishment in it, the better to inform himself of our capabilities and possibilities in that direction. We know that he was untiring in doing this, regardless of his personal comfort, and aiming only to advance the greatness of the country for which he labored. And for this unselfish enthusiasm the manufacturers will ever hold Canada's new Premier in the highest esteem, and give him their most cordial support.

DR. MONTAGUE AND THE SUGAR DUTIES.

At the Conservative demonstration at Niagara Falls a few days ago, made in honor of the visit of Ministers J. C. Patterson and J. G. Haggart, the great speech of the occasion was made by Dr. Montague, the eloquent and talented member for Haldimand. Dr. Montague is one of the best posted men in Canada regarding politics, and may fairly be quoted as an authority in whatever facts he may advance. In the course of his speech, at a point where he was most unmercifully dissecting and reducing to shreds and tatters some of the theories recently advanced by Mr. Laurier to the effect that duties should be levied upon raw materials, in illustration showed that when Mr. Mackenzie was in power and Sir Richard Cartwright, Finance Minister, they had a tax of 50 per cent on raw sugar—2½ cents a pound, and a tax of 40 per cent on manufactured sugar, with the result that every sugar refinery in Canada was closed. According to the evidence, out of every 100 pounds of sugar consumed on Canadian tables, 96 pounds came from abroad and 4 pounds were manufactured here; and the price of granulated sugar was 10 cents per pound. "On the other hand," said the speaker, "the policy of the Conservative party is this: We have taken off the tax on raw sugar. We kept ½ of a cent per pound on granulated refined sugar. We are employing thousands of men on Canadian soil who are fed with Canadian farm products. We are using 300,000,000 pounds of sugar, and 96 pounds out of every 100 is manufactured at home, and instead of the price being 10 cents you are getting 20 pounds of granulated for \$1, last year the average price in this country being 4.93 cents per pound and in the United States 5.17 cents, and nearly every dollar's worth made by Canadian workmen." According to the revised report of this speech of Dr. Montague, published in *The Empire*, these declarations were received with cheers.

In our opinion if the success and permanency of the National Policy had to depend upon such unfair and misleading statements concerning the Canadian sugar refining industry, it would have been overthrown long ago;

and Dr. Montague was not felicitious in selecting that industry as an illustration of the benefits of protection. One unacquainted with the facts might reasonably suppose from the speaker's argument that whereas under the Mackenzie regime the duty upon raw sugar was 50 per cent—2½ cents per pound, and 40 per cent upon refined, immediately upon that party going out of power, and the advent of the Conservative party under Sir John Macdonald, raw sugar was placed in the free list and the duty upon refined reduced to ½ of a cent per pound. But the Ministers of the Government, and Dr. Montague, and many others must have laughed in their sleeves at such a palpable lapsus, well knowing as they did that for many years after the retirement of Mr. Mackenzie and his party from power Sir John's Government maintained a high duty upon both raw and refined sugars. It was only quite recently that Finance Minister Foster, making a merit of necessity, changed the sugar schedule of the tariff, placed very low grade sugar in the free list, and holding refined sugar, and all high grade unrefined sugar dutiable at the rate of \$16 per ton; and it was not until the last session of Parliament that a further and much needed amendment was made, reducing the duty on refined sugar to \$12.80 per ton—a reduction of 20 per cent—and admitting duty free all sugars not above number 16 Dutch standard.

The country has heard a great deal of late concerning the enormous iniquity of the American Sugar Trust; and it has been proven beyond question that under the McKinley tariff that extortionate concern have grown immensely wealthy, at the rate, perhaps, of a hundred million dollars per year, by and through the protection thrown around their industry. And yet there was but very little difference between the American and the Canadian tariff on sugar. Under the McKinley tariff raw sugar up to number 16 Dutch standard was free, while the duty upon refined was only one-half cent per pound, or \$10 per ton; while under the Canadian tariff raw sugar up to only number 14 Dutch standard was free, all above that standard being dutiable at four-fifths of a cent per pound, or \$16 per ton. It is true that the population of the United States is very much larger than that of Canada; but the per capita consumption of sugar is quite as great if not greater in this country than that. If, then, the American sugar refiners could make almost untold millions of dollars out of their opportunities, represented by a protective duty of \$10 per ton on all sugar over number 16 standard, what must the Canadian refiners have been doing under the higher protection of \$16 per ton on all sugar over number 14 standard?

Dr. Montague lays much stress upon the fact that whereas a number of years ago under the rule of the Liberal party, the retail price of granulated sugar in Canada was 10 cents per pound, now, under Conservative rule, the price of the article is reduced one-half. This argument, if it may so be called, is not fair, for the National Policy, nor the Conservative party, are no more to be credited with the reduction than they are to be charged with the failure of the farmers to receive the same price for their wheat now that was paid to them a dozen years ago. The National Policy had no more to do with re-

ducing the cost of sugar than it had with building the canals said to exist in the planet Mars.

Another misleading statement made by Dr. Montague was the suggestion that "we are employing thousands of men on Canadian soil" in the manufacture of refined sugar. Counting from the time the raw sugar is landed from ships bringing it from countries of production, and following it through all the manipulations it undergoes, with the exception of the coopers who make the barrels in which it is packed, and less than a thousand men employed in all the refineries—according to the last census returns, only about 700—the Canadian sugar industry affords but little more employment to Canadian workmen than if the refining were done in Germany or the United States. We are advocates and champions of the National Policy, but the protection granted under it should be measured as nearly as possible by the actual difference in cost of production in Canada and elsewhere. If it is less than that it is not protection—if it is more it is extortion. We see that in the United States a protection of \$10 per ton enabled the refiners to become multimillionaires, and with wealth enough to corrupt even the Congress; and Conservative statesmen and orators take much delight in pointing out the lamentable conditions prevailing with our neighbors; but neither statesmen, orators nor party organs seem to think it important to view the situation at home where for years, and until recently, Canadian sugar refiners were protected to the tune of \$16 per ton, and now receive \$12.80. Dr. Montague tells us that we are now using 300,000,000 pounds of sugar per year—150,000 tons, and that 96 per cent. of this pays this enormous tribute to Canadian refiners. Surely the search light of honest investigation should be turned in this direction.

We do not know the source from which Dr. Montague obtains his facts, but we challenge his assertion that last year the average price of granulated sugar in Canada was 4.93 cents per pound against 5.17 cents in the United States. We do not think that any such assertion can be substantiated.

GIVE THE FARMERS A CHANCE.

Dr. Montague in his Niagara Falls speech made some very telling points in his analysis of Mr. Laurier's proposition to levy import duties upon raw materials, but unfortunately some of his points were not so telling. One of these points without pungency had reference to the sugar duties and the refining industry, and this we have discussed at some length in another article; and we would like to make brief allusion to one or two other such points. In enumerating and commenting upon the effects that would be felt by the country if Mr. Laurier's views were carried into effect, Dr. Montague tells us that to raise the necessary revenue we would have to levy duties upon articles not produced in Canada, such as tea, coffee and other necessaries of life; also upon raw materials which cannot possibly be produced here, as, for instance, raw cotton, jute and raw sugar. In illustrating the fact that a tax upon raw materials is, every time, a tax upon the consumer, he says:—"Suppose, for example, you place a tax of a cent a pound upon the raw material from which binder twine is made—I mean manilla or sisal—that increases the

price of the manufactured article by one cent, and no amount of competition can overcome that increased price, because it is a price on the article (raw material) from which it is made."

The speaker here alludes to two articles (raw materials)—sugar and manilla—which are required in the manufacture of certain finished products—refined sugar and binder twine, making the more or less correct statement that neither of these raw materials can be produced in Canada. We would most heartily agree with this statement if it did not imply that these raw materials, or their full equivalent, could not possibly be produced in this country. It is very true that manilla, of which binder twine is made, can only be produced to advantage in tropical climates; and it is equally true that cane sugar, of which refined sugar is made, can only be produced to advantage in lands never touched by frosts. But all intelligent people know that manilla is not the only material of which binder twine can be manufactured; and they also know, or ought to know, that the great reduction in the price of sugar within the last decade, of which Dr. Montague spoke, is not attributable to the operation of the National Policy, but to the competition in the sugar markets of the world of the beet sugar produced in Germany, Austria, France and other European countries with the cane sugar of tropical climates.

Dr. Montague is not alone among the orators and leaders of his party, or of any party, in declining to discuss and analyze these two items of raw materials and the possibilities of their production, or of efficient substitutes for them, in Canada. On many occasions we have used these columns to demonstrate the fact that Canada is quite as well adapted, by soil, climate and all natural advantages, for the successful production of the sugar beet, and the manufacture of beet sugar, as the United States, Germany, Austria, France or any other country that has met with such gratifying success in their enterprising ventures in this direction. The experiments that have been already made in Canada as to the possibilities of the sugar beet as a field crop, and the examples we have constantly before us in other countries, have long since raised this question above the field of speculation, and have assured us that, if properly encouraged, we would soon cease to import raw sugar of any character, and that in this respect we would be independent of the world. In his Niagara Falls speech Dr. Montague pointed out that Canada imports about 300,000,000 pounds of raw sugar per year. The import cost of this foreign material is probably more than \$10,000,000; and it is most assuredly a suicidal policy to send this vast wealth out of the country year after year to pay for an article of prime necessity, and no effort whatever made by the Government to develop and establish the home industry. It is exceedingly incomprehensible that ministers of the Government, and their supporters and friends should give so much time to traveling over the country and explaining to the farmers the beauties of their political system, and at the same time most studiously refrain from discussing the certain possibility of retaining more than \$10,000,000 a year in the country that now flows out of it, and that, by adopting the cultivation of the sugar beet, this great wealth would go into their pockets.

A similar argument applies in the matter of raw material of which binder twine is made. As might be inferred from the remarks of Dr. Montague, manilla is not the only article from which this finished product may be constructed; and those at all acquainted with the cordage manufacturing industry of Canada know that before the recent hostile legislation affecting the industry quite a large proportion of the binder twine consumed in this country was made of hemp grown in Canadian fields, cultivated, harvested, manipulated and subsequently manufactured into such twine in Canadian factories. If special attention is being given by the Government to the needs of the farmer, why not encourage the growing of hemp and the substitution of it as far as practicable to the manufacture of binder twine. While the interests of farmers are being looked after let not this be neglected. If Government factories for the production of binder twine must be maintained in the penitentiaries at Toronto and Kingston, operated by convict labor, let the raw materials consumed in them be of domestic production, and give the farmers the opportunity to supply it. Give the farmers a chance.

LORD JERSEY'S REPORT.

The report of the Earl of Jersey to the Home Government on the recent Inter-colonial conference, which has just been published, is most favorable to Canada. Discussing it the Montreal Gazette says:—

His recommendation of an imperial subsidy of £75,000 for the fast Atlantic service, if acted upon by the home Government, will place the undertaking on a financial basis almost beyond criticism. Mr. Andrew Allan, who was never favorably impressed with the project of a 20-knot service, was willing to undertake it for a subsidy of \$1,263,600. If Lord Jersey's suggestion is approved, Mr. Huddart will get \$364,500 from the Imperial Government, in addition to \$750,000 from the Dominion, making a total of \$1,114,500. The substantial support given by the Imperial Government will help to convince the British investors of the soundness of the scheme, and Mr. Huddart is now much nearer success than ever he has been before. Of course the imperial subsidy is not granted yet, but with such an ardent Imperialist as Lord Rosebery at the head of the Government there can be little doubt that Earl Jersey's suggestion will receive favorable consideration.

Of much greater importance for the future, if not for the present, are Lord Jersey's references to the question of preferential trade within the bounds of the Empire. Lord Jersey has not visited the colonies in vain. He has succeeded in clearing his mind from the bigoted prejudice in favor of free trade which marks the insular Englishman. He sees nothing to prevent the colonies making preferential arrangements with one another. The Belgian and German treaties prevent Great Britain from receiving any favor from the colonies which is not also shared by those countries; but Lord Jersey suggests that Belgium and Germany should be approached with the view of this restriction being moved. He even discusses the adoption by the mother country of a preferential tariff for the colonies, which British statesmen hitherto have treated as beyond the pale of practical politics. He impresses upon

the Imperial Government the importance attached by the colonies to connection with the mother land, "It is within the power of Great Britain," he says, "to settle the direction of their trade and the current of their sentiments for many generations. Such an opportunity may not soon occur, as the sands of time run down quickly. There is impatience for action, which would be tried by delay and most sadly disappointed by indifference to the proposals now brought forward."

Lord Jersey has earned the gratitude of the colonies by the sympathetic and impressive manner in which he has laid their desires, aspirations and plans before the home Government. It may be that the most important part of his report, that referring to preferential trade within the Empire, will not bear fruit for many years. But it is believed the time will come when this report will be looked backward to, as that of Lord Durham is now, as marking a new era in the history of the colonies and of the Empire of which they form a part. It is certainly a state paper of very great importance, perhaps the most important issued in connection with the colonies for many years past.

IMPORTANT JUDICIAL DECISION.

A most important decision affecting manufacturers and importers was rendered in the Exchequer Court in Montreal a few days ago. It will be remembered that a few weeks ago a seizure was made in Montreal by the Customs officers of a quantity of imported jute cloth because of undervaluation and evasion, the parties concerned being the Dominion Bag Company, the Canada Jute Company and the Consumers' Cordage Company. When it was brought to the attention of Mr. Wallace, the Controller of Customs, that the seizure had been made, and he was requested by the Customs officers at Montreal to order the confiscation of the goods, very strong opposition was made thereto by the parties interested; and as there appeared to be ambiguity in the laws bearing on the case, and because of the great and general importance of it, the Controller very properly declined to adjudicate it, and referred it to the Exchequer Court.

This test suit was brought against the Dominion Bag Company, charged with evading the Customs law in the importation of jute cloth; and in rendering the decision of the Court, Justice Burbridge said:

The main question to be determined is whether the jute cloth that has been cropped is dutiable or not under the act in force prior to the 27th of March, 1894, and what is the true construction of the item in the tariff, 261, which is "Jute, manufactures of, not elsewhere specified, 20 per cent. ad valorem," and 673, "Jute cloth as taken from the loom, neither pressed, mangled, calandered, nor in any way finished," shall be entered free. In a case like this, where the interpretation of the statute has been acted upon by the importers with the knowledge and consent of the customs authorities, and where the same interpretation has been adopted by the customs, where there is good faith and where there is no question of attempting to defraud the Government, where the evidence shows that the consumer gets the benefit of the free entry, and where if duty is imposed it must fall altogether upon the manufacturer and importer, who cannot in any way reimburse himself by increasing the price of the goods; I think in a case like this to put a new construction upon the statute will work injustice to the manufacturer and importer, and I think

that the customs authorities have found out too late that they made a mistake, and that they had as good an opportunity to find out before as the importers, but nothing was done, although they had appraisers. If such a construction as that were open, I think to do right in this case in regard to the old entries, and in regard to the goods that have been imported and entered free, I would be doing right by saying the entries should stand and not be opened up. But I do not rest my judgment upon that. I base my judgment upon this, that the case is a doubtful one for the Crown, and I cannot put the parties back in their original position if I adopt the new construction. I am not in a position now, after all these years, to say that the customs people having acted upon the act could put a different construction in regard to those goods so imported. I think the seizure should be released, and I accordingly quash the seizure. That disposes of the whole case except with regard to importations which have taken place since the 27th of March, 1894. I have nothing before me to show whether any cropped jute cloth has been imported by the claimants since that date. I will direct a reference to the Registrar to inquire and report as to whether any of the cropped jute cloth in question has been imported since the 27th of March, 1894, and I will not determine, but I leave open to be argued upon the report any question that may arise as to whether that is the correct date or not on which the new tariff came in force, and I shall reserve the costs until that question is disposed of.

A GREAT COUNTRY AND ITS DEVELOPMENT.

The Hon. Sir Charles Tupper, High Commissioner for Canada in London, delivered the anniversary address of the Royal Scottish Geographical Society, Edinburgh, on November 12, his subject being the Economical Development of Canada, in which after giving a brief outline of some facts in connection with the influence which the geographical conditions of Canada have exercised on its economic and political development, he said that since 1867 the various colonies united as the Dominion of Canada have entered upon an era pregnant with promise. The continued isolation of the provinces meant waste of effort and the danger of becoming dependent on a foreign power, with the prospect of ultimate absorption. As population grew and wealth accumulated the absorption in purely local development became less pronounced. British North Americans became more familiar with true significance of their heritage on that continent, of the future which awaited its development, and were drawn irresistibly toward the elaboration of a plan calculated to promote that end. The friends of confederation in the maritime province determined to take the initiative. Awaiting the adhesion of the larger provinces of Quebec and Ontario, they proposed at all events to unite among themselves. At a conference in 1864, held at Charlottetown, Prince Edward Island, the delegates agreed upon a basis of confederation, and at the conference of the several colonies with the imperial government held in London in 1866-67, the terms of the act of union passed by the act of Parliament were arranged. To this union of the British North American colonies was undoubtedly due the present predominant position of the Dominion of Canada with the empire. Prince Edward Island joined the confederation in 1873, thus completing the union of all the British North American colonies, except Newfoundland, under one government. There was a certain simplicity in the distribution of the external trade of

the Dominion, Great Britain and the United States enjoying almost a complete monopoly. The proportions of the returns of 1893, the latest for which details were available were as follows: The United Kingdom took from Canada produce to the value of \$64,080,493, or 54.05 per cent of the total exports, and supplied \$43,305,222, or 33.55 per cent. of the total imports; the United States took \$43,923,010, or 37.05 per cent. of the exports, and supplied \$65,065,846, or 50.41 per cent. of the imports. The two countries controlled, therefore, 87.5 per cent. of the total trade. Canada's geographical position conduced to intimate trade exchanges with the United States, and her position industrially, as against the United States, was assured by the policy of incidental protection. Great Britain's policy of free imports during the last forty years had been dictated by her condition, circumstances and resources, the effect of which when crystalized they called self-interest. Nobody, he imagined, considered these conditions would last forever. They would vary and change, and demand corresponding modification in the policy in which the enlightened self-interest of the day was expressed. It was impossible for this country to ignore the fact that all the great self-governing colonies had been drawn toward protection by the same compulsion, viz., self-interest, and he took it the extraordinary development of the colonies showed that they had been the best judges of their own affairs. As they might know, he had a very strong belief that the not distant future would see a considerable change of policy both in this country and the colonies in regard to the development of intercolonial and imperial trade, and that the change necessary to bring this about would not be all on the side of the colonies. He had always refused to discuss the questions of protection and free trade as matters of abstract principle in relation to the practical needs of Canada. He had been content to dwell on the fact that they had in Canada a certain population which was vastly exceeded by that of the great nation along their southern border, and that it was impossible to carry on their general affairs of Canada successfully without paying some regard to the close proximity and fiscal policy of the great republic. In the new tariff passed through the Dominion Parliament last July, Canada had given proof of her desire to discriminate in favor of British imports. One of the most encouraging and significant facts during the last four years had been the stability of Canada's trade. There was hardly a country that could show the steady progress made by Canada in the face of commercial disturbance, the breakdown of credit, and financial depression of the severest kind in other countries. Canada has not only survived but she has forgotten the McKinley tariff of 1891. This measure, it was expected, would cripple her commercially in so far as United States trade was concerned. Events proved the McKinley tariff legislation to be a blessing in disguise. Anticipating the worst, Canadians set to work to find new markets for the threatened exports which were to be thrown on their hands. The government and its agents abroad co-operated to their utmost. The result of this foresight and activity was that Canada vastly increased her exports to the British market, and opened up fresh markets in other countries hitherto untried, and at the same time actually increased her total exports to the United

States. The position had been increasingly maintained to the present hour. On the heels of the McKinley tariff came the financial crisis of 1892-93, the difficulties of Australian financial institutions, and the impairment of credit, accompanied by great stringency of money in the United States. Canada remained comparatively unaffected by these misfortunes. Down to the present time there had been only one small bank failure in Canada, and that even was not due to financial depression. In the United States over 200 national banks closed their doors in 1892; or, including state and private banks, savings banks and loan societies, over 600 financial institutions succumbed. Canada's position had undoubtedly been improved by the prudence of her commercial men and the soundness of her banking system. Perhaps the greatest factor in the situation had been the circumstance, as they were recently told by the president of the Bank of British North America, that "Canada banks on her own capital, and does not borrow money, as so many colonial banks do, on deposit, which generally fails to be repaid at most inconvenient times." Sir Charles went on to speak of the coal measures which, he said, occurred most extensively on the Atlantic coast, in the western prairie regions, and on the Pacific coast. Iron ore of every variety and richness suitable for steel was present in the greatest abundance in Nova Scotia, as well as in Quebec and Ontario. And, apart from the growth and prospects of the iron industry of Canada, he should like to direct the attention of English and Scotch ironmasters to the advantage of these deposits as an alternative source of supply to Spanish ores. Their occurrence in Nova Scotia, on or within easy reach of tidewater, insured cheap transportation all the year round. Probably the greatest mineral discovery of recent years had been the nickel ore deposits at Sudbury, in Western Ontario. They were the largest known, and promised to affect profoundly the steel industry of the world in the immediate future. The United States government took a large portion of the present output for the armor plates of their new warships now building. The colonization of the Dominion was naturally the most important matter that could engage the attention of Canadians, as upon it the continued progress of the country ultimately depended. Canada's prairie regions offered, probably, the greatest area of land still available for the settlement of the races from northern, central and western Europe. Now railways penetrating in every direction rendered enormous areas easily accessible for free selection, and secured the economical transportation of produce. The soil was of the richest description, and with perseverance and patience there was unquestionably an immediate livelihood, with the prospect of a competency in the near future before every settler. Emigration from the United Kingdom, and Europe generally, had slackened during the present year owing to obvious causes. But with the improvement now noticeable in the general situation, the flow would be resumed in increased volume, and Canada would obtain a larger share of emigration as time went on. The present year would be historically memorable for at least two events of economic and political importance which had taken place. The Canadian Parliament ratified, on July 19, the treaty which the Marquis of Dufferin and Ava and himself, as plenipotentiaries for Great

Britain, had the honor of negotiating in Paris for the extension of trade between France and Canada. It was not too much to say that this event marked a new era in the constitutional history of the self-governing dependencies of the British empire, and set the seal upon the powers given to Canada in the ordering of her external trade relations. It recognized in the most emphatic manner the growing importance of the colonies in the hegemony of the empire, and was a sign of the process of readjustment in the attitude of the mother country towards her adult offspring now in progress. The second and the greater event had been the meeting of the Imperial and Intercolonial Conference at Ottawa, to discuss and elaborate measures for the development and increase of trade within the empire, and intercommunication by means of fast lines of steamships and by cables. The conference unanimously asked the imperial government to take the measures necessary to remove the obstructions that now interfere with preferential trade between the colonies and between themselves and the mother country. The same unanimity characterized their resolutions in favor of steamship communications between the United Kingdom and Australia via Canada, and the construction of a Pacific cable from Canada to Australia. In view of these facts, who could doubt that this conference marked an important epoch in the development of the British empire, which would result in a great expansion of intercolonial and imperial trade, and render the union between the colonies and the mother country still closer and more indissoluble.

PROFITS IN THE MANUFACTURE OF ELECTRICAL APPLIANCES.

A great many remarkable facts have developed in the civic investigation now being carried on in Toronto regarding hoodling as between city aldermen, the Toronto Railway Company, and different parties interested in electrical industries. It will be remembered that the Edison General Electric Company did business in Toronto for some time under the management of Mr. M. D. Barr, superintendent of this district, and until the business was absorbed by the Canadian General Electric Company. Mr. Barr seems to have been considerably mixed up in the hoodling business going on at the time; and a few days ago he was induced to come from New York to Toronto to give evidence in the investigation. The following is a synopsis of the evidence given by Mr. Barr before Judge McDougall on last Saturday:

Mr. Barr is the gentleman who entered into an agreement with Messrs. Hall and Hewitt by which they were to use their influence for the street railway for a consideration of \$4,000 to secure the contract for car equipment for the Edison company. Mr. Barr's evidence was of a most sensational nature. He told how at first the Edison company, or gentlemen connected with the company, proposed to tender for the Toronto franchise, and how, after an interview with Mr. Everett, Mr. Muir, of the Edison company, advised him not to do anything further along that line nor worry about the order for equipment, as the Edison company was sure to get it. Finally after a great deal of correspondence, the Edi-

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What leading Manufacturers say about DODGE WOOD SPLIT PULLEYS.

DESERONTO, ONT., Nov. 28th, 1894.
 THE DODGE WOOD SPLIT PULLEY CO., Toronto.

DEAR SIR,—We have your favor of the 27th inst., and in reply would say that we are well pleased with the many wood split pulleys you have furnished us. We have had good service from them.

Yours truly, THE RATHBUN CO.

HULL, QUE., Nov. 29th, 1894.
 THE DODGE WOOD SPLIT PULLEY CO., Toronto.

GENTLEMEN,—We take great pleasure in stating that we have a number of your wood split belt pulleys in use in our mills, and that they give us every satisfaction, and we can recommend them heartily. Also, if any of our neighbors in this section would like to see them in operation, we should be pleased to show them at any time.

Yours very truly, BUELL, HURDMAN & CO.,
 Lumber Manufacturers.

TORONTO, Nov. 29th, 1894.
 DODGE WOOD SPLIT PULLEY CO.,
 68 King St. W., City.

GENTLEMEN,—We have had in use in our different factories for a number of years your belt pulleys, and beg to state that they have given us excellent satisfaction.

Yours truly,
 MASSEY-HARRIS CO., LTD., Machinery.
 (Sgd.) L. M. JONES, Gen. Mgr.

HULL, QUE., Nov. 29th, 1894.
 MESSRS. THE DODGE WOOD SPLIT PULLEY CO.,
 Toronto, Ontario.

GENTLEMEN,—Our new steam mill finished last season is fitted almost entirely with your pulleys, and since they started have had no fault to find with them. We believe they are all you state.

Yours truly, GILMORE & HUGHSON,
 Lumber Manufacturers.

HULL, QUE., Dec. 3rd, 1894.
 MESSRS. THE DODGE WOOD SPLIT PULLEY CO.,
 Toronto, Ontario.

DEAR SIR,—Your letter of the 27th was duly received. The pulleys we have had from you so far, and they number a good many, have given us good satisfaction. We are glad to say so now, and hope we shall never have occasion to change our opinion.

Yours truly, THE E. B. EDDY CO., LTD.

OTTAWA, ONT., Dec. 14th, 1894.
 DODGE WOOD SPLIT PULLEY CO., Toronto.

GENTLEMEN,—We have much pleasure in stating that the wood split belt pulleys furnished us have given perfect satisfaction.

Yours truly,
 THE OTTAWA ELECTRIC CO.
 (Sgd.) A. A. DION, Gen. Supt.

Do not buy imitations or experiments but insist upon having the Genuine "Dodge."

Sole
Manufacturers

Dodge Wood Split Pulley Co.,

68 King St. W.,
TORONTO.

son company did get the contract at the rate of \$1,850 per car for 200 cars. This contract yielded a profit of \$1,000 per car to the Edison company. On being asked if this was not a mistake Mr. Barr repeated most emphatically that it was not, and that he was now selling electric equipment in the United States at \$650 per car. This means that the Edison company on work that cost \$172,000 made \$200,000 profit, and the inference is that a large part of this profit was the price paid for the Edison company's friends' withdrawal from the position of competitors for the franchise. Mr. Barr's evidence also gave the first direct proof of questionable relations between aldermen and the Kiely-Everett syndicate. He stated that Mr. Muir, of the Edison company, came from New York for the express purpose of having an interview with Hall, Hewitt and Everett in regard to the contract for car equipments, and that Mr. Muir, on returning from that interview, had stated that he felt satisfied Hall and Hewitt had the pull in the awarding of these contracts. It was arranged, Mr. Barr said, that Hall and Hewitt were to have all over \$2,100 per car equipment as their share, and as at that time it was hoped the price would be \$2,300 or \$2,400, their share would be \$40,000 or \$50,000. Finally, however, a fixed sum of \$5,000 was paid, of which \$1,000 was paid to Hall, through Johnston, as a retainer. Witness, when arranging with Hall for this payment in September, 1891, while he was still a member of the council, understood perfectly that it was Mr. Hall's service as an alderman he was retaining, and the form of retaining him as a solicitor was merely a pretence. Mr. Barr was questioned at length

by Mr. Hall and stated that the \$1,000 were paid in September to Johnston to take to Hall. The net result of Mr. Barr's evidence is to show that Mr. Everett, for some reason to be explained by him, permitted Ald. Hall and Hewitt to control in some degree the letting of a street railway contract involving hundreds of thousands of dollars.

EDITORIAL NOTES.

TO WHOM IT MAY CONCERN.—In the reports published in the Toronto daily papers on December 18 instant, regarding the civic investigation now being held in this city before Judge McDougall, in the cross examination of Mr. A. T. Johnson by ex-alderman W. M. Hall, in which counsel Nesbitt took part, it was stated that Mr. Hall was to obtain an interest in the CANADIAN MANUFACTURER as a reward for championing the cause of the Thomson-Houston people in their efforts to sell electrical car equipments to the Toronto Railway Company. As owners of a controlling interest in the CANADIAN MANUFACTURER, we most emphatically declare that as far as we are concerned no such proposition was ever made to Mr. Hall or to any other person; and that we have no interest whatever, nor have we ever had, in the Thomson-Houston concern.

J. J. CASSIDY,
J. C. GARDNER.

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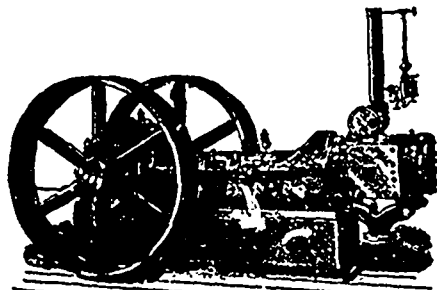
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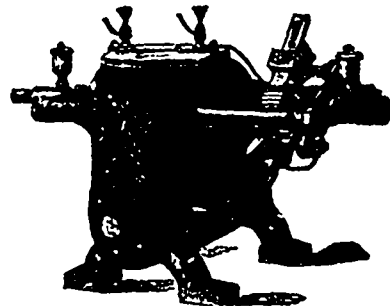
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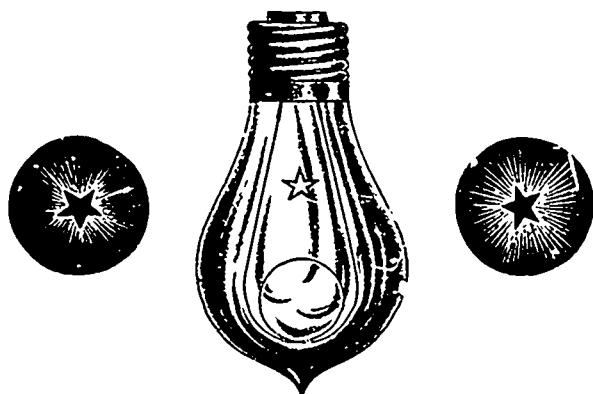
The Toronto Globe, alluding to the recent elections in the United States, speaking of the fact that the Republicans will have a majority in the next Congress, says that this is a result that many Canadians will regret. It tells us that "the dominant factor in the contest was that the country was not prosperous, and that many people in all walks of life were suffering in pocket, and that the reasoning that distinguishes popular judgments in these conditions are laid to the account of the Democrats instead of where it belongs, namely, the vicious financial and fiscal policy of the Republicans, the evil effect of which their opponents inherited." It may be that The Globe and those who think with it, and who are opposed to any sort of tariff protection to domestic manufacturing industries, may regret the political land slide in the United States, but it should be remembered that for many long years Canada has with even greater persistence than that shown by the Republican party in the United States clung to the National Policy with bull-dog tenacity; and they are not among those who regret the change in the United States. It is true that at the time the elections in the United States occurred the country was not prosperous, and that people were suffering in pocket because of the stagnation, but this was brought about not by the existence of the tariff but because of the threat so long and persistently held over the people that as soon as the Democratic party came into power they would direct all legislation in the direction of free trade, and approach that end as rapidly as possible. This caused uncertainty in all commercial and manufacturing transactions with the result that factories

and work shops were closed, railroads were restricted in their business and forced into liquidation, hundreds of banks and banking institutions were closed up, and a general gloom overspread the country. This condition was the direct result of the election of Mr. Cleveland, and no wonder that the people, finding themselves in such a forlorn condition, took advantage of the first opportunity presented to them to bring about a political revolution which will restore the protective system and prosperity to the country at the same time. The Globe desires to know if the Republicans will re-enact the McKinley Bill. It may not be that that particular law will be re-enacted, but it is morally certain that when they have the ability to do so, which will be two years from now, the tariff bill that will be enacted will not be very different from that of which Mr. McKinley is the father.

At a recent session of the Farmers' National Congress at Parkersburg, W. Va., a resolution was passed declaring that there ought not to be any reduction in the present rate of postage on any class of mail matter before there is any free daily mail delivery in towns and villages throughout the farming regions. This is a demand for a postal reform which should apply to a greater or less extent in Canada as well as in the United States. The demand of the Farmers' Congress is not for frequent delivery in small towns and villages but for one delivery each day. Another resolution passed by the Congress is as follows:—

Resolved: That justice to the farmer and the best interests of all, demand that free mail delivery be extended in

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Full Candle Power. Long Life. Low Price.

Made of any Candle-Power and Voltage, and with bases to suit the different sockets in use.

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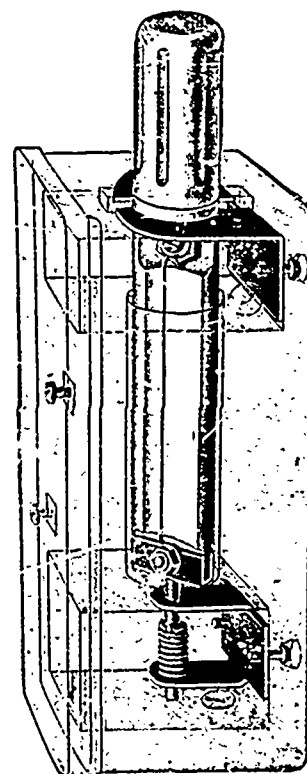
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towns and villages, and into farms as rapidly as possible without making an onerous increase in the net expense of the Post Office Department.

If this idea should ever eventuate in a law, the free delivery of mail matter in the rural regions would be an educating measure of vast importance. As electric street railroads increases largely the intercourse between the different localities in the cities in which they are, so the daily appearance in the country of the letter-carrier on his rounds would draw town and country closer together, and this would be all the more possible and easily accomplished as the electric roads radiate from the cities into their surrounding territory. Free mail delivery would thus tend to spread intelligence throughout the rural regions and would gradually cause an immense increase in the number of letters passing through the mails. As postal cards are now used by thousands and tens of thousands of persons who might never have sent a letter through the mails so the extension of free delivery into the country will educate the rural communities into the use of the post office and communication with their friends by letter. This system has already been tried in England with gratifying success, and it is to be hoped that our postal authorities will see their way clear towards following a similar course.

In order to place before those interested in the trade of the country, statements of the values of imports and exports, revenues and expenditures, as compared with figures showing those for the corresponding months in the previous year, and such other general information, including

tariff changes, as it may be important to Canadian exporters and others that they should be furnished with as early as possible after coming into force, the Minister of Trade and Commerce has directed the publication of quarterly reports of the operations of his department, supplemental to those issued annually. The first of these reports, covering the quarter ending September 30, has just been issued. It contains, in addition to tables of imports and exports, some interesting information with regard to new tariffs within the empire, including that of Canada, British India, Jersey and Guernsey and St. Vincent. Tariff changes are also noted in connection with the following portions of the British empire: United Kingdom, Victoria, Mauritius, Gold Coast, Cape Colony, Gambia, British Guiana, Trinidad, the Bahamas and Bermuda. Reports of commercial agents in the British West Indies, Australia and Norway and Sweden are also given. The report closes with some interesting trade notes, which will be of value to Canadian shippers.

The Electrical World publishes the views of a large number of business men in the United States connected with the electrical and allied trades in regard to the business effect of the recent elections in that country, regarding which it says:—

As will be seen, the concensus of opinion is that the result will lead to an early amelioration of business conditions, with a probability of the good effect extending over several years at least. While political faith is doubtless a factor in some of the opinions expressed, yet there must be a basis of fact to account for the substantial unanimity

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DEAR SIR:—You have built me a good mill, and I am doing a good business. I like the running of mill. I am well satisfied with mill. Mill makes best separations I ever saw. The flour is thoroughly separated from the bran and shorts. It can't help but make good results. There are good reports coming in from our flour wherever it has gone. Have not had occasion to solicit orders, as we have been selling and gisting our flour as fast as we could make it. Have people come 100 miles. Everyone seems well satisfied with flour. Have not been able to make enough yet to fill demands.

PRINCE ALBERT, N. W. T., Nov. 5th, 1894.

Yours truly,
JOSEPH KIDD.

WM. & J. G. GREEY, Toronto.

DEAR SIR:—Mill running A.1. and in first-class condition.

MARTINTOWN, ONT., Jan. 1st, 1894.
THOMAS WILLING.

WM. & J. G. GREEY, Toronto.

DEAR SIR:—I am operating the mill you built for the Whitewood Milling Co. I consider, for a fifty barrel mill, it is pretty hard to beat.

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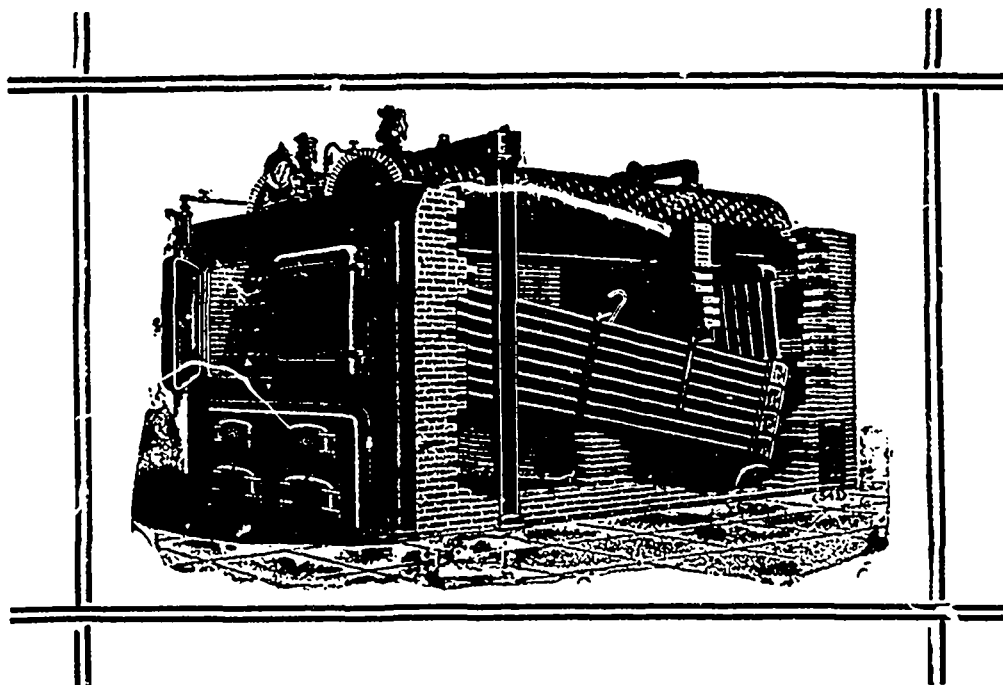
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of opinion held, for business men as a rule are too hard headed to let their political beliefs run away with their business judgment. That the tariff question, though not directly at issue, was a large factor in some localities, is undoubted. Aside from this, however, was the intense dissatisfaction at the manner in which the business interests of the entire country were kept in suspense for months while the Senate was squabbling over the silver and tariff bills. It is but natural that the deplorable tactics of delay then pursued, regardless of the destructive effect of this delay on the business interests of the entire country, should have exasperated even the stoutest of partisans, and when with this was coupled the suspicion that corrupt motives were also involved, it is not at all surprising that there should follow such an overwhelming rebuke as that just administered. With those driven from power who had to bear the responsibility for this state of affairs, and with the party which has succeeded in no position, for several years, at least, to reopen the questions which produced such demoralization, there is every assurance that we shall now enjoy the stable conditions so necessary to commercial prosperity. Nothing is to be so sincerely regretted as the demoralizing effect which partisan or corrupt politics may have on the business interests of the country, and it is to be hoped that the severe chastisement of November 6th will have a beneficial effect for years to come.

We are well pleased to notice that while Hon. Mr. Haggart, Minister of Railways and Canals, has been visiting different parts of Ontario, he spent part of his time on the Niagara peninsular and in the vicinity of the Welland canals. We sincerely hope that while he was there he made close inspection of those works, and observed that while one of them at least was constructed more than

fifty years ago, and is in quite as good condition now as then, and that with the exception of the incomplete canal at Sault Ste. Marie, they are the most important works of the kind in Canada, the Thorold cement entering into their construction shows no signs whatever of deterioration. As its name implies this cement was manufactured virtually on the place where it was consumed; and no quantity whatever of Portland cement, so called, was used. This should teach Mr. Haggart that notwithstanding the protests of imported official experts, for such work as canal construction Canada can and does produce as good cement as can be made anywhere else in the world.

A special telegram from Port Colborne, Ont., published in The Empire a few days ago reported that the ministerial party, including Hon. J. C. Patterson, Minister of Militia, and Hon. J. G. Haggart, Minister of Railways and Canals, and Dr. Montague the member of Parliament for Haldimand, had spent a couple of hours at that place going through the works of the Ontario Silver Plating Company; and the statement was made that this is the only plated ware works in Canada, the visitors being surprised at the sight of literally bushels of knives, forks, carvers, spoons, etc., in every stage of manufacture. We quite heartily endorse all the pleasant things said of the Port Colborne factory, but we protest against the statement that it is the only plated ware works in Canada, and we are more than surprised that such an unwise and unwarranted assertion should have appeared in the columns of The Empire. There are two large concerns of that character here in

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Toronto, one in Hamilton, and one or more in Montreal, besides quite a large number of smaller ones in different places, to all of which such a statement is a gross injustice.

The report has been freely circulated in the newspapers that the Waterous Engine Works Co., of Brantford, Ont., intended to change their location and establish similar works but on a larger scale in some other place. We are authorized by Mr. C. H. Waterous to state that these reports were caused by the company contemplating making some temporary addition to their works, with the view, in a short time, of moving to a more desirable location, not necessarily outside of Brantford. As their works are located in the centre of the city the noise and dirt attendant thereto is objectionable for many reasons; and, as the city requires more land for municipal purposes, the authorities are discussing the question of purchasing the site of the Waterous Works. Should they do so it is probable that the new works will be erected in Brantford.

A telegram from Toledo, Ohio, a few days ago was to the effect that the Craig Shipbuilding Company, of that city, confirm the report that they have been awarded the

contract for building the two large ferry boats, which are to carry the Pittsburg, Shenango and Lake Erie cars between Conneaut on the American side and Port Dover on the Canadian side. The boats will be very similar to those in use on the Ann Arbor line to carry cars across Lake Michigan. The new boats will have the capacity to carry 24 loaded cars each, and will cost about \$200,000 each. They must be completed by June 1, 1895. They are to be provided with ice crushers, so they can run winter and summer. The chief traffic of these boats will be the transferring of coal from the American side to the Canadian shore, and bringing back lumber, ore and copper. The purpose of the plan is to cut off the long haul of cars from Conneaut round by Buffalo and thence through Canada via the Suspension Bridge. The ferryboat will make a saving of over 250 miles to the trip.

Messrs. Bell & Barlee, Lakesfield, Ont., are introducing

ON HAND - - -

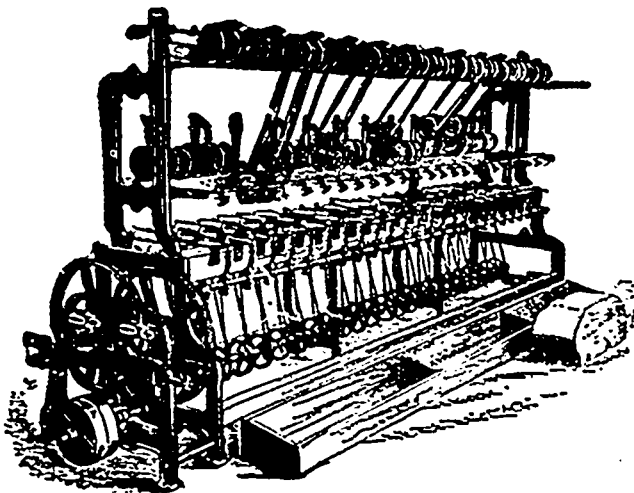
1 16x42 Reynolds' Corliss Engine

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a crude oil burner for which they have recently been granted a patent, for which they claim great excellence. It is specially adapted for singers for pork packers or any other such purpose where intense and steady heat is required; as well as for firing steam boilers, etc. In its use there is no dust, no dirt, no smoke, no ashes, and a saving of at least 30 per cent. is made in cost of fuel.

Mr. J. S. Larke, Canadian Commissioner to the Australian Colonies, sailed on steamer Warrimoo from Vancouver, on December 16 inst. for the scene of his labors, accompanied by his family and the good wishes of Canadians generally, and of the manufacturers specially. Mr. Larke's mission is one of the utmost importance to manufacturers who desire to do an export business; and the well known and generally acknowledged abilities of Mr. Larke are a guarantee that whatever can be done will be done, and well done, to advance the interests of Canada in that far-away country.

A jury in the City Court in Brooklyn, N. Y., a few months ago, gave judgment for \$22,500 in favor of Annie Tholen, the eight-year-old daughter of John S. Tholen, in her suit against the Brooklyn City Railroad Company. The girl had lost both her legs by being run over by a Third avenue trolley car. The father also recovered \$3,000 from the company for the loss of his daughter's services. The company appealed in each case. The General Term has handed down a decision sustaining both verdicts. The court censured the motorman.

Brilliant Orseille C. Pat'd.

The Wm. J. Matheson & Co., New York, with branch house at Montreal, have sent us a circular having reference to their Brilliant Orseille C., pat'd., a new dye stuff for wool, manufactured by their principles, Messrs. Leopold Cassella & Company. Regarding it they say:

It is very readily soluble, of a clear, bright shade and of great

tinctorial power. It gives very level dyeings. Its principle use we think will be in dyeing with other acid colors.

Wool is dyed in an acid bath as usual. Dyeings on wool do not suffer from alkaline street dirt and are very fast to stoving and steaming. When woollen pieces interwoven with cotton threads are used with Brilliant Orseille C., the cotton will not be tinted.

This new dyestuff replaces Acid Magenta which it surpasses in fastness to light and especially in fastness to alkalis and is at the same time cheaper. Its value for compound shades produced with our well known Cyanole Extra and Orange G.G., are illustrated in the dyeing or sample cards herewith sent showing some applications of the colors.

Our Orange G. G. differs from all other yellows by its clear yellow shade and extreme fastness to light, while Cyanole Extra deserves the first place among the various substitutes for Carmine or Indigo on account of its dyeing so very evenly, its great fastness and its really beautiful, clear shade, which does not change in artificial light.

Brilliant Orseille C., will be found very suitable for wool-printing. It is printed in the usual manner, with acid, and gives very clean-cut patterns.

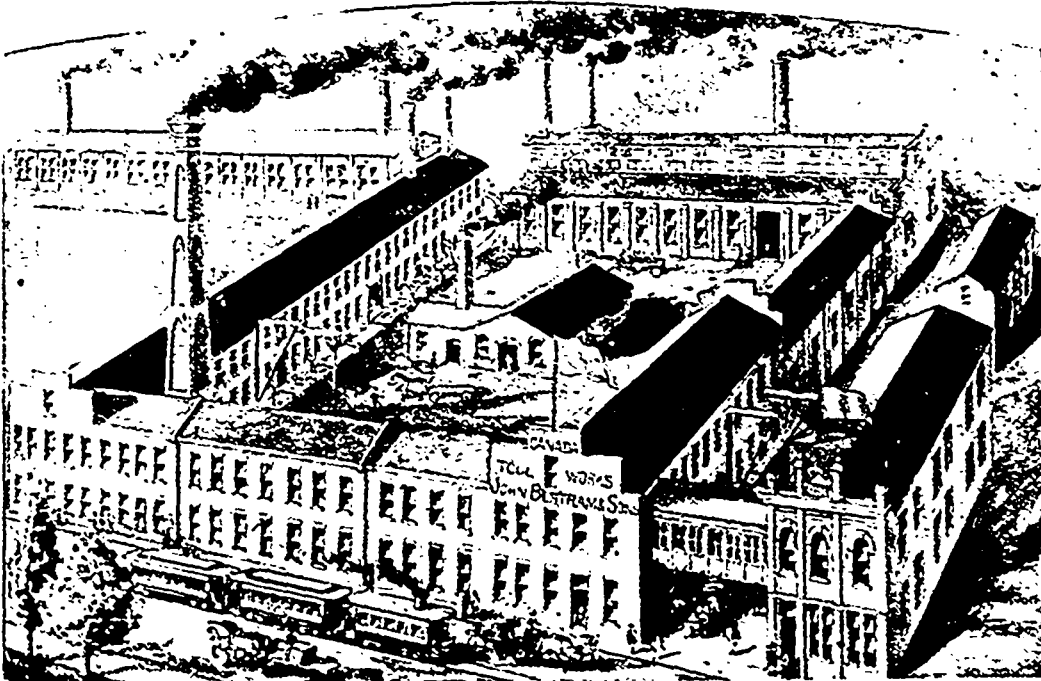
We will be glad to send you samples and prices.

VALVES and - Pipe : : Fittings

Write for Latest Prices.

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CANADA TOOL WORKS, Floor Space 60,000 Square Feet.

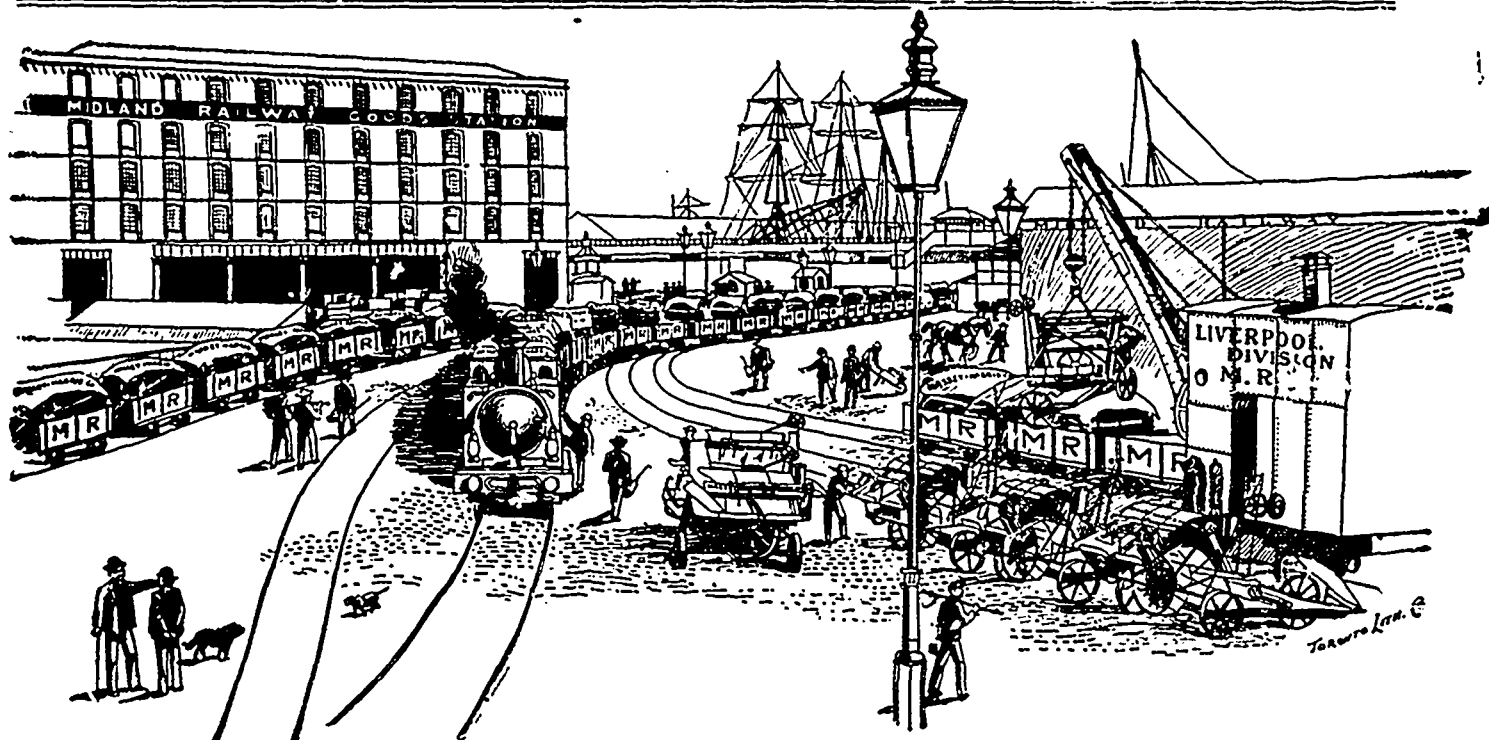
Highest Award, World's Fair, 1893. Bronze Medal and Award, Quebec Provincial, 1894.

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Correspondence Solicited.

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Canadian Export Trade.

The accompanying illustration and description of a characteristic event now becoming quite frequent in Canadian export trade was published in the last issue of Massey's Illustrated; and we are under obligations to the Massey-Harris Co., of Toronto, for the use of the electro illustrating the following:—

One morning last August, there was great bustle and stir in one of the great Midland Railway freight yards, in Liverpool, England. An unusual occurrence had attracted a crowd of passers-by, while the railway employees and warehousemen had left their work to take in the novel sight. At last when all was ready the engine whistle blew and amidst the hearty cheers of onlookers, a solid train load of twenty-six car loads of Canadian self-binding harvesters, all decorated and placarded with the name Massey-Harris Co., started on their journey to the leading agricultural counties of Old England—the first time in Britain's history that any concern, foreign or domestic, had ever manifested such enterprise. John Bull's newspapers and trade circles were greatly interested in the event, and no wonder. Canadians should all be proud of this achievement. The rapidity with which the goods were handled by the company's European

branch is also worthy of comment. Within twelve hours from the receipt of the packing cases from the ocean steamship, the parts were all put together, and the machines erected complete ready for loading. As will be seen by the illustration, the English methods of shipping are entirely different to those of Canadian railroads. There the machines are erected complete, placed on a binder truck (every purchaser of a binder in Great Britain also buys a binder transport) and then hoisted truck and all by a steam crane and placed in an open freight car ("goods wagon"). The binders are then covered over with huge tarpaulins to protect them from the weather while in transit. These same methods of shipping are in vogue in the Australian colonies. An English "goods" or freight train loaded with self-binders in this manner presents a novel appearance as may be imagined; and the despatch of the first complete train load of Massey-Harris wide open binders in July last was the occasion of wide comment. A second similar train load was sent out in August last.

Here in Canada, it is sometimes insinuated that Massey-Harris binders and mowers are sold cheaper in Europe than at home. This is not true. The British, Australian and foreign farmers after years of experience with all the different makes of machines are quite satisfied to pay a high price for Massey-Harris goods since they recognize that they get the best value in so doing.

The manufacture of artificial stone and concrete in various forms has been practiced almost since the art of building has been known, but some German makers have hit upon a plan of imitating nature which is worthy of some notice as being out of the common. This contains from two to three parts of clay, and, when well dried and screened, it is placed, with a certain proportion of ground lime, into an iron drum kept revolved, so that the materials are thoroughly mixed together. Subsequently the mixture is removed, placed in molds, which, after being screwed down tightly, are placed in a cylinder into which water and steam are admitted. The

water covers the molds, and the steam is forced into the cylinder at a pressure of 45 to 60 pounds the square inch. The steam forces the water between the crevices of the molds, the water slakes the lime, causing it to expand in volume, and as the molds resist the outward expansion the lime is forced into the sand and cements it into a hard stone. After the steam pressure has been kept for three days the molds are removed and allowed to cool for twelve hours before being opened, and then the stone is removed. Various colors can be obtained by the admixture of colored earths with the sand and lime in the cylinders.

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Stylish, Roomy,
Light, Comfortable
and Strong.

PIANO BODY,
PORTLAND BODY,
QUELPH BODY AND
ADJUSTABLE SEAT BODY.
CUTTERS TO SUIT ALL
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ASK FOR CIRCULAR DESCRIBING.
J. B. ARMSTRONG MFG. CO. Ltd., QUELPH, CANADA.

Kerr & Morgan,

--- MONTREAL, QUE.,

MANUFACTURERS OF

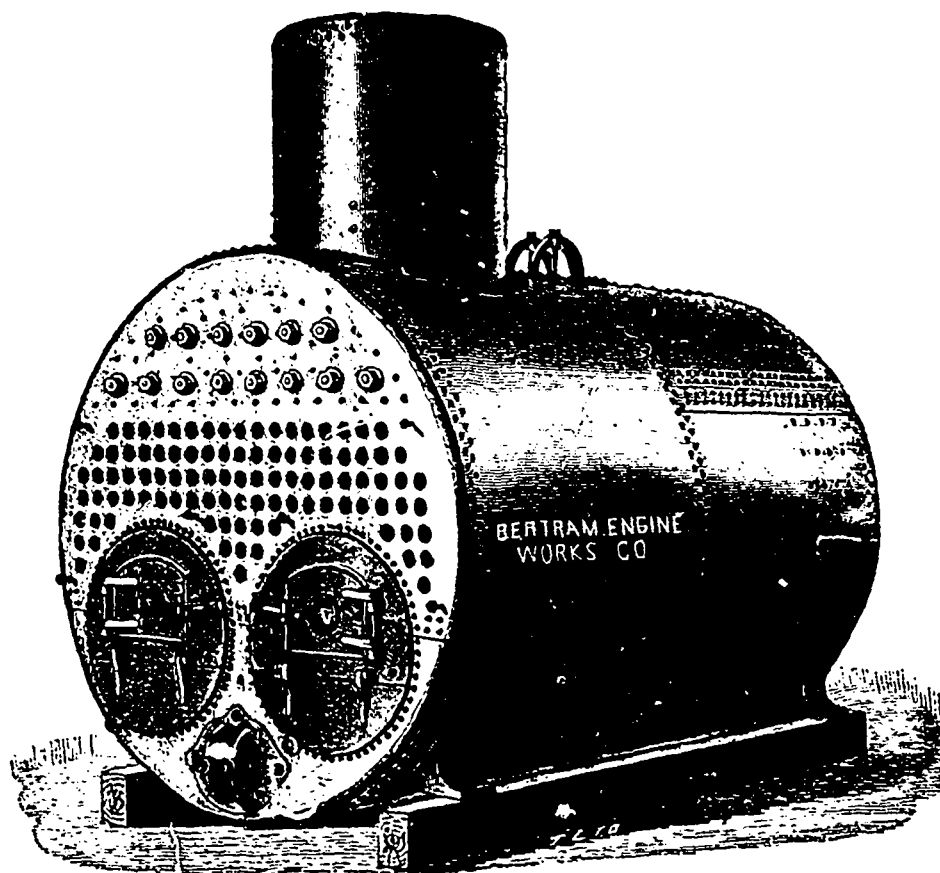
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Marine Engines and Boilers,

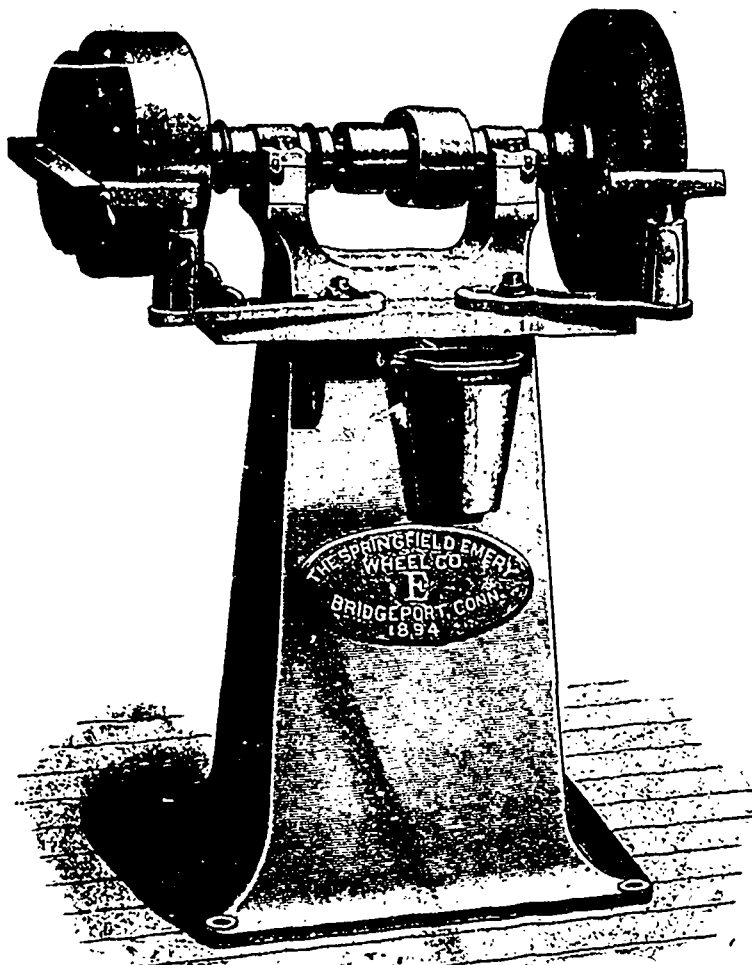
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Safety Appliances for the Use of Emery Wheels.

It is said no matter how much care is taken in manufacturing by the manufacturer of emery wheels, that during their transportation from the manufacturer to the user they are liable to meet with rough handling and thereby receive slight fractures, oftentimes so slight that it would not be detected until the high speed or centrifugal strain would cause them to separate. To overcome any danger which might arise from this source the Springfield Mfg. Co., of Bridgeport Conn., have brought out several good devices, two of which the accompanying cut illustrates.

The cut represents a Square Base Dry Grinder with a spindle arranged with safety collars on one end, and a new device in the form of a chuck to hold an emery rim or wheel on the other. Both the chuck and collars are so constructed that it is impossible for the wheels to expand or fly to pieces even though they may be broken. These devices may be fitted up either with one chuck or two chucks, with one set of safety collars or two sets of safety collars or, with one chuck and one set of safety collars on the spindle as represented in the illustration. They may also be fitted to a spindle which may be used on any machine now in operation. The manufacturers not only claim that these devices are absolutely safe, but that nearly double the work in the same length of time may be produced on account of the extra high speed at which wheels may be run equipped with these devices, therefore making the cost of the production much less than in the old and original way.

Further particulars and illustrations may be obtained by addressing the Springfield Mfg. Co., Bridgeport, Conn.

A Kingston, Kent county, N. B., correspondent says: Thomas McInerney the sixteen-year-old son of John McInerney, has completed a miniature steam engine of about two hundred pounds weight. Every part is complete and works admirably. The workmanship is both neat and substantial, presenting a very attractive appearance; and when we consider the extreme youth of the builder who received no instructions in the complications of the machine, but that picked up by observation of the machinery in the mills and tug boats in this vicinity, his success seems the more remarkable. In this Tommy has shown an application and perseverance bordering on genius.

The Canadian Pacific Railway Company has bound itself to construct and operate the Montreal & Ottawa Railway as far west as Alfred Village in 1895.

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Sheet Steel, ordinary & Dead Flat.
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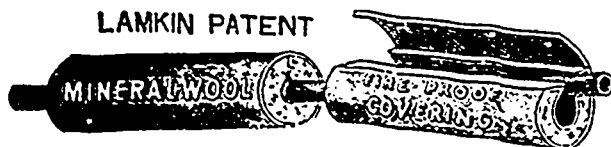
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 Tough, Durable, Guaranteed
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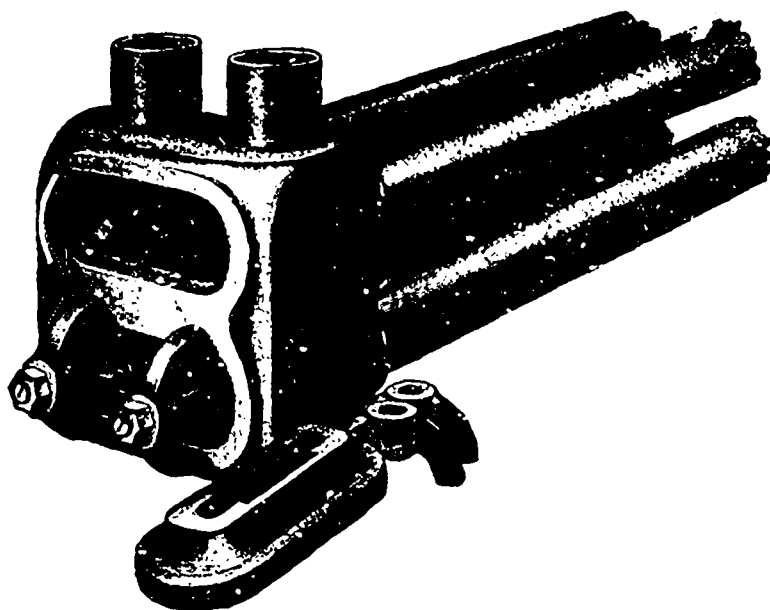
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 Iron, Steel, Gold,
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EXTENSIVE PLANT FOR
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MANUFACTURED BY
WM. & J. G. GREEY,
 2 Church St., TORONTO.



VIEW SHOWING THE IMPROVED ONE-PIECE FLEXIBLE HEADER.

Caldwell Water Tube Boiler.

The accompanying illustrations are of the Caldwell Standard Water Tube Boiler manufactured by John McDougall, at his Caledonian Iron Works, Montreal.

Each section is made up of four of the best quality lap-welded standard four-inch wrought iron tubes connected at their ends by a patent one-piece header. The sections are critically examined and tested to stand a hydrostatic pressure of 300 pounds to the square inch, for ordinary use.

The headers into which the tubes are expanded are composed of one piece, with caps as shown in the cut. They are set over each other and nipped together by means of short pieces of four inch, extra heavy annealed tubing expanded into bored holes of uniform diameter by special machinery no screw joints or bushings being used. There are no joints in direct contact with the fire, making, as a whole, a series of flexible members yielding to the inequalities of expansion among the tubes.

The headers are quadrangular in shape and are made from a mixture of special brands of extra tough iron.

The openings in front of the headers, through which access can be had to the tubes, are covered with plates which close on an inner lip, whereby a tight joint can be obtained, and no joint is needed under the holding nuts, thus reducing the number of joints in connection with header to one-fourth the number as compared with other water tube boilers.

The method of placing baffling bricks between each alternate pair of tubes for baffling the gases when on their way from the furnace to the chimney, gives peculiar advantages to the Caldwell boiler. The baffling and retarding of the gases are rendered controllable by this method, the bricks absorb heat while the fire is at its hottest, and again, it gives it out when a fresh fire has been put on and the temperature in the furnace has been lowered, thus not only promoting combustion, but also to a large extent, in equalizing the heat throughout, and thus, preventing to a considerable extent, the mischief caused to boilers by the usual expansion and contraction which always occurs under the conditions mentioned.

By the use of the baffle brick it is claimed that a more positive effect is given to the gases than when the tubes are set staggered. In the latter case the gases strike a tube and glide past to the next horizontal row. In the Caldwell boiler, the gas arriving between two tubes, meets with a more positive obstruction, and is compelled partially to retrace its course and wind around the tubes before it can escape to the next row, then to meet another row of bricks, etc.

Openings are provided between the bricks and the tubes (see cut), through which a sufficient quantity of the gases pass to blow and carry off the dust that is allowed to accumulate at such points in other boilers of this type, thus adding much to the efficiency of this boiler.

The inclination of the water tubes, over the furnace, insures a rapid circulation of the water in one direction, so that there are no conflicting currents in the boiler. The globules of steam pass quickly up the front water legs to the steam and water drum. The water, as it sweeps along the drum frees itself of steam, then it goes down the back connection tubes and back water legs, and then along the incline tubes, meeting on its passage a gradually increasing temperature till the furnace is again reached, where the steam formed on the way is directly carried up into the drum as before.

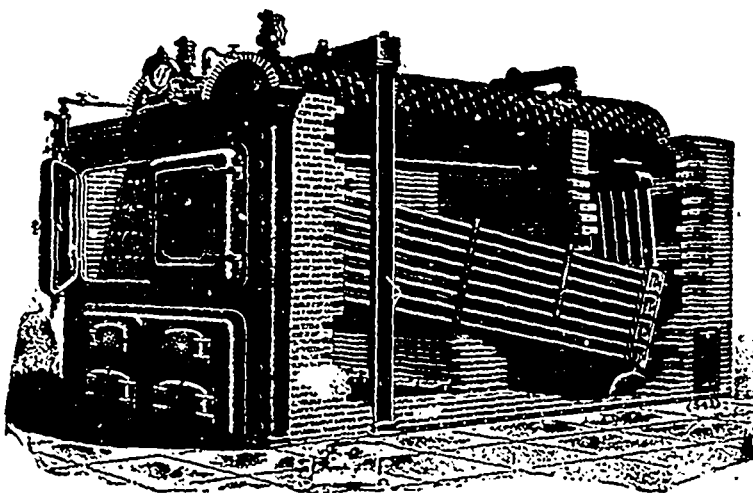
This rapid and unimpeded circulation tends to keep the inside surfaces clean and floats the scale making sediment along till it reaches the back water legs where it is carried down and settles into the mud drum, from where it can be blown off at intervals. By this means scaling of the boiler is reduced, durability increased, the original efficiency maintained and an almost equal temperature secured throughout all parts of the boiler, thus helping to prevent straining from unequal expansion and contraction.

Perfect circulation is obtained in this boiler by the header being quadrangular, and not rhomboidal, as in other boilers, this also admits of placing each header exactly over the other, and connecting each to each with two expanded nipples of 4-inch diameter, thus making the area of tubes to

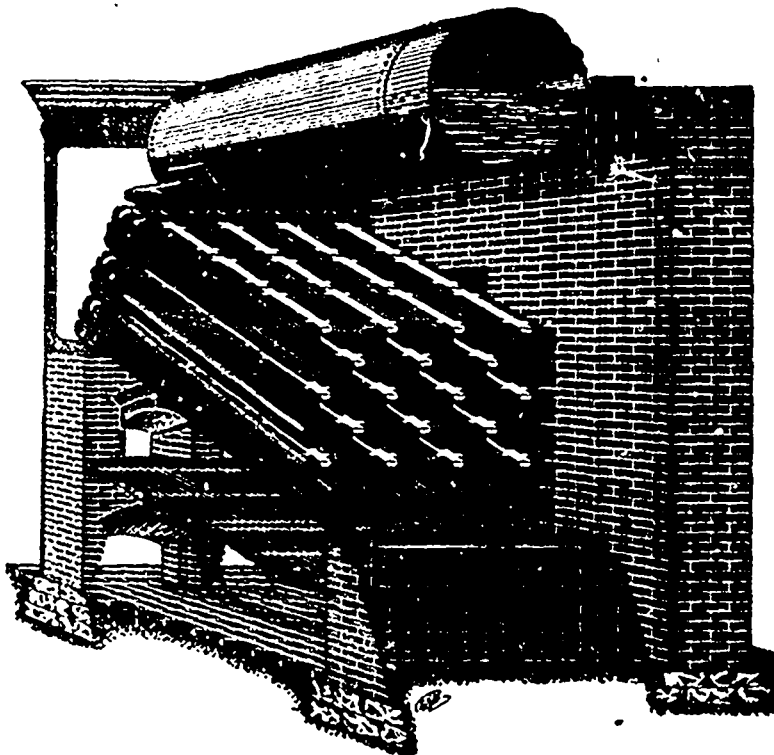
nipples, eight to one, and securing a straight water way for the water to rush along to the steam and water drum, as against a proportion of 12 and 16, and even 20 to 1 in some boilers, some of which have, besides, the disadvantage of a tortuous passage for the water: to circulate through on its way to the drums.

It is absolutely necessary to have a large disengaging surface to secure dry steam. Take for example, a 100 horse-power boiler of this type. It has a disengaging surface of 51 square feet, and the steam space on it is equal to 60 cubic feet.

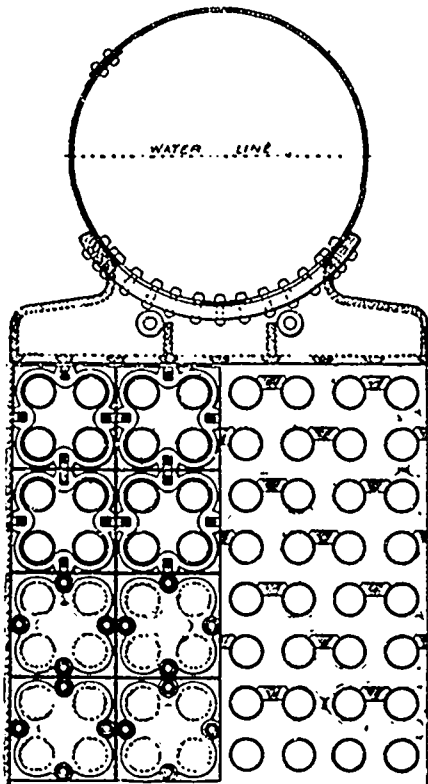
The water in the Caldwell boiler being divided up into small compartments within a series of 4-inch tubes, capable



FRONT VIEW.



REAR VIEW OF HEADERS AND BAFFLE BRICKS.



FRONT VIEW OF THE HEADERS AND BAFFLE BRICK.

The steam and water drum is entered through the usual manhole, and free access had also to every portion of the outside of the boiler through doors in the brick work placed there for that purpose. The boiler is supported independently of the brick work with iron

of sustaining an internal pressure of over 2,000 pounds per square inch, puts the matter of ruptures practically out of the question. The headers into which the tubes are expanded, stand by actual test, pressures, of from 2,000 to 3,000 pounds per square inch, without apparent injury.

By removing a single header cap of the Caldwell boiler, an indication of the state of every header and tube is had; this can be done in a few minutes. If actual investigation of cleaning of each and every part of a section is wanted, free access is had by the removal of the caps with an ordinary wrench. The back connections to the tubes are easy to get at. One or more tubes can be removed through the front openings. A whole section can be removed and four long nipples take its place temporarily when necessary, without disturbing the other headers or the brick work. The sections are interchangeable; a spare one can replace a defective one at short notice.

girders and columns, thus avoiding strains on the boiler and on the surrounding walls, and all the brick-work can be removed at any time without disturbing the boiler.

The Caldwell boiler is well adapted for transportation; the sections being light, can be easily carried separately from place to place, even through mountainous districts. The fronts are also sectional, being made of wrought iron, with ornamental cast-iron trimmings.

Further information regarding this boiler, also descriptive catalogue, prices, etc., may be obtained by addressing Mr. McDougall at corner of William and Seigneurs streets, Montreal.

A bill was introduced by Congressman Daniels at Washington last year authorizing the construction of a bridge from Buffalo across Grand Island to Canada. Congress declined to take action. The Legislature of 1893 appointed a commission, which is now organized into a company seeking incorporation as the Grand Island Bridge Company, with \$1,500,000 capital stock. The proposed bridge is to be built to accommodate railroad trains, vehicles, and foot passengers, will be 150 feet wide, and will be located by the Government. The bill will be reintroduced at the coming session of Congress, and the work of construction will proceed as soon as the assent of that body is secured.--New York Indicator.



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RESPIRATOR.

OVER 15,000 IN USE,
Preventing Disease and Prolonging Life.

The most complete article ever offered for
Protecting the Throat and
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Poisonous Gases, and all
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In places where persons are exposed and many
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TO LIGHTING STATIONS.

OUR NEW
ALTERNATING CURRENT INDICATORS

Are now ready. Before purchasing elsewhere send for our New Catalogue, which contains the prices and description of the above instruments, and also a list and prices of other new instruments of our manufacture.

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.. AGENTS ..

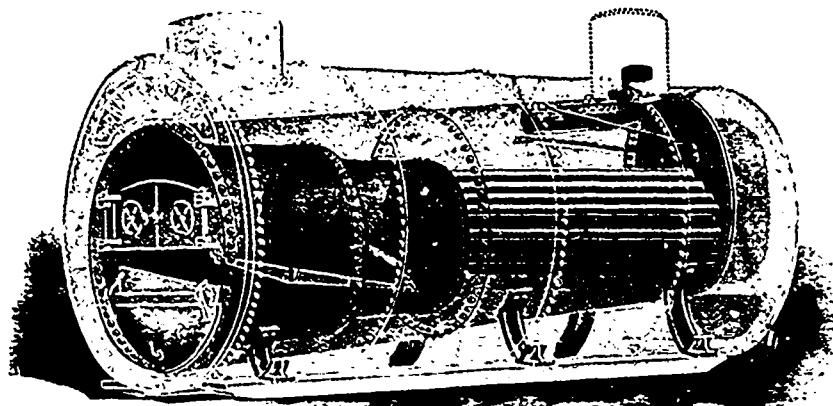
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- NEW YORK CITY, Geo. L. Colgate, 136 Liberty Street.
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- TORONTO, Ont., Toronto Electrical Works.

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SIMPLE, TANDEM AND CROSS COMPOUND.



MONARCH ECONOMIC BOILERS

Require no Brickwork and give the **HIGHEST POSSIBLE**
... **ECONOMY** ...

Robb Engineering Co., Ltd., Amherst, N. S.

The Canada Machinery Agency, 345 St. James Street, Montreal, Agents.
Wm. McKay, Seaforth, Ont., Travelling Agent.

CAPTAINS OF INDUSTRY.

This department of the Canadian Manufacturer is considered of special value to our readers because of the information contained therein. With a view to sustaining its interesting features, friends are invited to contribute any items of information coming to their knowledge regarding any Canadian manufacturing enterprises. Be concise and explicit. State facts clearly, giving correct name and address of person or firm alluded to, and nature of business.

Mr. J.A. Johnson, St. Marys, Ont., will erect a planing mill in that town.

The Rathbun Co., Deseronto, Ont., are erecting a match factory.

Brigden, Ont., is considering the question of constructing a system of waterworks.

The Montreal Transportation Co. will construct a new dry dock adjoining their shipyard at Kingston, Ont.

Messrs. Robert Gaw & Co.'s sash factory at Kingston, Ont., was destroyed by fire a few days ago; loss about \$7,000.

Messrs. C. & J. Prescott and Geo. D. Prescott, will erect a sawmill on the Benjamin River, Gloucester County, N.B.

The Pratte Piano Co., Montreal, has been incorporated with a capital stock of \$200,000, for the manufacture of pianos, organs, etc.

The Victoria and Black Rock Ferry Co., with a capital stock of \$12,800, are applying for incorporation for the purpose of operating a ferry across Niagara river at Black Rock.

A company is being formed in Perth, with a capital of \$50,000, for the manufacture of car and locomotive wheels. Messrs. J. M. Balderson, W. H. Churchill, and W. C. Wilson are among the promoters.

The promoters of the Chatham, Wallaceburg and Petrolia Railway propose to make their headquarters at Wallaceburg, Ont., which will, during the construction of the road, make that town a distributing point of upwards of \$300,000.

The New York, New England & Canada Co. are applying for incorporation to be empowered to construct a railway from a point on the Intercolonial Ry. near or from Halifax, through the counties of Halifax, Lunenburg, Queen's, Shelburne and Yarmouth to Bunker Island in Yarmouth Harbor.

The sawmill of R. B. Jeffrey, at Victoria Road, Ont., was destroyed by fire December 6th; loss about \$1,000.

The McLaughlin Carriage Co., Oshawa, Ont., are having a new boiler and engine added to their extensive plant.

The foundry and machine shops of Gagnon Bros., City of Quebec, were destroyed by fire December 12th; loss about \$10,000.

The Canadian Trading and Shipping Co., with a capital stock of \$250,000, has been incorporated with headquarters at Montreal.

The James MacLaren Co., Ottawa, are applying for incorporation for the purpose of carrying on the business of miners, lumberers, etc.

The Jenekes Machine Co., Sherbrooke, Que., have been granted a site by the city council upon which they will erect their new factory.

Messrs. J. H. Milton & Son, Moncton, N.B., have removed their sawmill to the new site at Foley Hill, on the line of the Albert Railway.

The presses and machinery of the Petrolia, Ont., Advertiser are to be driven by an electric motor which they expect to have in operation about the middle of January.

The Canadian Milling Co., with a capital stock of \$75,000, has been incorporated for the purpose of engaging in the flour, milling and oatmeal business, etc.

The South Shore Ry. Co., N.S., are applying for incorporation for the purpose of constructing and operating a railway from Yarmouth, N.S., to a point in or near the City of Halifax.

The Dominion Rubber Reclaiming Co., with a capital stock of \$100,000, headquarters at Montreal, has been incorporated for the purpose of manufacturing reclaimed rubber, etc.

The Nova Scotia Ry. Company are applying for incorporation with power to construct a railway from Port Maitland harbor to a point on the Dominion Atlantic Railway at or near Meteghan station.

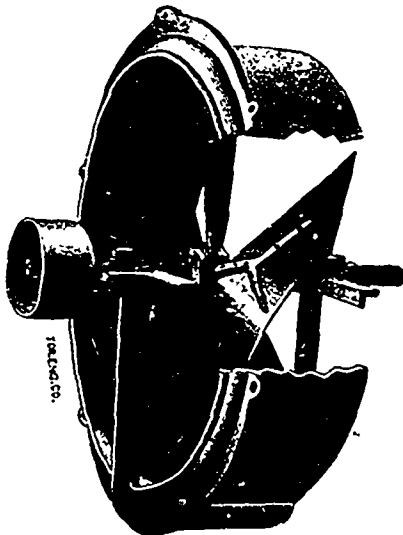
The Carey Wire Sewing Process Company of the Dominion of Canada, will apply for supplementary letters patent changing the name of the company to that of The Carey Wire Sewing Machine Company of Montreal.

The syndicate that wanted to utilize the water power at Bangor for a pulp mill have located at Sault Ste. Marie on the Canadian side. They have bought a canal of the government and received a grant of 3,000 acres of land from the Ontario government and will build the largest pulp mill in the world at a cost of \$1,000,000.—The Paper Mill.

McEachren's Improved Fan

PATENTED 1893

For Ventilating, Heating, Drying, Etc.



Specially adapted to
HEAVY WORK

Will handle more air
at a *GIVEN PRESSURE* with a *GIVEN POWER* than any other Fan in the market.

For particulars address

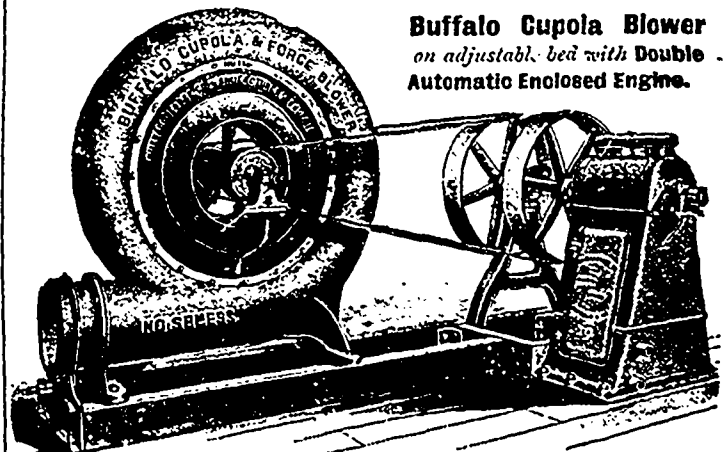
J. D. McEACHREN - - GALT, Ont.

Rockwood, March 16th, 1893.

Mr. J. D. McEachren, Galt.

Dear Sir,—In reference to the Drying and Ventilating Fans that you put in last fall they are working well, keeping the rooms dry and comfortable. The wool dries with cold water coil; is drying 500 to 600 lbs. of wool per day WITHOUT HYDRO EXTRACTOR, on 6 x 12 feet of netting. If the room was larger we are sure that the capacity would be much increased. The Fan in end of dye house keeps the steam well drawn off, and the alterations on cloth drier have enabled us to dry more than double the goods than we could formerly. We would make special note of the small amount of power required.

Yours truly. HARRIS & Co.



Buffalo Cupola Blower
on adjustable bed with Double
Automatic Enclosed Engine.

**Buffalo Dry-Kilns, Shaving Fans, Forges,
Blowers, Exhausters, Black-
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Are described in Sectional Catalogues FREE on application.

**Their Efficiency, Smooth Running, and
Durability are Unsurpassed**

BUFFALO FORGE CO., Buffalo, N.Y., U.S.A.

K. W. PETRIE, Toronto Representative, Toronto, Ont.
CANADIAN MACHINERY & SUPPLY CO., Brantford,

Brantford representatives.

Chicago Office:—22 & 24 West Randolph St.

Tenders are about being called for the construction of a new railway bridge crossing the Burlington Canal, near Hamilton, the expectation being that the bridge will be ready for traffic in a few months.

The C. P. R. and the Ottawa Electric Railway Co. are said to have decided to build an electric railway from Ottawa to Aylmer by way of Hintonburg, Skead's Mills and Britannia, crossing the Ottawa river at Deschene Rapids on a bridge to cost \$150,000. —Almonte Gazette.

The Petrolia, Ont., Electric Light, Heat and Power Co. are pushing the erection of their power house, which they expect to have completed at an early date. They are placing in position a 125-horse power Wheelock engine and a 125-steel boiler manufactured for them by the Goldie & McCullough Co., of Galt, Ont.

The Citizens' Light & Power Company, who furnish the lighting for the harbor of Montreal, the city of St. Henri and the town of Cote St. Antoine since about three years, are now using two stations on the Lachine canal, run by water power, one on Mill street and the other at Core St. Paul, but as their business has been augmented very considerably, they have been obliged to erect a large new station in St. Henri in which they are putting in a 1,200 horse power steam plant, which they will use to run all their lights and also furnish power for the electric road of the Standard Light & Power company to Lachine, which that company are going to have in operation early in the spring of 1895, as they have an exclusive privilege to operate the electric road in question. —Trade Review.

A good description of the water-power works at Keewatin appears in The Manitoba Free Press. The dam is situated at the outlet of the Lake of the Woods, and is one of the most extensive power projects in the Dominion. It consists of 22 piers, all solid granite masonry. Between the piers are twenty openings, twelve being fifteen feet wide and fitted with appliances for regulating the flow of water in the river. There are four openings 25 feet wide at each side of the river. These serve as entrance gates to the flumes which carry power along the sides of the river. In addition to these flumes which can supply power direct to factories located along them, the works include two canals across Tunnel Island. These will be power flumes, having a fall of 24 feet—the same as that of the flumes connected with the dam. The extension of the dam from the piers requires about 50,000 yards of rubble. About 40,000 horse-power of water will be available on the completion of the dam, and an equal quantity will be brought into use when required. The operating company has also made arrangements for the establishment of a gigantic power house for the transmission of power to a distance by electricity.

Chew Bros., Midland, Ont., will enlarge their saw mills.

Negotiations are now on between the Richelieu & Ontario Navigation Company, and some western ship builders to build a couple of boats to ply between Toronto and Prescott.

The Ontario Wheel Co., Gananoque, Ont., of which Mr. Geo. Taylor, M. P., is manager, find themselves so filled with orders for their goods that they are running overtime. They have large factories at Kingston, Brockville and Gananoque, Ont.

Messrs. Parke, Davis & Co., of Detroit, Michigan, whose Canadian branch is at Walkerville, Ont., have engaged in the manufacture of anti-toxine for the cure of diphtheria. The operation of manufacture is necessarily slow, requiring several months, and it will probably be March or April before any quantity of the article as prepared by this concern can be supplied to physicians.

The work of constructing the blast furnaces of the Hamilton Iron & Steel Co., at Hamilton, Ont., has been somewhat retarded and the works will not be ready for operation on the first of January next, as at first expected, but the assurance is made that they will be completed and in operation by or before July first next. About \$80,000 has already been expended upon the plant. At the recent annual meeting of the shareholders of the company, held in Hamilton, Messrs. Robert Jaffray, of Toronto, and Killen, Foster, Milne and Curtis, of Hamilton, were elected directors, and these immediately elected the following officers:—Wm. Foster, jr., president; H.M. Curtis, secretary; and J.J. Morehouse, treasurer and general manager.

A WORLD BEATER

SHULTZ & SWARTZ,
- GERMANY. -

**FRICITION
BELT
DRESSING**

Guaranteed to increase driving power 25 per cent. Used by all the leading Manufacturers and Electric plants in Europe. One application will convince you that this is the greatest belt dressing on earth. Made up in bars from one to five pounds, at 25 cents per lb. Write for samples to

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Basement Window Guards.

FACTORY AND MILL WINDOW GUARDS,
SCHOOL AND CHURCH GUARDS.
STORE FRONT GUARDS.

OFFICE :: COUNTER :: RAILINGS.

Inside Fine Woven Wire Blinds, Lettered or Plain.

WRITE FOR CATALOGUE AND PRICE LIST.

Manufactured by . . .

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HAMILTON, - - - ONTARIO.

ECO MAGNETO

Watchman's Electric Clock

... WITHOUT BATTERIES ...



Write for Descriptive Circular to

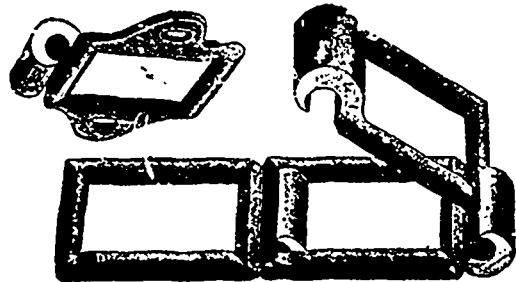
..Eco Magneto Clock Co..

ROOM 71 : : 620 ATLANTIC AVE.
BOSTON, MASS.

MONTREAL ELECTRIC CO., Agents for Province of Quebec
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Agents for the Maritime Provinces.

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...Watchman's Clock...

IN THE MARKET.

Send for full information and prices to

The E. Howard Watch and Clock Co.,

MANUFACTURERS : 383 Washington St., Boston, Mass.
FINE WATCHES & CLOCKS : 41 Maiden Lane, New York, N.Y.
: 34 Washington St., Chicago, Ill.

SAMUEL LITTLE, Pres. RUFUS B. CARR, Gen. Mgr.
ARTHUR M. LITTLE, Treas.

The Pembroke Milling Co., of Pembroke, Ont., have been incorporated with a capital stock of \$75,000 to engage in the flour milling business.

The Canadian Fire Extinguisher Co. of Montreal, has been incorporated with a capital stock of \$50,000 to manufacture chemical fire extinguishers, etc.

La Campagnie de Carrosserie de Montreal (The Montreal Carriage Company) with a capital stock of \$100,000, has been incorporated for the manufacture of carriages, wooden ware, etc.

The Valley City Seating Co., of Dundas, Ont., has been incorporated with a capital stock of \$50,000 to manufacture furniture and general wood work, and iron and brass work and other hardware.

The Albert Mfg. Co., Hillsborough, N.B., have recently added to the list of their products the manufacture of the well-known Hammer brand of calcined plaster and patent rock wall plaster, to which they make allusion in their card in another page.

At the next session of Parliament an application will be made for an act to incorporate a company to construct a low level bridge for railway and highway purposes, over the Ottawa River from a point in Nepian Township, Carleton County, near Dechenes Rapids.

Messrs. J. C. Wilson & Co., Glenora, Ont., whose business card appears in another page, call attention to the Little Giant turbine manufactured by them. This machine is built in 17 standard sizes and 27 special sizes, making a range of 44 different wheels in vertical or horizontal cases. Those who may be interested in developing or improving water power should apply to this concern for further information.

The carpet factory of D. McCallum at Strathroy, Ont., was destroyed by fire December 16.

A ferry will be established by the Rathbun Co., of Deseronto, between Gananoque and Clayton, Ont.

Elora is to have another industry. Mr. Peel will shortly transfer his shoe factory from Drayton to Elora.

Mr. W. S. Bowness, of the firm of Elliott and Bowness, jewellers Moncton, N.B., has invented a rather ingenious contrivance in the shape of a Waltham watch escapement.

Messrs. Morgan and Caldwell, of Belleville, Ont., have built an addition to their mill, putting in a set of six rollers for grain cracking with a capacity of eighty bushels per hour.

The Montreal and British Columbia Prospecting and Promoting Co., with a capital stock of \$20,000 has just been incorporated, head offices being at Vancouver, B.C. The operations will chiefly be in connection with the development of mines. Messrs. J. M. Browning, T. C. Innes and S. O. Richards are the first directors.

The works of the Ontario Malleable Iron Co., at Oshawa, Ont., were totally destroyed by fire on December 11. These works were erected in 1872 and have from time to time been added to, until at the time of their destruction they were probably the largest of the kind in Canada. The front of the building was 330 ft. long, the north wing extending back 350 ft., the centre wing, in which was the engine house, extending 300 ft. and the south wing 400 ft., each wing being 50 ft. wide. The buildings and plant were valued at \$125,000. Some \$20,000 worth of patterns were destroyed. Only last year a new engine and extra moulding room, and an electric light plant for illuminating the works and other improvements, were made to this concern.

Wm. J. Matheson & Co. Limited

423-425 ST. PAUL ST., MONTREAL

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AND....

Wire Shapes OF All Kinds.

We have put in a complete plant of **AUTOMATIC MACHINERY** for making above articles. . . .

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409 Board of Trade Building.

Toronto Office.
33 Melinda Street.

The Dartmouth Electric Co., Dartmouth, N.S., are enlarging their plant and have ordered a 125 horse power engine and boiler from the Robb Engineering Co. The engine will be a Robb-Armstrong Tandem Compound and the boiler a Monarch Economic with Adamson flanged furnace.

The Stanstead Electric Co., Stanstead, Que., who have been running their station by water power, have decided to put in an auxiliary steam plant, and have placed their order with the Robb Engineering Co. for a 100 horse power Robb-Armstrong engine and Monarch Economic boiler.

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from October 1 to October 11, 1894, inclusive.

Information regarding any of these patents may be had on application as follows:—

Fetherstonhaugh & Co.,	Bank of Commerce Building,	Toronto.
Ridout & Maybee,	103 Bay street,	Toronto.
A. Harvey,	Central Chambers,	Ottawa.
J. A. Grenier,	Imperial Building,	Montreal.

Copies of American patents corresponding to Canadian patents can be procured from either of these attorneys for the sum of twenty-five cents each.

47,115 Bottle stopper, C. N. Brisco, and J. F. Muchmore, Chicago Ill.
 47,116 Bottle stopper, C. N. Brisco and J. F. Muchmore, Chicago, Ill.
 47,117 Storage battery, Charles Riordan, Toronto, Ont.

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The Strongest and Purest Form of SODA ASH in the Market, and the Most Economical Form of SODA for the Manufacture of



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English H & T Steel Card Clothing.

Williams' Heddles, Shuttles, Reeds, Heddle-frames, Loom Repairs.

DODGE WOOD SPLIT PULLEYS

Best Oak Tanned Belting and Lace Leather.

Canada Chemical Mnfg. Co.

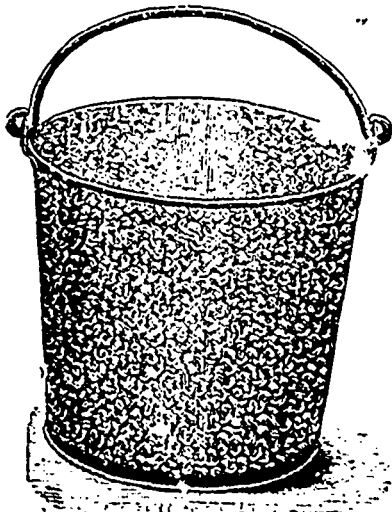
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—IMPROVED PATTERN.—



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FOR SALE BY ALL WHOLESALE HARDWARE AND TINWARE HOUSES.

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 47,119 Automatic fire extinguisher and alarm, Edward Livingston and H. M. Isaacson, New Orleans, La.
 47,120 Ore roasting kiln, The Davis Colby Ore Roaster Co., Middleborough, Ky.
 47,121 Heater, D. C. Brown, Carthage, Mo., and John Dickieson, Summerside, P.E.I.
 47,122 Engine, The Woolf Valve Gear Co., Minneapolis, Minn.
 47,123 Dust collector, August Heine, Silver Creek, N.Y.
 47,124 Pipe mould, W. J. Anthistle, London, Ont.
 47,125 Folding basket, E. M. Hudgin, Cincinnati, O.
 47,126 Pneumatic duster, W. E. Nation, Kakomo, Ind.
 47,127 Safety appliance for street cars, Edouard Julien and Trefle Berthiaume, Montreal, Que.
 47,128 Air brake for cars, N. B. K. Hoffman, New York, N. Y.
 47,129 Artificial fuel, J. D. Oigny, Montreal, D. O. Frye, Lachine Locks, Que., and L.G. Harris, Toronto, Ont.
 47,130 Folding box, The Folding Box Mfg. Co., London, Eng.
 47,131 Stopmotion for looms, James Jordan, St. Henry, Que.
 47,132 Supporting insulator for electric wires.
 47,133 Crate, F. T. Howell, Birmingham, Ala.
 47,134 Adjustable support for lamps, O. C. White, Worcester, Mass.
 47,135 Reclining chair, etc., Amandes Hackman, Peoria, Ill.
 47,136 Street car heater, M. K. Bowen, Chicago, Ill.
 47,137 Centrifugal blower, W. H. Harrison, Newark, N.J.
 47,138 Centrifugal separator, J. E. Folk, Brooklyn, N.Y.
 47,139 Pleated goods, and clasp therefor, F. S. Pinkham, Everett, Mass.
 47,140 Combined military garment and belt, Edmund Rice, Chicago, Ill.
 47,141 Blasting powder, B. C. Pellingell, Victoria, B.C.
 47,142 Method of reciprocating parts of mechanism, Z. G. Sholes, Chicago, Ill.
 47,143 Soap, Jacob Mellinger, Baltimore, Md.
 47,144 Car replacer, The Alexander Car Replacer Mfg. Co., Scranton, Pa.
 47,145 Precipitating precious metals, J.S. MacArthur, Pollokshields, County Renfrew, Scotland.
 47,146 Can making machine, Axel Johnson and H. C. Black, Oakland, Cal.
 47,147 Crushing machine, Robert McCully, Philadelphia, Pa.
 47,148 Electrical signalling system, A.S. McCaskey, Chicago, Ill.
 47,149 Tin can William Haaker, New York, N.Y.
 47,150 Crushing or grinding machine, Cornelius Kimplen, Chicago, Ill.
 47,151 Screen, Max Levy, Philadelphia, Pa.
 47,152 Trace fastener, F.D. Stalford, Des Moines, Ia.
 47,153 Electric perforating pen, A.D. Lewis, Canton, Mo.
 47,154 Brake-beam, T. H. Simpson, Detroit, Mich.
 47,155 Plough point, C.H. Heimlich and F.G. Heimlich, Venice, O.
 47,156 Stamp for printing embroidery patterns, J. E. Garrett, New Glasgow, N.S.
 47,157 Match box, The E. B. Eddy Co., Hull, Que.
 47,158 Child's seat for bicycle, F.A. Coulson, Detroit, Mich.
 47,159 Injector, W.H. Sterling, St. John, N.B.
 47,160 Pneumatic tire, T.C. Moore, Easthampton, Mass.
 47,161 Windmill, Arey Van Winegar den, Antony, Kan.
 47,162 Steam engine, B.F. Sparr, Brooklyn, N. Y.
 47,163 Steam and hot water radiators, J.D. Young, Duluth, Minn.
 47,164 Invalid's chair, Celia Belanger, Montreal, Que.
 47,165 Bobsleigh, E.L. Eastman, Wapeton, N. Da.
 47,166 Baling press, The Collins Plough Co., Quincy, Ill.
 47,167 Lock for railway switch gear, The Canada Switch Mfg. Co., Montreal, Que.
 47,168 Pumping engine, F.M. Wheeler, Montclair, N.J.
 47,169 Apparatus for transporting loads, J.P. Roe, London, Eng.
 47,170 Horse-shoe caulk sharpener, W. J. Temple, Hampden, Me.
 47,171 Sectional steam boiler, Amasa Worthington, Brooklyn, N. Y.
 47,172 Elliptic spring, W.H. Hansell, Philadelphia, Pa.
 47,173 Fence post, U. G. Thompson and Charles Wain, Onocida Mills, O.
 47,174 Door latches and locks, Thomas Mowbray, New Westminster, B.C.

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- 47,176 Hinged receptacle cover, Edmund B. Nagle, et al., Ottawa, Ont.
- 47,177 Method of utilizing the exhaust from engines, J. M. Saland, Port St. Pere, France.
- 47,178 Bicycle seat, George Harden and Thomas A. Dewar, Detroit, Mich.
- 47,179 Axle, James Miller and F.H. Boucher, Orlando, Fla.
- 47,180 Process of and apparatus for distilling glycerine, Joseph Van Ruyambeke and W. F. Jobbins, Chicago, Ill.
- 47,181 Elevator, E.M. Fraser and Wm. Georgeson, Winnipeg, Man.
- 47,182 Current director, The Consolidated Car Heating Co., Albany, N.Y.

- 47,183 Guard for street cars, Joseph B. Reed, Toronto, Ont.
- 47,184 Lasting machine. The Goodyear Shoe Machinery Co., Portland, Me.
- 47,185 Rotary pressure blower or force pump, Jos. S. Godfrey and Samuel Row, Lansing, Mich.
- 47,186 Workbox, S.F.B. O'Leary, Waverly, Kan.
- 47,187 Bottle, W. H. Rand and W.B. Rand, Boston, Mass.
- 47,188 Combined matchbox and ash receiver, Theodore Schafer Maroa, Ill.
- 47,189 Umbrella support, Robert Church, Montreal, Que.
- 47,190 Process of kindling fires, John D. Le Bel, London, Ont.
- 47,191 Umbrella cover and fastening device therefor, A. B. Hunt Brooklyn, N.Y.

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NO COAL STRIKES TO CONTEND WITH.**

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Single and Double Yarns, Cop Yarn, Single and Double Hosiery Yarn: in all Colors, including genuine "Fast Black."

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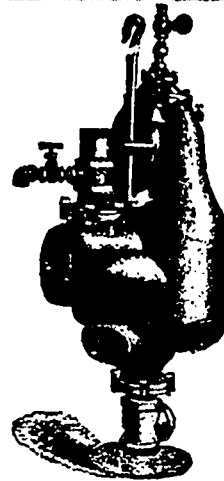
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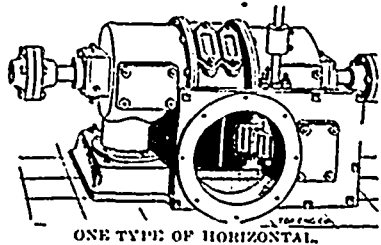
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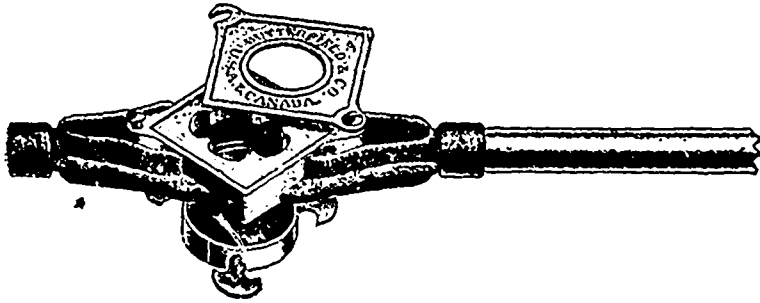


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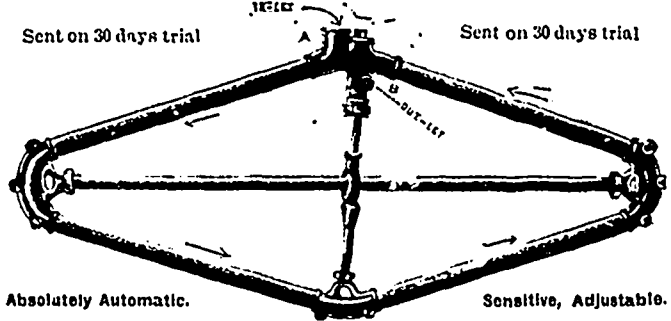
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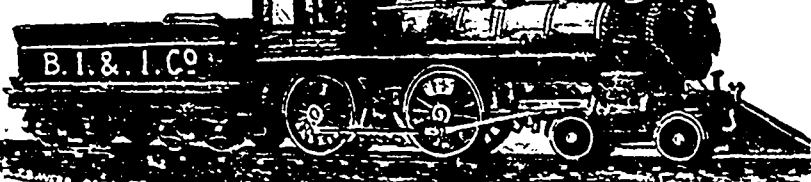
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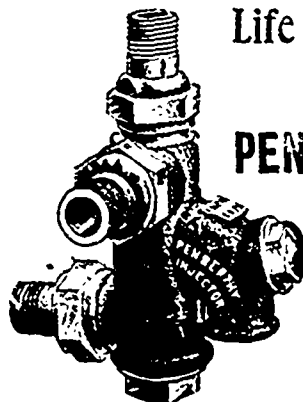
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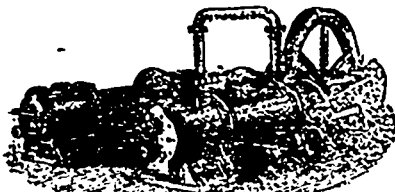
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1 1/2	1 1/2	5.94	"	3 1/4	3 1/8	26.60	"
1 3/4	1 1/2	7.46	"	3 1/2	3 1/8	30.94	"
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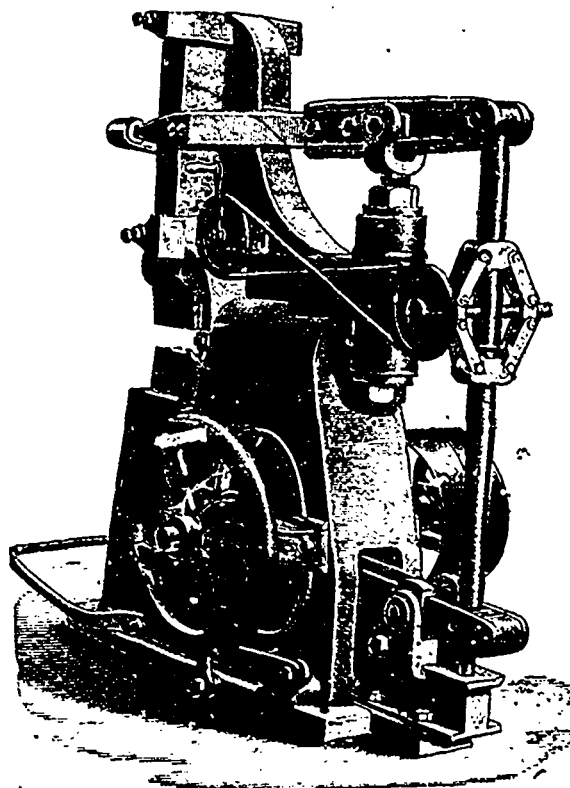
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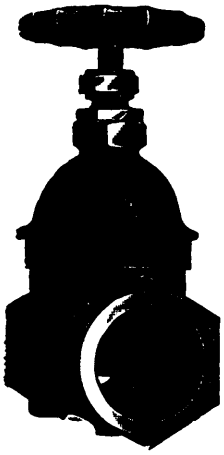
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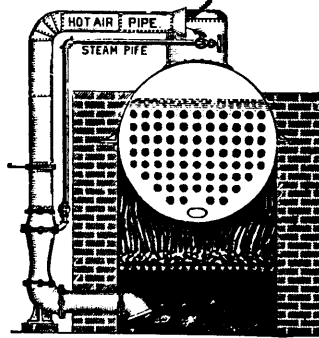
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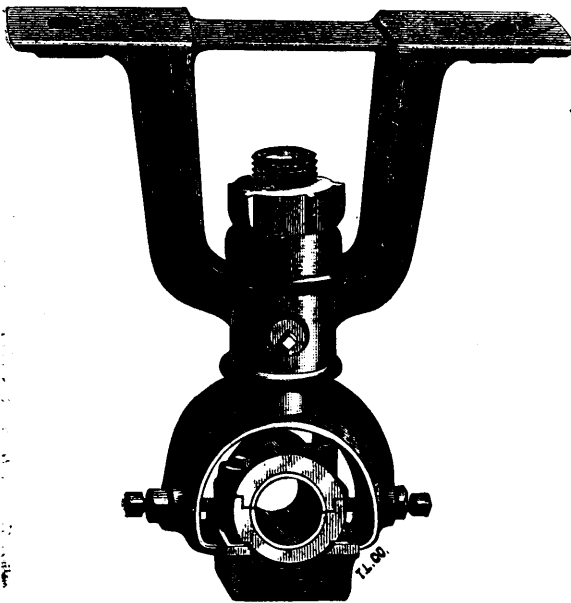
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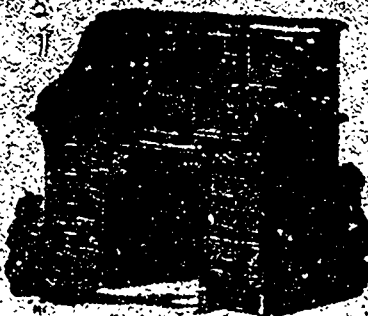
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