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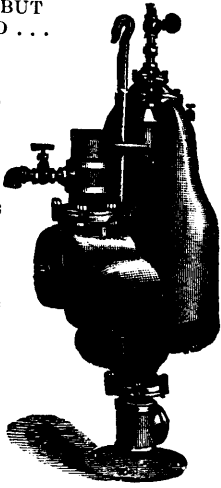
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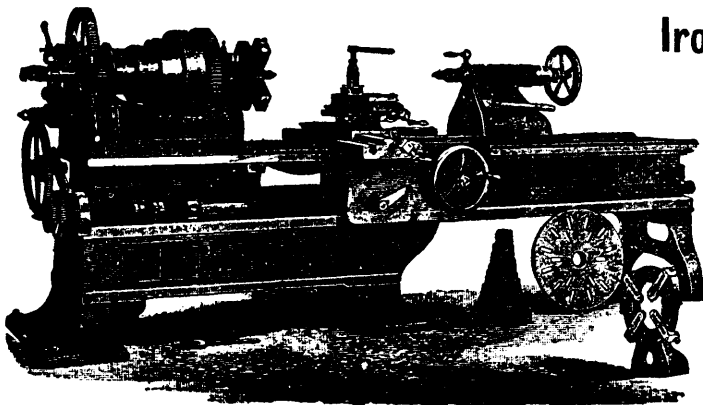
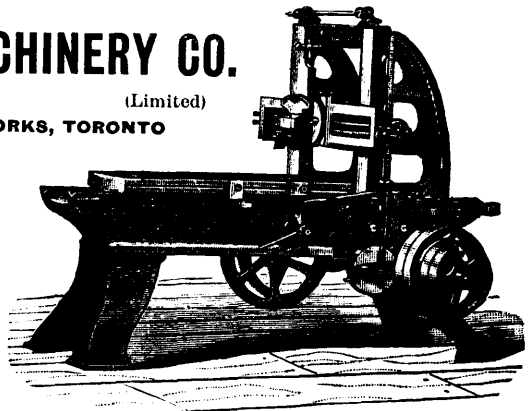
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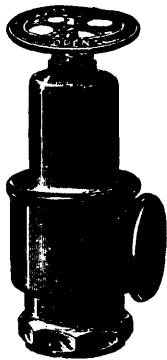
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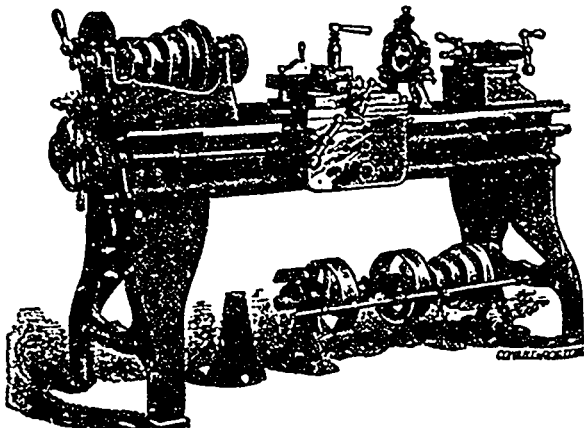
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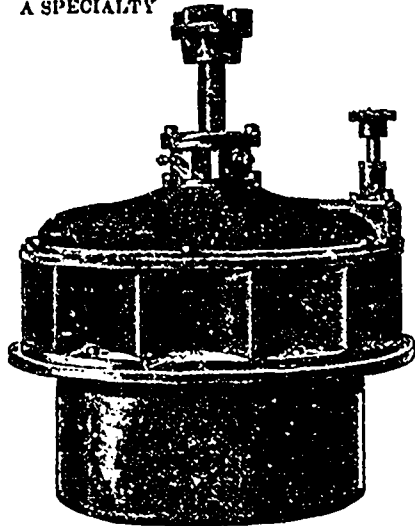
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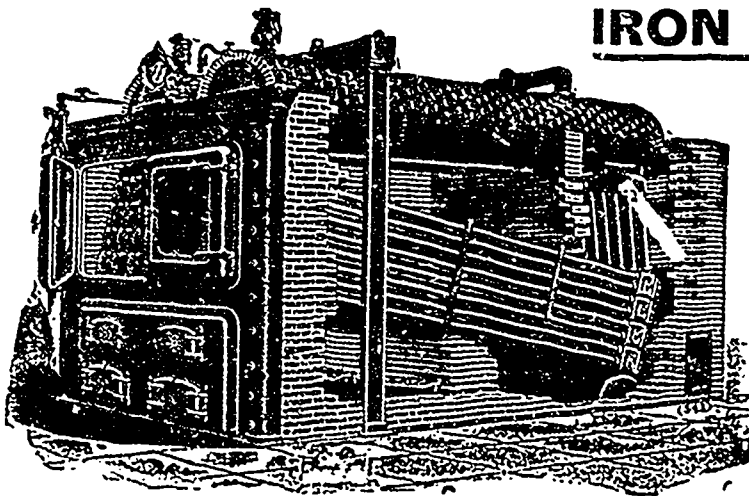
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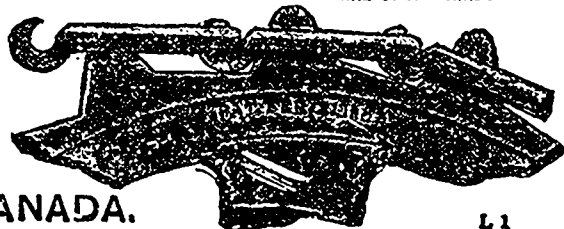
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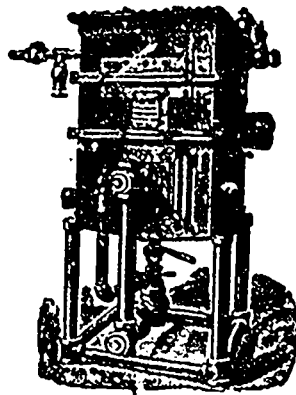
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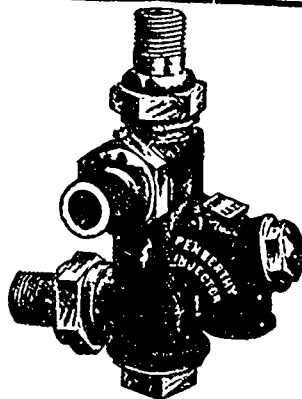


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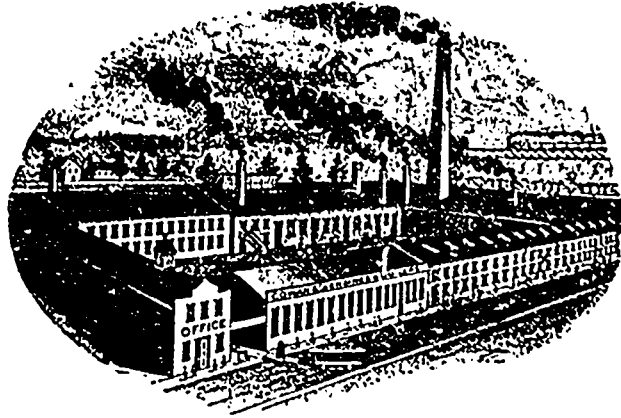
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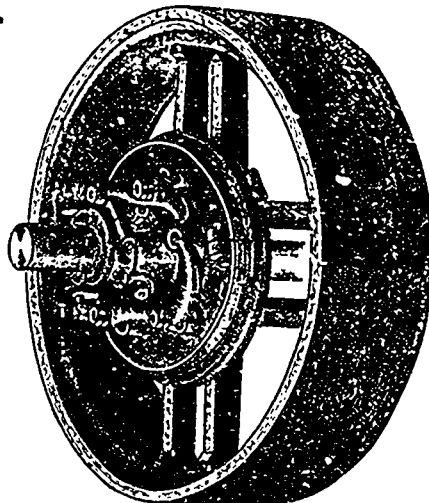
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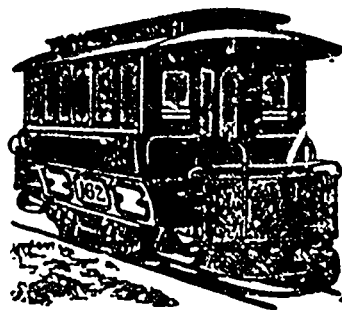
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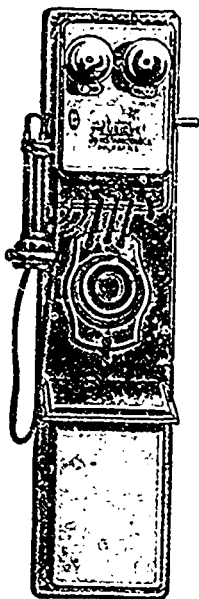
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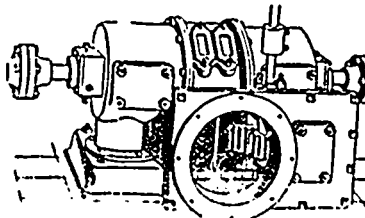
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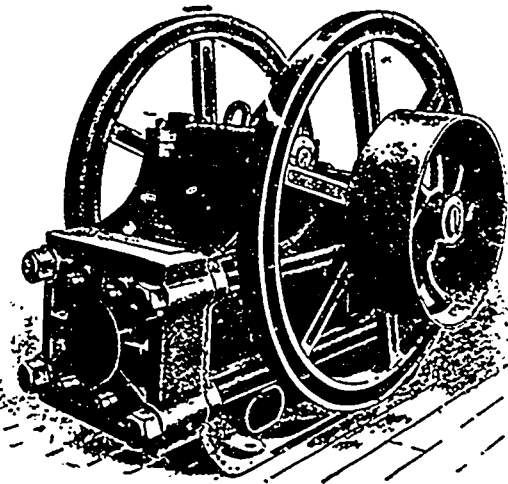
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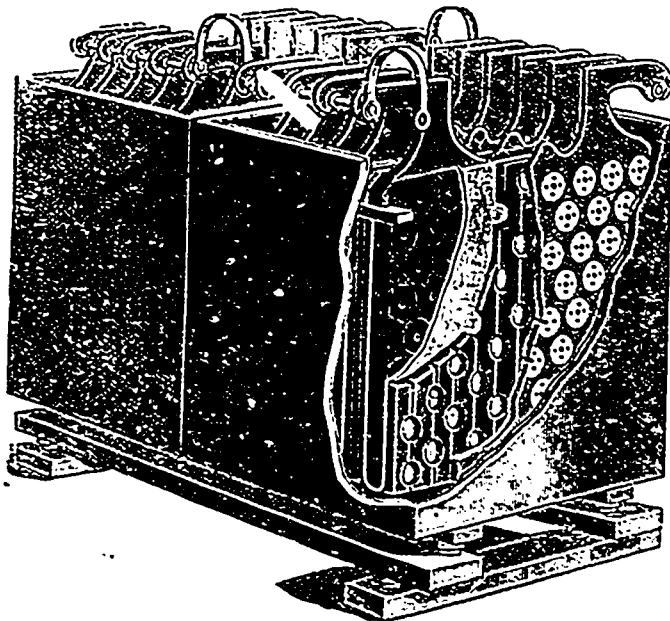
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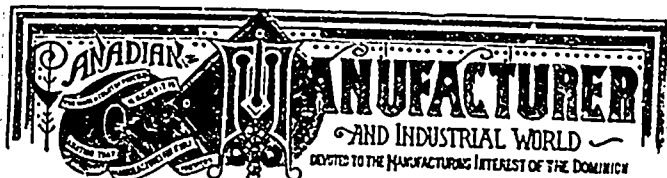
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SIR CHARLES TUPPER.

The High Commissioner to England is now the most representative Canadian protectionist. As such the manufacturers of the Dominion would like nothing better than to see him installed in the Premiership. He is the last active, powerful survivor of the men who made the National Policy a fact; who trained this country in the truths of protection; who formed the legislation which has been so fruitful of good. He was the trusted colleague, the great assistant of Sir John Macdonald, the fighting, aggressive force in the combination of men who swept the country in 1878. Since then his record has been one of consistent, continuous exertion in the best

interests of Canada. He was Minister of Railways and Canals long enough to start the Canadian Pacific Railway on its path of triumph, and to make its success almost certain. To him, perhaps, more than any other single man, this country owes the creation of that great link of national and Imperial union, that vital factor in the development of Canadian trade and commerce. To him, as Minister of Finance in 1887-8, we owe new developments in the protective tariff, and a determined honest effort to build up our iron and steel industries. To him, as High Commissioner, we owe much of the recognition which has in recent years come to Canada, and much of the position which this country has assumed in England as one of the pivotal States of the Empire, and a land of acknowledged resources and vast possibilities. His constant efforts at spreading broadcast throughout Great Britain information concerning the Dominion; the high personal standing which he soon attained and which added such force and value to his innumerable speeches about Canada and Canadian interests; his vital services in connection with the Imperial Institute, the Colonial and Indian Exhibition, and every other function or local concern which might help to make the Dominion better known; his labors—unsuccessful in the end, but none the less strenuous and able—on behalf of Canadian cattle; his work for a commercial union of the Empire, and a British preferential tariff in favor of the colonies; have combined to form a record of services which the Canadian people could only fittingly reward by the highest gift in their power. To him, also, the industries of this country owe much for the brave and vigorous effort which he made in 1891 to prevent the success of the Opposition and its wild policy of commercial union, or unrestricted reciprocity.

Sir Charles Tupper is, therefore, peculiarly fitted at the present moment by his distinguished record, his great reputation and his devotion to Canadian interests, to act as leader of the Conservative party. And this is said without any desire to injure the position or minimize the services of Sir Mackenzie Bowell. The latter, in his own way, has done prolonged and useful work, and if he can still unite the party and lead a strong government to battle, he will merit all the support we can give him. But such a result seems very doubtful, and it may, therefore, soon be the duty of Conservatives generally not only to reflect upon the situation and urge their leaders at Ottawa to merge personal jealousies and minor issues, but also to unite upon the strongest man in sight—the man who embodies to our people the National Policy in all its various branches of protection, and railway, and cable, and steamship development. Sir Charles Tupper would be a fighting, aggressive leader. He would carry terror into the Opposition camp, and the very chance of his having the opportunity to do so has already shaken up the Liberal press into a position of mingled fear and invective. He would be a strong leader—one whom his colleagues would respect and serve under without constant private dissensions and public differences. He would be an experienced, cultured leader, such as our political life requires, and such as only the wide field of British public life fully develops. He would, finally, be so well known in Great Britain, and so posted in all that concerns our mutual relations, as to constitute in himself an important factor of the present critical position in the international relations of the Empire. The opinions held by the High Commissioner ought to be well known and are sufficiently illustrated in his work and record.

Still, the public memory is short, and the following extract from his Budget speech in 1888 will be interesting :

"Does he (Sir Richard Cartwright) want to allow the enormous capital, the great skill, which has made the United States to-day one of the foremost manufacturing countries of the world, sweep our younger industries, with their smaller capital, out of existence, and compel the labor of this country, which, after all, it is our most vital and important consideration to keep in our midst, to go, as it had to go in those dark years of Canada (1873-8) down to Boston and New York, to do in another country the work required to be done in Canada, and which a subsequent Canadian government found that Canadians could do upon Canadian soil. . . . This scheme of unrestricted reciprocity is a folly—a mad folly. . . . We have not only the advantage of our great domain, with its inexhaustible resources, but we have over us the flag of the mightiest empire in the world, and under its aegis we can go forth with greater confidence than any man can possess, representing a community of only five millions of people. We can go forth knowing that in the remotest section of the world that flag is waving over our heads; that there are behind us an army, a navy and the moral force of a great Empire that will give Canada all the protection that she can desire."

This, in a nutshell, is Sir Charles Tupper's principle of action—the National Policy and a united Empire. And it was Sir John Macdonald's life principle and life work. Sir Charles, it may be added, is not an extravagant politician, although we are beginning to hear once more all the old-time reckless charges of a free-trade Opposition. He became Premier of Nova Scotia in 1863 upon a platform of economy and retrenchment. He controlled the contracts with the C. P. R., and the cost of its building to a great extent, and that undertaking was carried through at an expense which now appears marvellously small in view of the stupendous difficulties overcome, and, in comparison with the cost of American railroads, seems almost incomprehensible. His speaking, which was at one time rapid and impassioned to an extent which might occasionally deserve the designation of reckless, has been moderated by age and prolonged experience, and while retaining much of its forcefulness, has acquired more incisiveness and convincing power.

Such, in a few words, is the man whom the Conservative party may, ere long, hail as its leader, and whom the industries of Canada may once more regard as their recognized champion and exponent.

THE FISCAL OUTLOOK.

The manufacturers of Canada cannot afford to take the present situation quietly or indifferently. They have too long been under the impression that Conservatism, protection, and the people are, and must remain, united. The crisis at Ottawa shows that other questions than the guarding of Canadian industries may come to the front and perhaps wreck the only party which is prepared to protect the manufacturer and the workman against the hungry competition of our American neighbors. It is an unpleasant thing to say but it is one which every thinking man knows—we cannot, dare not, trust the Liberal party. Not only that but more must be said.

To let the Liberals obtain power at this critical period would be to flood the country with foreign goods at a moment when the people are ill-prepared to stand the crash which would follow; to bring a strain upon our industrial interests greater than the bulk of them could bear; to throw upon

the banks a burden of liability in the carrying of many manufacturing concerns which they would naturally shrink from or accept at serious risk to themselves; to increase the hard times, restrict or destroy the home market, and still further cheapen prices, decrease values, lessen wages, limit employment, prevent investment, and extend the present stagnation in certain lines to every trade industry in Canada.

But our manufacturers have heard this before and some of them are inclined to think it a cry of "wolf" when there is no wolf. The facts they believe; the situation under any considerable lowering of the tariff they fully realize. But the disposition is very often one of not believing that the Liberals would make much change if they did get into power. Everything points against this easy comfortable feeling. The situation in 1878 ought to be sufficient in itself; the hatred shown by Sir Richard Cartwright to those whom he considers "thieves and robbers" for desiring to be protected in their various avocations against unfair and monopolistic competition; the well known free-trade views of such men as Mr. Davies, Mr. Charlton, Mr. D. C. Fraser, Mr. McMullen, Mr. Longley and other leaders; the announced policy of the Liberal party in convention assembled, to say nothing of the Cartwright resolutions in Parliament, and the tons of commercial union literature spread abroad at the elections of 1891 should be a combination convincing enough to wake even a Rip Van Winkle. The great Convention of Liberals at Ottawa on June 20th, 1893, declared clearly and explicitly that "the Liberal party is prepared to enter into negotiations with the United States with a view to obtaining a fair and liberal reciprocity treaty, including a well-considered list of manufactured articles." Surely this policy is definite enough. It is far more so than the Democratic policy which brought such wreck and ruin upon the industries, the trade, the investments, and the credit of the United States in 1893. Some, at least, of the beginnings of trouble there were due to the mere threat of change in the tariff; much more was due to the overhanging cloud of Wilsonian legislation during many weary months; still more was due to the actual realization of that threat. A change of government here must mean either a lower tariff or a reciprocity arrangement. In either case the direct injury of competition will be serious; the indirect injury of preliminary preparation or negotiations disastrous in the extreme. Are the manufacturers of Canada ready to face this possible result of the coming elections? They will do their best to face any eventuality which may be forced upon them, but are they willing to rest on their oars and, looking back over the past years of protection, think that because safety and reasonable success has so far been with them it is therefore bound to continue without further aid or action from themselves? Let them reflect upon the consequences in 1893 of financial folly in the United States, of tariff tinkering and tariff uncertainty under a party in power with free trade leanings. The figures have been collected and are sufficiently vivid :

Decrease in exports	\$74,000,000
" imports	64,000,000
" bank clearances	8,000,000,000
Reductions in wages paid	35,000,000
Six months withdrawal of deposits from national banks	375,000,000
Decrease in railway earnings	12,000,000
Capital of railways sold under foreclosure	79,924,000

The failure of hundreds of banks, the closing of mills, fac-

tories and industries almost innumerable, a disturbance of every interest, a shock to every business, a loss to almost every individual, a shrinkage in almost every investment, a closing year with two million idle wage-earners, and a record of 15,000 business failures, constituted the result of tariff tinkering in the United States. We came through unscathed except by an undercurrent of depression. But would Canada come out of a similar tariff experiment without injury? Times must soon improve in the States, and with that improvement must come a steady gain in Canada. But just at this moment a fiscal revolution is threatened—it may be small or it may be great—and from it will result inevitable doubt, difficulty, and disaster. It therefore behooves every manufacturer to unite in a common cause, the cause of Canada and its industries; to merge personal feelings, if there are any, or individual discontents where they may exist, in a strong support of the party which best represents Canadian interests. They should impress the Government—whether it be a *Bowell* or a *Tupper* administration—with the belief that they are, first of all, strongly and unitedly in support of the National Policy as the main plank in the party platform, and as the only one in which they are vitally interested; secondly, that it should be a National Policy Government and not one running after side issues and will-o-the-wisps; thirdly, that they are able, as a body of energetic, patriotic and responsible Canadians, to do good and practical service for the Ministry which in this crisis does its duty to the interests which are common to the manufacturers of Canada and the country at large.

WAR AND POLITICS.

Nothing so unsettles business and disturbs the financial interests of a country as war talk or a general election. We are unfortunate just now in combining the two. Good often comes out of evil, however, and so far as the threatening attitude of the United States may consolidate Canadian sentiment, broaden and strengthen Canadian patriotism, make necessary a wise and cautious increase in Canadian militia efficiency, and promote the feeling of national interest in the concerns of our great empire, it will have done a signal service to the Dominion.

The moral of the present situation is plain to those who are able to analyze it, and is not hard for even the most busy man to get a glimpse of. The message of President Cleveland has indicated, in its results, that the majority—the governing, voting, majority—of the American people is hostile to England, Canada and the British Empire. It is an unpleasant thing to feel; it is a still more unpleasant statement to make. But the vast mass of the American press has proclaimed itself ready to fight with us over an issue which seems to be mainly the product of party emergencies, and the wildly prejudiced, and ignorant result of a desire to find somewhere a ground or loop-hole for attacking Great Britain. The first scare is over, but the situation remains unchanged; little or none of the American war talk has been withdrawn; none of the spirit of antagonism which lies at the base of that talk has been soothed or placated.

It will take an immense amount of provocation to make Great Britain fight the United States, and the contingency is one which we all dread to discuss—not from cowardice or unwillingness to meet the issue if it be forced upon us, but from

general motives of humanity and brotherhood. What good, however, will the prevalence of this Christian spirit throughout the empire avail, if the political, press, and even the pulpit, education of the American people should continue to build upon that already given in the schools, and give a distorted, mistaken and hostile view of everything British or Canadian? The result would be inevitable, whether it comes upon the later phases of the Venezuelan question or upon some other strange development of the American educated idea that every action or institution of England is inimical to their peculiar national interests.

War is not, however, probable at present, either in Europe or America, though the talk of it everywhere continues to have a bad effect upon international relations and trade. England's fortunate display of naval strength will have its effect upon European powers as well as upon the United States, and the American press correspondents' wild statements about a supposed Russian, French and German combination against England is as impossible in war as it is probable in peace. No doubt that secret combination, aided by the public expressions of American hostility, prevented Lord Salisbury from helping the miserable Armenians, but it is one thing to combine for diplomatic purposes and another for French and German and Russian soldiers to stand side by side on the field of battle.

None of the three powers would be willing to aid in strengthening the other; and each would suffer from England's enormous naval and money resources. The Indian armies with but little assistance could hold the frontiers of Hindostan; British fleets would take possession of France's great territories in Asia with but little trouble; Germany's African possessions would fall an easy prey; while British subsidies would procure the support of the powerful Italian fleet, and of innumerable improvised cruisers in every ocean and sea of the world. It would be a tremendous struggle, but even the almost impossible union of the three great powers named would be worsted in time and leave England as she was in 1815, mistress of the world. This is by no means a fancy picture of the result, though it is one which circumstances will hardly fill in with the lurid colors of so great a war.

But the preparations now going on will make the Mother Country ready for whatever comes, and Lord Salisbury, with his experience of the Beaconsfield policy of vigorous determination, which in 1878 saved the situation, and at the Congress of Berlin brought peace and honor out of almost certain war, knows that readiness in such emergencies prevents war nine times out of ten. They will also serve as a warning to the United States. If it takes thirty pages of Lord Brassey's Naval Annual to record the warships of the British navy, and but two to list those of the United States; if it is a fact that the ships now under construction in British docks are as numerous as the whole American navy; if it is true that American coast cities would be defenceless, American commerce helpless, and the blockade of all American ports certain—then we must conclude that war will not be just yet.

There is, however, one lesson for Canada to learn from the situation, and that is the impossibility of entering upon any relations with the United States other than those of dignified, courteous and conciliatory friendliness. Commercial relations not hostile to England we cannot get, and any other would

mean a condition equivalent to national helplessness in the event of future trouble, through the instant abrogation of the Treaty; or else the alternative of annexation and support of the United States against the Mother Country. And all this without regard to the welfare of our industries under such circumstances; the unity of the Empire and the diversion of trade from the Canadian Pacific Railway; the probability of absolute refusal by England to assent to an arrangement which involved discrimination; and our own position of dependence on the American Republic should it be permitted.

So far as this moral is concerned, therefore, the talk of war and the coming general elections are intimately related. While all Canada has been a patriotic unit in connection with a possible invasion of our territory, or an attack upon Great Britain, it is not yet a unit upon this fiscal question. And until the Canadian Opposition disavows the principle of reciprocity in manufactures and agricultural products, and abandons its pledge to negotiate a treaty at Washington the day after obtaining power, so long will the war talk and American hostility be a factor in the coming contest.

IMPERIAL POLICY.

The Salisbury Government since coming into power made at least one important departure from precedent and past policy. It seems to have been determined that the unity of the Empire shall be strengthened not only by spoken words of sympathy but by practical efforts. To this end Lord Salisbury gave the Colonial portfolio in his Cabinet to one of the leading statesmen of England instead of handing it over to some of the third rate politicians who come within the class of those who expect and will accept a place without caring what the position may be or whether they have any particular fitness for it.

And if we are to believe current rumors, Mr. Chamberlain himself wanted to be Colonial Secretary. He was wise enough to grasp the fact that a brilliant reputation might be made in drawing together the countries of the Empire, and that a vast service to humanity and peace and British power might be rendered by any one skilful enough to initiate united action and possessed of ability sufficient to carry it into beneficial operation. Mr. Stanhope had made a beginning in the Imperial Conference of 1887 and Lord Knutsford had followed him in aiding that scheme effectively and earnestly, but neither of them were statesmen in the wide, true sense of the word, and their general policy was somewhat weak and ineffective.

Mr. Chamberlain is a very different type of man. A born leader, he is energetic, aggressive and as skilful in organization as he is clever and successful in legislation. He has been in touch with the masses, he is in harmony with the classes. He represents Radicalism in his social schemes, he voices Toryism in his Imperial sympathies. A man who thus bridges over the past and the present, and who unites popular appreciation with aristocratic support seems to have been born for bridging over the old-time period of indifference to Colonial power and the present development of strong and mutual sympathy. His policy in South Africa has so far been vigorous and successful. His first effort in the direction of Imperial unity has also been a wise and fitting one. The request which he recently despatched to the Colonial governments for exact and detailed information as to the trade done with Great Britain

and foreign countries; its increases and decreases; the cause of changes so far as they can be ascertained; the best means of promoting a better trade; is a significant and valuable step in the right direction.

It means that England has at last awakened to the importance of Colonial commerce, and to the advisability and possibility of mutual aid in developing the resources of the Colonies in the interest of the British people at home as well as of those abroad. For the colonies, as a whole, purchase double, and in some cases treble the amount per head of their population to that taken by foreign countries from Great Britain, and it naturally follows that where the population of Canada or Australia can be increased by the judicious co-operation of England, the market for the Mother Country will be proportionately enlarged. And this without necessarily affecting local industries. Under a tariff arranged a little differently, and in return for help given us in some of the many substantial ways in which Britain can aid us, why should we not, for instance, take from England the four or five millions dollars' worth of iron and steel products now bought from our commercial rivals in the United States?

When able to manufacture in this direction for ourselves the matter will assume another phase, but in the meantime some other development will have taken place, and some other preference be rendered possible. On November 23rd last, at the Brighton meeting of the National Union of British Conservative Associations, a resolution in favor of closer commercial relations within the Empire was carried unanimously, and Mr. John Lowles, M.P., observed in the course of his speech:—

I know that our foreign trade forms a larger volume than does our colonial trade, but the latter is rapidly gaining, and to-day represents a third of our total export trade. Is it too much to suppose that with improved communications and with increased population the next decade will witness a great change in the relative position of our foreign and colonial trade? They stand upon different platforms and they start from different standpoints, for of our foreign customers it may be said as it was said of the Dutch, "they give too little and ask for too much."

Hence, perhaps in some degree, Mr. Chamberlain's willingness to subsidize our proposed fast steamship line and to help the Australian and Canadian cable. Hence the significance of his inquiries about Imperial trade and the causes of its ebb and flow. It is possible that wars and rumors of wars may now defer the development of this Imperial policy, and it is to be feared that the crisis at Ottawa will delay Canadian action and hamper the success of projects and hopes with which the Bowell Government, and the Conservative party especially, has been so long identified. In this connection it would be well for Mr. Laurier to speak out. We are of no party or faction. We support the National Policy, as do thousands of Liberals throughout this country, and the Conservative party so long as it carries out the fiscal principle embodied in the National Policy. Mr. Laurier unfortunately seems absolutely pledged against the maintenance of Protection, but he has never denounced, and we hope he never will, the Imperial policy which is now being commenced by Mr. Chamberlain in England long after its inception in the brain and speeches of the late Sir John Macdonald.

Still, it would do him some good, and the country a considerable service, if Mr. Laurier would declare the sympathy which we believe he feels for these schemes of British development, and would proclaim more and more clearly

his aversion to any Americanized policy and tariff. The old policy along that line is said to have been abandoned, and we hope sincerely that it has. The country and the manufacturing interests can understand and participate in a fight between the two issues of moderate protection and moderate or limited free trade, without feeling lowered in a national sense, though they might fear being injured in a commercial, financial and industrial sense. But they do not want any more battles with annexationist schemes and American sympathizers. This, therefore, is a great opportunity for the Liberal leader. Let him at this critical juncture, proclaim his belief in a general British policy, and clear the air for a fair fight upon the direct fiscal issue in which the masses of our people are at this moment most interested.

CECIL RHODES AND SOUTH AFRICA.

It is safe to say that there is no subject of current importance upon which so much trash has been lately written as the Transvaal and South African question, and no public man who has been so much misrepresented to American and Canadian newspaper readers as Mr. Cecil Rhodes. Our despatches teem with innuendoes about a possible declaration of independence in Cape Colony, and statements of Mr. Rhodes' restless personal ambition and probable republican views. But the truth is that no more loyal and British state exists under the flag of England than the Cape Colony, and no more thoroughly British leader labors within the wide domains of the empire than Cecil Rhodes.

South Africa has been the scene of much turbulence from its great variety of races, and its historic memories of Kaffir wars, and Zulu wars, and struggles with the Boers and the Matabeles, and countless other native tribes, constitute a confused medley of change and bloodshed. In 1815 the Cape, after being for a long period in possession of the Netherlands, came finally under British dominion, and between 1835 and 1853 the "treks" of the old time Dutch settlers into the interior resulted in the formation of the Orange Free State and the Transvaal. The Dutch did not like British interference with their slaves and their right to deal with them as they liked. Hence the main cause of the migration. But many remained in Cape Colony and are now as loyal and peaceable citizens as any within its boundaries. Their chief leader is the Hon. J. H. Hofmeyer, a strong Imperialist and representative of the colony at the Imperial Conference of 1887 and at the Ottawa Conference of 1894. Constitutional Government was given the Cape in 1853, but withheld from the neighboring colony of Natal until last year. Meanwhile war after war and one annexation after another took place until the country a few years ago presented the most marvellous patchwork of governments and varying systems of dependence and independence which has, perhaps, ever been seen.

One chief cause of the troubles existing was the fact that the High Commissioner in South Africa was the Queen's representative over states where only a nominal suzerainty existed—such as the Transvaal; over states annexed to Cape Colony—such as Mashonaland; over states which were British but not attached to the Cape—such as Zululand, over countries despotically governed—like Bechuanaland; or governed with a constitution—like the Cape; or not gov-

erned at all—like Swaziland. The natural result for many years was confusion worse confounded. Out of this chaos Cecil Rhodes brought something like order. Into this disorganized mass he breathed something of the spirit of unity. Through these varied countries and nationalities he carried the principle of joint action and a common interest. And everywhere his real object has been to extend and promote British power.

When the British South African Company was formed, it was done avowedly after the pattern and fashion of the East India Company. Its nominal purpose was trade, its real object extension of territory and power. Everyone in England knew that; everyone in Cape Colony understood it. In 1890 Mr. Rhodes, a millionaire and the president of this company, became also Premier of the Cape. His policy was simple but strong. First, a customs union of all the South African States, and in this he has to some degree succeeded. Secondly, a railway union and mutual co-operation for purposes of trade. In this, to a great extent, he has also been successful. Thirdly, no interference with the flags of existing foreign States within the South African circle. Lastly, a policy voiced in the expression (Kimberley, October, 1890) that "within our lifetime the Cape will be stretched to the Zambesi." And speaking to the Afrikaner Bund, March 31, 1891, he told that great Dutch organization in Cape Colony that "if there was anything that induced him to take the position of Prime Minister it was the fact that he had resolved in his mind that they should extend to the Zambesi."

But this process was to be carried out because he believed he could "gain the confidence of the mother country," and because it was possible to obtain South African union, "fulfilling in every respect your ideas of self-government, and yet you are not asking us to forfeit our loyalty and feeling of devotion for the mother country." It is a farce to write of Cecil Rhodes and disloyalty. Some years ago he sent Mr. Parnell £10,000 upon the promise that the latter would support a Home Rule system, which should include representation of the colonies at London. In 1892 he stated his general policy to be one of co-operation in the attaining of a great Britannic confederation, in 1893 he offered pecuniary aid to the stricken Australian colonies, in 1894 he volunteered to send, and did send, delegates to the Intercolonial Conference at Ottawa: last year he declared his hope of carrying the thin red line of British telegraphs and railways from the Cape to Cairo.

It is true that his policy has been aggressive. The British South African Company has carried matters with a high hand, until they have practically given to England a territory nearly as large as Europe (without Russia.) But everywhere order has followed upon chaos, peace has replaced internal war, and a kindly administration has succeeded the rule of native despots. He has crushed the cruel government of Lobengula, and has preserved Zululand from the Boers. He asked the Imperial ministry to include in the Constitution of Mashonaland a clause making it illegal for any future population of that territory to place higher duties upon British goods than they imposed upon those of foreign countries. Thus, therefore, is the man whom we are asked to look upon as a possible traitor to England!

And it is equally difficult to believe that he instigated the

recent raid upon the Transvaal. Such an action is opposed to his whole life-policy of conciliating the Republics. Speaking at Capetown in September, 1892, he declared that :

If there is one good thing in the sentiments of the President of the Transvaal, it is the sentiment of his independence. If there is one good thing in the sentiments of the President of the Orange Free State, it is his independence. And yet some of you will talk about the union of South Africa, knowing full well that that means (from your stand point) the disappearance of the flags and the independent systems of those Republics. You must not do that. Supposing the President of the Transvaal proposed the disappearance of your flag and of your local feeling. You would not like it at all. What you must do is what the Ministry is trying to do at the present time, and that is to make a railway union and a commercial union with those States.

This is the language of a statesman. Mr. Rhodes is willing to have a practical union and to wait for time to effect the nominal union. Meanwhile he surrounds the two Republics with British territories, drives the Portuguese back to Delagoa Bay, and declares in the speech just quoted that "if I have one good feeling or sentiment it is the love which I have for the flag that I was born under and under which I continue." He long ago told the Imperial Government that if his duties as head of the chartered company, and as Premier of the Cape ever conflicted, he would resign the latter. And he has now done so. But the Cape Government remains in the hands of his friend, follower and late colleague, Sir Gordon Sprigg, and he himself still holds the high honor of membership in Her Majesty's Imperial Privy Council; is still head of a great chartered company, and is in reality one of the few really great men of the British Empire.

This present difficulty is in all probability a mere interlude in his important mission and vast schemes for a united British South Africa.

CANADA-AUSTRALIA TRADE.

We are in receipt of a letter from Mr. H. J. Boswell, senior member of the mercantile firm of Boswell, Son & Gilbert, Sydney, N.S.W., in which he makes some remarks and suggestions regarding Canadian Australian trade that those of our readers who are interested in that trade will be interested in.

Respecting the class of goods required in Australia that are or can be manufactured in Canada, Mr. Boswell mentions the finer lines of boots and shoes for men, women, misses and children, particularly such as are made of or decorated with enameled or patent leather, buff, kid, etc., leather and rubber belting and rubber goods generally, sand shoes, mackintoshes, rubber fire and garden hose, and mechanical goods made of rubber; bicycles; boats, oars and sculls of ash and spruce; road carts, carriages and carriage woodwork; carriage springs and axles; spades, shovels, hoes, rakes, etc., for garden and farm use; scythes, shoe lasts and shoe pegs; clothes pins, household and office furniture, desks, chairs, etc.; mantels and ornaments; oak and ash mouldings, lumber, such as black walnut, oak and bird's eye maple; sporting goods, such as cricket bats, tennis rackets, etc.; news, wrapping and other papers; fine toilet soaps; blankets; carpets; machinery for the manufacture of boots and shoes, etc.

Of the articles that are in demand in Canada, and that Australia can supply Mr. Boswell mentions raw sugars, ivory nuts, varnish gums, hides, tallow, sheep skins, rabbit skins,

furs, wood for street paving, said to be the best known for that purpose, oranges, lemons, limes, cocoa nuts, etc.

It is most important that in either exporting or importing, in corresponding with agents regarding the shipments to send full and explicit particulars affecting prices, discounts, samples, etc., and most important of all, arrange for the payment of all freight and other charges. If it is promised that goods are to be shipped on a certain date, see to it that they go on that date. This will prevent much confusion, misunderstanding and possible loss. If the shipments are experimental too great financial results should not be expected therefrom. It is not wise to send samples in the expectation that large and remunerative orders will immediately follow. The trade and intercourse, being new, must be done cautiously. It must be cultivated.

Mr. Boswell thinks that much is yet to be done towards improving the method of communicating between Canada and Australia, and that unless this is done, not only will the trade not improve, but what already exists will probably fall away. He says that the steamers on the route do not compare favorably with even the American line from San Francisco and are immeasurably inferior to the Peninsular and Oriental steamers. No steamers of less speed, accommodation and efficiency than the Empress ships of the Canadian Pacific line plying from Vancouver to China and Japan will answer. Good steamers will draw trade—poor ones repel it.

We are promised other letters from Mr. Boswell from time to time the purport of which we will have much pleasure in laying before our readers.

TUTORIAL NOTES.

When would be free traders attack Sir Charles Tupper so fiercely it is safe to conclude that they fear him.

The Hon. D. C. Fraser, M.P., a probable member of any future Liberal Government, spoke at Sussex, N.B., the other night, and referred to the tariff as comprising "the miserable rags of rotten protection."

Canada now supplies England with nearly \$16,000,000 worth of cheese out of the total of \$26,000,000 which the mother country consumes. This is pretty good for the great agricultural industry of the Dominion.

Canada and England are equal at last. We have Mr. Goldwin Smith. The mother-country has Mr. John E. Hammond. And both these otherwise diverse men seem to agree in their hatred of Imperial unity.

Senator Sherman says that the increase in the United States' national debt between March 1st, 1893, and Dec. 1st, 1895, has been \$162,602,245. The deficit for 1893-4 was \$69,000,000, and for 1894-5 was \$42,000,000. For the last six months it has been \$17,000,000.

The manufacture of bicycles is an emphatic proof of the continued value and necessity of protection. We now make nearly enough to supply the whole Dominion, but without the 30 per cent. tariff would have obtained the bulk of our supply from England and the United States.

Canada may have a deficit, but it has not yet reached the verge of bankruptcy, or a position which necessitates a despairing appeal from the Governor-General to Parliament and the people for financial aid. Such seems to be the situation in the United States as voiced in the President's financial message.

Says the Globe of January 10th: "If Sir Charles Tupper comes back to Canadian politics it will mean one advocate of protection the less in England." This seems a good argument for those who want Canadian industries to flourish, and who would at the same time like to see Sir Charles, Prime Minister of Canada.

The Globe is reviving the old fiction that our tariff discriminates against England. Yet it knows that the duties upon American and British articles are exactly similar. The exigencies of trade and demand and supply may discriminate against England in favor of the United States in some articles, but certainly the tariff does not.

The Birmingham and Warrington, Eng., manufacturers are just now greatly alarmed by the growth of German competition in the wire trade. Many hundred tons of bright wire and wire nails are coming in every week and the local industries are hopelessly distanced in prices. Free trade is ruining them as it has others in so many other's cases.

The injury done by free trade to agriculture as well as manufactures is a very old story. In the latter days of the

Roman Empire the unrestricted importation of grain into Italy resulted in the ruin of the farmer and the collapse of production at a time when plentiful food supplies might have been national salvation. It did not take long to put 330,000 acres of land in the Campagna alone, out of cultivation.

As illustrating the rapid development of an industry by and through protection, the article of chicory in the United States is worth noting. It had never been produced in that country until Mr. McKinley placed it in his tariff schedules. Within ninety days after his bill became law forty-seven factories came over from France and Germany, and the industry now pays millions of dollars in wages.

The returns of the British army for Jan. 1st, 1895, show a total strength of 222,151 officers and men; the highest number reached in twenty years. The Reserves number 82,674; the enrolled militia 121,667, the yeomanry, 10,014; and the volunteers, 231,328. There is a total, therefore, of 667,000 men without calling for enlistment or taking a single man from the vast Indian armies and large Colonial auxiliary forces.

The Globe has the courage to intimate that Sir Charles Tupper supported Mr. James Lowther and the protectionists of England in proposals to tax Canadian grain. Yet it knows that the fundamental principle of the protectionist party in the United Kingdom is the free admission of Colonial products, or else a distinct preference, such as was given even under the stringent tariffs of the corn-law period. Is this fair controversy?

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The fight in West Huron, as in several recent bye-elections, was made more upon side issues than upon protection versus free trade. Whatever the actual practical policy of the Opposition may be, its theoretical principle and hope is free trade. Upon that issue it should be met and beaten. Its policy would be guided by the principle if it attained office, and we know what that meant in the case of the Democracy and the United States.

The incidents connected with the political fortunes or misfortunes of some of the men in control of the "machine" at Ottawa and Toronto are a disgrace to Canadian public life. They show, however, the desirability of having business men of ability and honor in Parliament. Unfortunately the defeat of Sir W. Hingston in Montreal reveals the difficulties in the way. Sir William Hingston will do credit to the Senate, but his appointment immediately after defeat in Montreal Centre does no credit to the Administration.

The figures of our export trade in 1878 and 1894 are decidedly interesting, as proving the fact that the possession of a safe home market increases production and export—just as the absence of such security at home diminishes the supply sent abroad:

Product	1878	1894
The Mines.....	\$ 2,762,762	\$ 5,799,337
" Fisheries.....	6,853,975	11,102,692
" Forests.....	5,912,139	6,834,184
" Farms.....	32,028,611	49,559,622
" Manufactures.....	17,780,776	27,215,691

If free trade injures agriculture in England, how can it

benefit farmers here? If the United States cannot stand British competition, how can Canadian manufacturers endure American competition? Speaking on Oct. 30, 1895, Lord Salisbury referred very plainly to the first consideration. "I remember," said he, "the contempt which was poured upon the idea that the repeal of the Corn laws could injure English agriculture. Now you see the lowering of prices, which is the result of free trade, has almost killed agriculture in several portions of this country."

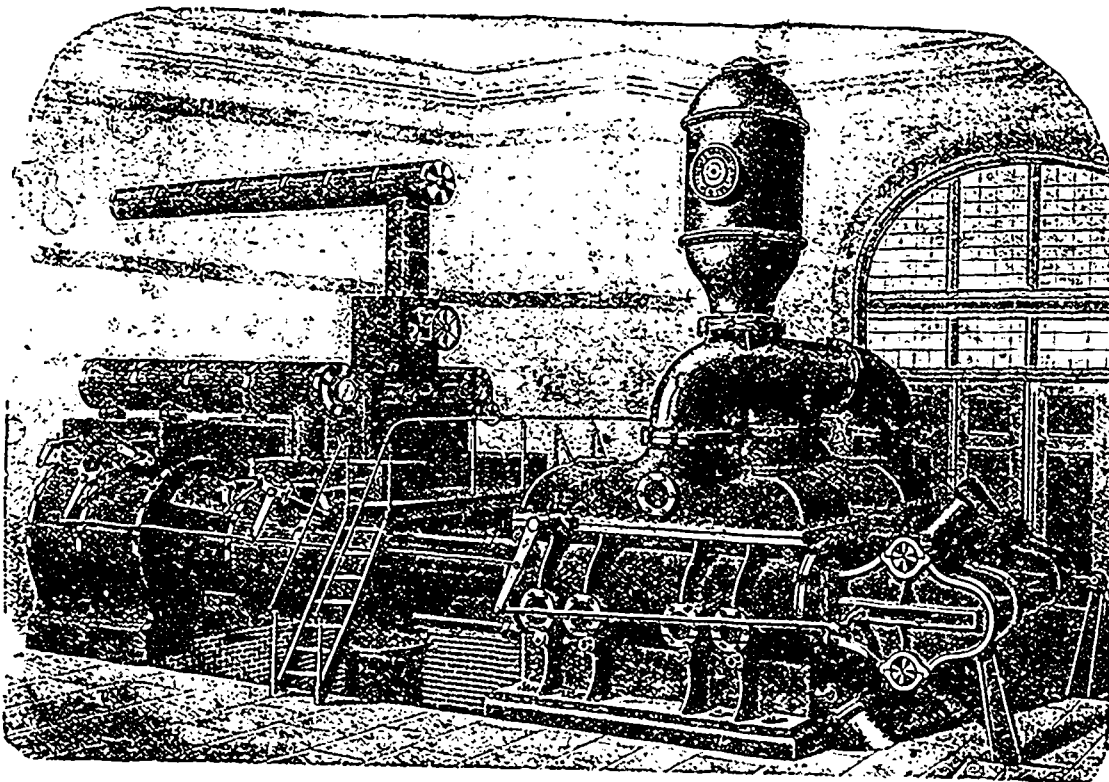
Bradstreet gives us the interesting information that while the failures in Canada during 1895 were a little more numerous than in 1894, there was in reality a distinct improvement, the liabilities being \$15,347,931 as against \$17,721,633 last year. It is worthy of note that when "hard times" and a revenue tariff were combined in 1873 the Canadian failures showed \$12,331,000, while in 1895 with the enormous increase in business and industry and the addition of immense territories and over a million of population the amount was only \$15,300,000.

The recent letter of the Earl of Rosebery to Mr. J. Castelli Hopkins is another proof of how closely English leaders watch Canadian affairs, and how greatly they appreciate the sympathetic loyalty of the Dominion. The language of the Liberal leader shows, too, that both of the great parties are a unit upon questions effecting the Empire. Lord Rosebery writes that "I cannot help feeling very proud of Canada at this moment. Out of evil comes good, and from President Cleveland's message has come a splendid and spontaneous proof of the loyalty and spirit of the Canadian people."

JOHN McDOUGALL

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WORTHINGTON PUMPS ARE UNEQUALLED FOR EFFICIENCY AND ECONOMY

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THE FAMOUS

Worthington
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AND

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The following unusual, but all the more creditable utterance, by an American—the Rev. T. W. Bates, lately connected with the Central African Mission—is worthy of recollection and appreciation:

Too much is being said against the greed of England. She has done more for Africa than any other nation. She has a history in Africa extending over centuries. Her occupation has always resulted in the elevation of the nations. She alone of all the nations forbids the sale of intoxicants to the natives; she aids in education and civilization; she gives the natives the rights of a man. It would mean a decided advance in civilization if England might have all of Africa instead of the small share that has fallen to her.

The Knighthood recently conferred upon Colonel C. E. Howard Vincent, C.B., M.P.,—well-known in Canada for his advocacy of preferential trade—is a compliment to one of the ablest and most consistent English advocates of protection against foreign countries. Last year he was President of the Council of the National Union of English Conservative Associations, and as such helped to carry another resolution through that important body in favor of protection and a preferential tariff within the Empire. His many friends in Canada will heartily congratulate Sir Charles Howard Vincent on the well-deserved honor conferred upon him by the Queen.

The Montreal Herald says that “the essential feature of protection is that it discriminates in favor of the rich against the poor.” It really discriminates in favor of the Canadian artisan against his American multitude of competitors; in

favor of the struggling Canadian industry against the wealthy foreign one, or against the large monopolies of a country which has sometime abused protection in place of using it and made it in certain cases a despotic master instead of an all valuable servant. It discriminates in favor of the weak against the strong, the masses against the classes who would like, and are able, to buy elsewhere than in their own country; in favor of this Dominion against the industrial and commercial world.

The London Free Press speaks well and forcibly of the iron industry lately established in Ontario. It says:

The new smelting works and rolling mills at Hamilton were inaugurated a few days ago. The business of these works, which are carried on by a company representing a million dollars capital, is to manufacture pig iron from Canadian ores. It is intended to develop our rich natural stores of iron, making them available in home manufactures. This company would not be formed, their capital would not be thus employed, and the sister city would be without this great industry, but for the duty that is imposed on the iron products of other countries. The customs duty put on by the Dominion Government has been supplemented by a bounty from the Ontario Government, the necessity of protection as a means of promoting iron smelting in Ontario being thus acknowledged by the leaders of both political parties.

Yet Mr. Laurier and the Dominion denounce the principle as unsound and injurious.

The Pall Mall Gazette of Sept. 24th 1895, has a significant article from which the following is an extract:

Industrial England seems to be awakening at last to a fact which we have been dinning into it for years past—the

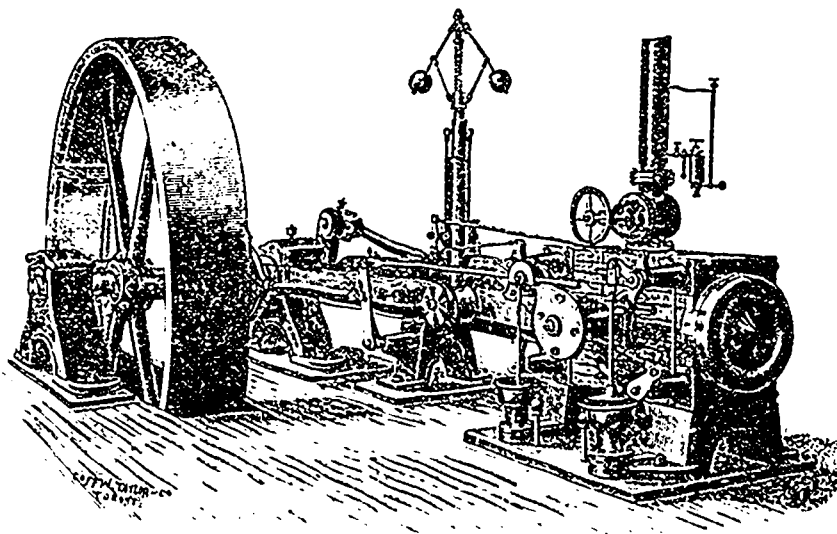
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serious nature of the competition which has arisen between our manufacturers and those of the continent for the possession of the iron trade. * * * So far from increasing with the world's demands our iron and steel shipments have actually diminished, while so far from decreasing with the growth of our own productive capacity, our imports of articles in these categories from Germany, Belgium, and even from France, have gone up in an almost astonishing manner.

Protection has enabled the United States to make an enormous advance in this direction. The general record of production for ten years in these countries may be left to speak for itself:

Country.	1880. Tons.	1890. Tons.
Great Britain	7,749,233	7,875,130
United States	3,835,191	9,202,703
Germany	2,729,038	4,563,025
France	1,725,293	1,962,196

Yet there are some who doubt the industrial value of a protective tariff!

The Montreal Herald says.

The Liberal party is led by a safe man, who is surrounded by safe men. The leader and his party at large have too great a stake in the country to enter upon any readjustment of the fiscal policy of the country that shall not conduce to the greatest possible increase of industrial activity and national activity.

Is Sir Richard Cartwright a "safe" man for Canadian industries? Do Messrs. Charlton and Edgar, and Israel Tarte, and D. C. Fraser, and Longley, come justly under that designation? The platform of the Liberal party, adopted unanimously at the Liberal Convention of 1893, and upon which

Mr. Laurier declares himself determined to stand or fall announces that:

"The customs tariff of the Dominion should be based, not as it is now upon the protective principle, but upon the requirements of the public service."

"It should be so adjusted as to make free, or to bear as lightly as possible upon, the necessaries of life, and should be so arranged as to promote freer trade with the whole world"

"We denounce the principle of protection as radically unsound and unjust to the masses of the people. And we declare our conviction that any tariff changes based on that principle must fail to afford any substantial relief from the burdens under which the country labors."

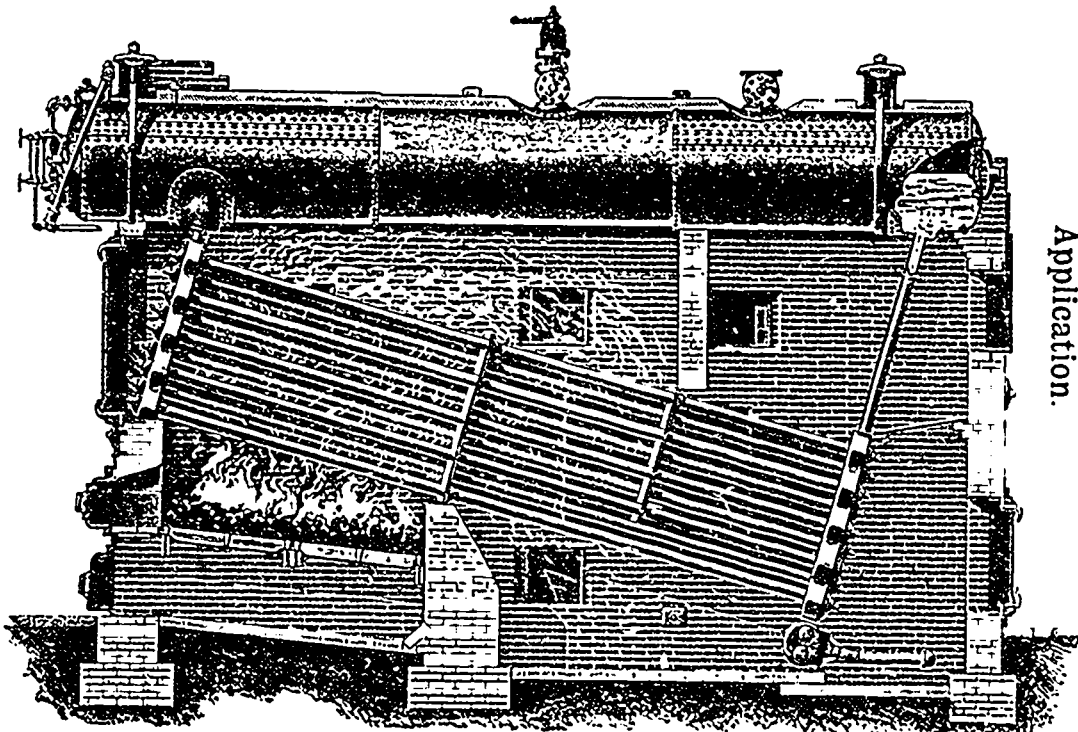
Are the radical changes herein foreshadowed likely to promote industrial activity? If every vestige of this "unsound" principle of protection be removed is the proposed Liberal tariff likely to be a very safe one? We leave these questions to the manufacturers of Canada to consider and act upon.

A recent parliamentary paper concerning "Foreign Bounties on Shipping," based on reports by British ministers abroad, makes an interesting exhibit regarding bounties on the construction and running of ships paid in various countries. Special inquiry was made by the home government, says Bradstreets, whether any changes had been made with respect to such bounties or subsidies since 1889. The reports just at hand do not indicate many changes of bounties on construction or running other than mail service. But, as might be expected, alterations have been made by most nations representing postal subsidies, and, it is explained, "these in some cases, particularly in the United States, are high enough to

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Sales During 1892 were 167,300 Horse Power.
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act as bounties on construction. In Austria the bounties on construction in national yards have been increased and exemption from taxes extended under the law of December, 1893. In Hungary a new law comes into operation on January 1, 1896, by which construction in national yards is preferentially subsidized. In Denmark there are no subsidies on construction, but a certain line of steamers receives a bounty "proportional to the cost of the freight of dairy produce and of fish carried to England," which is an interesting fact. France introduced various changes into her elaborate system of bounties on construction and running by the law of January, 1893. Foreign-built ships can no longer earn navigation bounties in France. In Italy no changes have been made in the system of bounties since 1889, but some alterations, presumably in the direction of increased advantages to Italian shipbuilders and owners, are contemplated. As regards Russia, some interesting particulars are given respecting the volunteer fleet. "The United States," says the Times, "does not directly subsidize the construction or running of ships, but various enactments exist which practically give indirect bounties on both, apart from what may be called legitimate postal subsidies."

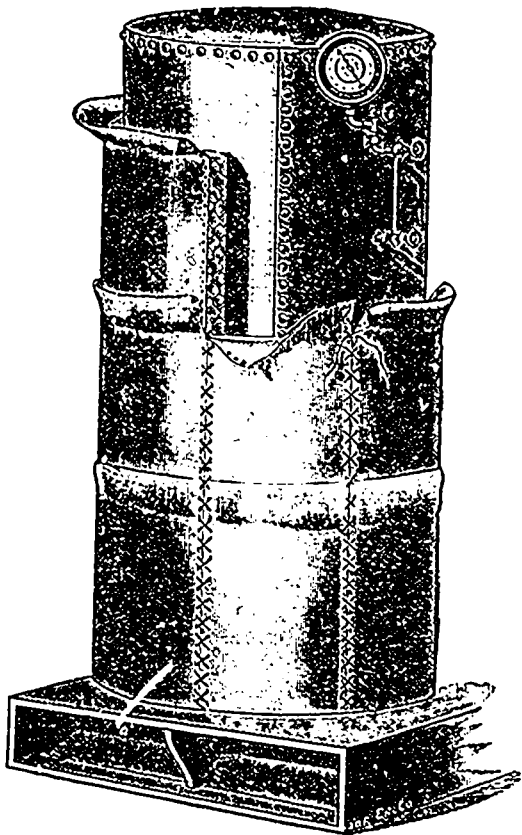
Massey's Magazine, a sequence of Massey's Illustrated, is about the latest literary magazine that has found its way to our table. The copy before us, Vol. 1, No. 1, for January, is an exceedingly creditable production, and cannot but find favor with those into whose hands it may come. The original form of Massey's Illustrated was published for seven years, 1882-1888. With January 1889 came a change to a new series which concluded its seventh volume with the December issue 1895. The new publication, Massey's Magazine, now supercedes the Illustrated. We are told

that the first issue of the new magazine will include not less than 20,000 copies. If this circulation can be maintained the financial success of the publication is assured. The literary features of it are first-class. We wish it every success.

The initial number of Industrial Canada has come to us. It is, we are informed, a striking out in a direction which has not heretofore been covered by trade journalism in Canada—in fact it is intended to fill a long felt want, and the publishers no doubt expect to see subscribers tumbling over each other in their efforts to hand in their dollar bills, and advertisers blocking the doorway to the business office to obtain preferred positions for their announcements. All the same, whether the rush is experienced or not, or whether the business that will have to sustain the publication is had by hard, persistent, steady and intelligent work, as is usual on such occasions, or otherwise, we offer a hearty welcome to our new competitor, assuring it that there is always room at the top for those who are able to get there, and that labor is necessary to crown the effort. W. Sandfield Johnson, publisher, Toronto.

Good Housekeeping for January is a special number, all of its articles having been written by men. Among the authors are Geo. K. Holmes of the United States census bureau, Rev. Henry M. Field, D.D., Charles Dudley Warner, Prof. Franklin H. Giddings of Columbia College, Milton Bradley, Superintendent Thomas M. Balliet of the Springfield (Mass.) schools, Architect E. C. Gardner, Prof. Chas. D. Woods of the Storrs Experiment Station, James S. Molineaux, M.D., Newton Norton, A. G. Ormand and Clark W. Bryan. The papers from these popular authors take a wide range, and there is the usual quota of excellent verse and entertaining miscellany. The number opens a new volume of this interesting and valuable publication, with high promise for the future. Subscription \$2 a year. Sample copies may be had free by addressing the publishers, Clark W. Bryan Company, Springfield, Mass.

The Royal Electric Company have just completed the installation of one of their 30 K.W. "S.K.C." two phase generators with transformers, for the Glen Williams Electric Light Co., of Georgetown, Ont. The plant is being driven by water power, and is intended to furnish power for a number of factories as well as lighting.



1895.

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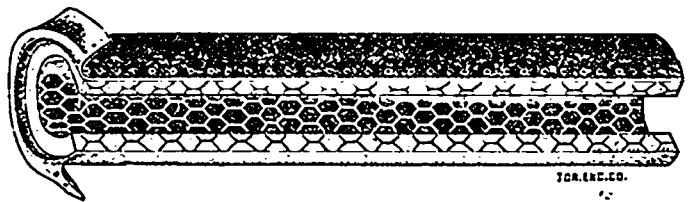
The well known **Electrical Insulator** successfully adapted as an insulator of **Steam heat** **Enormous Saving of Fuel Guaranteed** by the use of **Mica boiler and steam pipe covering.**

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A CANADIAN STEEL INDUSTRY.

Mr. Wm. Hamilton Morrith has written a letter regarding the manufacture of steel in Canada, in which he says:—While our iron industry has Governmental encouragement, a Canadian steel industry has been sadly neglected, for with free steel rails a complete iron or steel policy is impossible. Nowadays we must almost read "steel" where we used to read "iron." The following figures will give some idea of what we are losing under our present iron (or free steel rail) policy:—

To the railroads:—	
On account of 2.4 tons of ore at 60c. from mine to lake port.....	\$1.44
On 1.5 tons of coke at 80c. from Suspension Bridge to furnace.....	80
On limestone .5 ton at 55c. from quarry to furnace.	28
On .8 ton of coal at 80c. from Suspension Bridge to furnace.....	64
To the lake carrier:—	
2.4 tons of ore at \$1 from lake port to furnace....	2.40
To labor:—	
On 2.4 tons of ore at mine at \$1.....	2.40
On limestone .5 ton at 35c. at the quarry.....	17
To labor and manufacturing. —	
1 ton at \$6 per ton.....	6.00
	<hr/>
	\$14.13
If we obtained our coal and coke from Nova Scotia instead of purchasing it from the United States, we would then add:—	
On freight by vessel (allowing for lower railway rates).....	\$2.50
On coke and in mining 1.5 tons at \$1.50 at the ovens.....	2.25
On .8 ton of coal at \$1 at the mine.....	80
	<hr/>
Total.....	\$19.68

Over and above this amount of, say, \$20 there are other expenses, and loss by wear and tear to be met, therefore it will be seen that after allowing for any profit on the coke, coal and ore, etc., no margin exists to work on while English rails can be landed on our shores for about \$24 a ton. The makers of steel rails in the United States are now complaining that, even with their protection of \$7.84 per ton, the western part of their country has been given over to the English rail maker under "the iniquitous Wilson tariff"

Last year we imported free steel:—

	Tons.	Value.
Locomotive and car wheel tires in the rough.....	769	\$41,858
Rails over 25 lbs. per yard....	87,467	1,748,660
Steel for skates.....	141	9,768
Steel for hammers.....	67	8,042
Steel for saws and straw cutters....	432	68,768
Crucible steel for reapers, etc....	338	23,232
No. 20 gauge or less.....	194	20,109
Sheets for shovels and spades.....	34	2,298
Wire, Bessemer.....	144	8,998
Wire, crucible cast steel.....	277	28,253
Wire for ships.....	124	10,084
	<hr/>	<hr/>
Total.....	89,987	\$1,965,070

We could very properly add to the above steel rails for tram ways, about 12,000 tons valued at \$265,334, which, however, paid duty. Therefore we see that about 100,000 tons of steel rails were imported last year—during hard times—the great bulk of which came in free. If we consider that \$20 per ton is lost to the country on transport and labor on every ton, we would be the richer by \$2,000,000 a year if we manufactured our steel rails in Canada.

Besides the steel rails there is also a considerable amount of free steel, as seen in the above list. When these are all added to the other iron and steel articles under the duty list, and to which you draw attention yesterday, it will be seen that the amount of deficiency yet remaining to be filled by our own manufacture is very large.

Besides considering the indirect loss in labor which might be employed in the country, we are brought face to face with the fact that a very serious direct drain of from two to three million dollars

PACKARD

Lamps

...and...

Transformers

PACKARD

.....PRICES ARE RIGHT AND QUALITY GUARANTEED.....



...Get Our Quotations on Supplies...

We carry a Full Stock of

SOCKETS, CUT-OUTS, INSULATORS, WIRE,

ETC., ETC.

The Packard Electric Co., Ltd.

ST. CATHARINES, ONTARIO

in gold is going on year by year to pay for steel rails alone, to pay for labor in other countries instead of employing it in our midst and then some political economists wonder why we have to go on borrowing.

Re CANADIAN CEMENT.

We have much pleasure in publishing the following communication :

Editor of the CANADIAN MANUFACTURER, Toronto.

DEAR SIR:—In your edition of December 6th we notice an article under the heading "Canadian Cement" which has been widely copied by the press of the Dominion.

In this article it is stated that a schooner load of Belgian cement, intended for use in the construction of the Burlington canal bridge, was condemned by the engineer of the Dominion Government in charge, and returned to the shipper in Montreal. It further states that Government officials specify only imported cement and the impression is left that the work is being done with English or Belgian cement. We wish to correct such a wrong impression which is, no doubt, due to a lack of information, and to assure your readers that the Dominion Government does make proper provisions for the use of Canadian Portland cement which comes up to the standard required.

The facts of the case are, that the contractor for this work purchased imported Portland cement on a guarantee that it would stand the tests prescribed by the engineer's specifications. It was found, however, after delivery, that it could not stand these tests, and it was accordingly condemned and ordered to be removed from the works by the engineer. The contractor then purchased "Star" Portland cement, manufactured in our works at Napawee Mills. The work is now nearly completed, and no complaint regarding the cement has been made.

Yours truly,
THE RATHBUN COMPANY.

DESERONTO, January 14, 1896.

Large quantities of the Hayes Patent Metallic Lath have been supplied for the restoration of the Trinity College School in Port Hope, by the Metallic Roofing Co., of this city. This lathing is a splendid protection against fire.

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.

A. Simard's tannery at St. Paul's Bay, Que., was recently partly destroyed by fire.

The town of Kincardine, Ont., has renewed exemption of taxation on Watson & Malcolm's furniture plant for the next ten years.

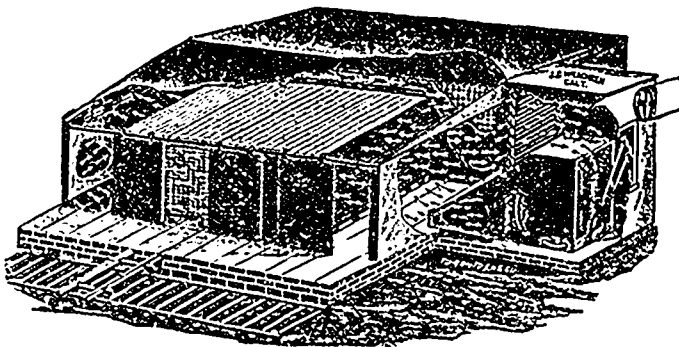
The corporation of the city of Moncton, N.B., have installed in their lighting station one of the Royal Electric Co.'s two phase "S.K.C." alternating dynamos with a capacity of 1,500 lights, this was done to meet the increased demand for incandescent electric light.

The Penberthy Injector Co., Detroit, Mich., have sent us an 1896 office calendar, recently issued by them from their Penberthy press, that city. It is exceedingly neat and attractive in appearance, and can not but be serviceable as an office adjunct throughout the year. It is a good specimen of the work of a department of their business which they established several months ago for the printing of their extensive lines of circular advertising matter and for getting out their monthly Penberthy Bulletin.

The B. Greening Wire Co., Hamilton, Ont., have just received a patent for a new wire chain cow tie, invented by them which was placed on the Canadian market last fall. This will prove a very welcome Christmas box for that enterprising firm, for owing to the great success of their new tie foreign manufacturing firms were already preparing to place an inferior article, which is an infringement, in competition. Needless to say the Greening Company will hold what they get and will not tamely submit to any infringement either by makers or those who would seek to import an infringing article.

McEachren's System of Drying, Heating and Ventilating

Under Recent Patents.



CHEAP AND EFFECTIVE.
HIGHLY APPROVED OF BY PRACTICAL MEN.

The following is a specimen of letters received from customers :

J. D. McEACHREN, Esq., Galt, Ont.

OTTAWA, April 1, 1895.

DEAR SIR,—Replying to your enquiry regarding Dry Kiln purchased from you last summer, we beg to state that our lumber is stained hardwood, principally birch which is put through a chemical process thereby rendering seasoning a very difficult operation. We tried to have it dried in the several styles of kilns used by factories in this district, all of which failed to take the moisture out of the core of the wood. In August last we put in one of your kilns with a capacity of 10 cars, or 30,000 feet, and since that time have seasoned most satisfactorily about 200,000 feet. The boards come out free from checks and warps, and we are now thoroughly convinced that it is the only dry-kiln in the market which fills the bill both as to efficiency and economy.

Yours truly,

McRAE BROS. & CO.

For particulars address—

McEACHREN HEATING AND VENTILATING CO.
GALT, ONTARIO

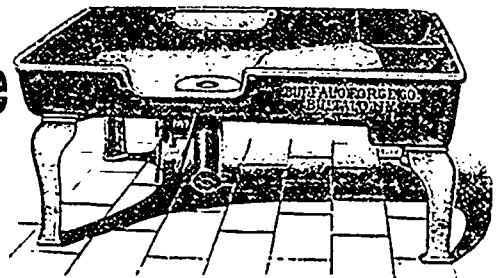
Buffalo Planing Mill Exhaust Fans

EFFICIENCY UNEQUALLED
DURABILITY UNSURPASSED
SMOOTH RUNNING
INCOMPARABLE

Forge

IN THE WORLD

Thirty Eight other Designs of Portable and Stationary Types.



BUFFALO LUMBER DRY KILNS

Blowers, Blacksmiths' Tools, etc.

—SOLD IN—

Toronto, Ont., by H. W. Patrio.
Brantford, Ont., by Canadian Machinery & Supply Co.
Montreal, Que., by Canadian Machinery Agency.
Chicago Store, 22 and 24 West Randolph Street.

A company is being formed to erect a pulp mill at Richibucto, N.B. The Mayor will give information.

F. Gauthier's sash and door factory at Drummondville, Que., was destroyed by fire Jan. 3rd. Loss about \$7,000.

Messrs. Shaw & Son, rattan manufacturers, are contemplating the removal of their works from Hamilton, Ont., to Brampton, Ont.

The Smoke Preventer Co., Montreal, are applying for incorporation with a capital stock of \$10,000 to manufacture smoke preventers, etc.

Gault Brothers & Co., Montreal, are applying for incorporation with a capital stock of \$750,000 to take over the business of Gault Brothers & Co., of that city.

The International Dredging and Construction Co., Montreal, are applying for incorporation with a capital stock of \$100,000 to engage in the building of public works, etc.

Mr. R. Hartman is erecting a sawmill at Albert, Ont.

The Deschenes Electric Co., Aylmer, Que., have been incorporated with a capital stock of \$60,000 to construct works for the manufacture of electric machinery, and of electricity for light, heat and power.

The Brantford Bicycle Supply Co., Brantford, Ont., have been incorporated with a capital stock of \$25,000 to manufacture bicycles, carriages, supplies, etc.

Mr. G. A. Powell, assistant manager of the Packard Electric Co., St. Catharines, Ont., informs us that his company have been appointed sole agents in Canada for the full line of electrical supplies manufactured by the Bryant Electric Co., Bridgeport, Conn., and for the R. Thomas & Sons Co., East Liverpool, Ohio, who are perhaps the largest manufacturers of porcelain ware in America.

The Doherty Process Co., Hamilton, Ont., are applying for incorporation with a capital stock of \$120,000 for the purpose of acquiring and working patents of invention in connection with the processes of melting iron or iron ores, and with the application of such processes to iron-founding.

The Northumberland Stone Co., Shediac, N.B., have been incorporated with a capital stock of \$10,000 to carry on a general stone quarrying business.

Mr. W. P. Plant has moved his foundry from Norwood, Ont., to Hastings, Ont.

The Citizens' Gas Control Co., London, Ont., have been incorporated with a capital stock of \$9,000 to manufacture appliances for controlling and regulating the flow and pressure of gas, etc.

The Niagara Falls Metal Works Co., Niagara Falls, Ont., have been incorporated with a capital stock of \$95,000 to manufacture chains, traps, saddlery, hardware, etc.

Toronto will erect new buildings on the Yonge street wharf at a cost of \$8,600.

E. F. Bunker is in Amherst, N.S., organizing a company to start a carriage factory.

The Ira Cornwall Co. Ltd., is being incorporated at St. John, N.B., with a capital stock of \$10,000 to manufacture and repair bicycles, typewriters, electrical apparatus, etc. The company will have a thoroughly equipped machine and repair shop.

Messrs. W. J. Matheson & Co., New York, direct attention to a new product belonging to the group of their diamine colors, under the denomination of Diamine Grey G, patented, manufactured by Leopold Cassella & Co. Cotton is dyed in the manner usually applied to diamine colors, e.g. in light shades with the addition of five per cent. Glauber's salt, one per cent. soda and one per cent. soap; for dark shades the quantity of Glauber's salt is increased up to fifteen per cent. In combinations with other Diamine colors the additions used for the latter can be applied. Diamine Grey G is easily soluble, dyes very level and penetrates well, so that it can be recommended for direct dyeings as well as for mixtures. It is well adapted for dyeing such material as copra, slubbing, etc., in mechanical apparatus. Dyeings done with Diamine Grey G show an extreme fastness to washing and light; they are not influenced by dilute acids and do not change in shade by long storage. Hot ironing alters the shade somewhat, but not to an appreciable extent. Light shades can be discharged with tin crystals, dark ones better with zinc dust. Cotton and silk mixed goods are dyed with the addition of two per cent. phosphate of soda, two per cent. soap and ten per cent. Glauber's salt, by which method both fibres are dyed the same shade. Silk is dyed with the addition of ten per cent. Glauber's salt and from one to two per cent. acetic acid, thus yielding dyeings fast to water.

The Royal Electric Comp'y

MONTREAL, QUE.



Western Office.... TORONTO, ONT.

Are now prepared to receive orders for the justly celebrated

STANLEY TRANSFORMERS

—A MONEY MAKER FOR THE CENTRAL STATION—

None equal them. They increase station capacity. They diminish operating expenses.

Economy Efficiency Regulation

ALSO A FULL LINE OF ELECTRICAL APPARATUS

ARC DYNAMOS ARC LAMPS RAILWAY GENERATORS RAILWAY MOTORS

S. K. C. TWO PHASE ALTERNATING GENERATORS AND MOTORS

Direct Current Generators and Motors, Switchboards, Instruments, Wire, Electrical Supplies.

CORRESPONDENCE SOLICITED For ELECTRIC LIGHTING, RAILWAY, MANUFACTURING AND MINING WORK
ISOLATED PLANTS, CENTRAL STATIONS, LONG-DISTANCE TRANSMISSION
FOR LIGHT AND POWER.



L. Seebach will build a flax mill at Fullarton, Ont.

Messrs. Meyers & Co., will start a bicycle factory at Peterboro', Ont.

Norwood, Ont., is to have a new foundry. The Mayor will give information.

Wingham, Ont., will supply electric light for both Wroxeter, Ont., and Gorrie, Ont.

The Sherbrooke, Que., Gas and Electric Light Co. have recently installed a 75 K.W. two phase "S.K.C." generator from the Royal Electric Co., Montreal, which is being used for both light and power purposes.

Reconstruction of the building of the Ottawa Powder Company, destroyed by the recent dynamite explosion, is about complete. Operations will commence again in a few days.

The Farnham Quebec Light Co. have their new plant in operation, they are running by water power. They intend to supply light and power from the same dynamo and have installed an "S.K.C." two phase generator, built by The Royal Electric Company of Montreal.

Messrs. A. Dubord & Co.'s tobacco factory at Montreal was damaged by fire Dec. 4th. Loss about \$5,000.

The Canadian Fibre Chamois Co., Montreal have been incorporated with a capital stock of \$100,000 to acquire the business heretofore carried on by the Canadian Fibre Chamois Co., Montreal.

The Empire Tobacco Co., Montreal, will move their factory to Granby, Que.

The Forest, Ont., Electric Light Company have placed in their power station one of the Royal Electric Company's "S.K.C." two phase generators having a capacity of 600 incandescent lamps. They expect to have the dynamo fully loaded in a short time.

Messrs. A. C. Leslie & Co., Montreal, inform their friends that on the 1st inst. Mr. W. S. Leslie, who has long been their chief assistant, was admitted as a member of the firm.

A glass factory will be established at Leamington, Ont., by Jas. Lydiatt, of Toronto, at a cost of \$25,000. The factory will have an output of about \$300,000 and will employ from fifty to one hundred hands.

Pakenham, Ont., will shortly be lighted by electricity.

Louis Carle's flour mills at St. Ursule, Que., were recently destroyed by fire.

Fire destroyed the pottery warehouse of S. F. Class, near London, Ont. Loss about \$13,000.

The mill at Perth, Ont., owned by Jas. E. Porter, M.P.P., of Andover, N.B., was recently destroyed by fire. Loss about \$5,000. Mr. Porter will rebuild.

Mr. Rochester, Mattawa, Ont., is contemplating the erection of a creamery.

Messrs. I. Matheson & Co., New Glasgow, N.S., have been incorporated with a capital stock of \$60,000 to carry on the business of iron founders, machinists and engineers, and to manufacture machinery, etc.

The Power Rope & Belting Co., St. Catharines, Ont., have been incorporated with a capital stock of \$20,000 to manufacture rope, belting, etc.

The Bain Wagon Works, Woodstock, Ont., have been incorporated with a capital stock of \$250,000 to manufacture wagons, carriages, etc. This concern was formerly known as the Bain Wagon Co., of Brantford, Ont.

The Continental Twine & Cordage Co., Montreal, have been incorporated with a capital stock of \$50,000 to manufacture binder twine, cordage, etc.

The breweries belonging to P. & J. O'Mullin, Maritime Brewing and Malting Co., John Lindberg and C. W. Hayward & Co., all of Halifax, N.S., and Morris & Hyndman, Charlottetown, P.E. I., have been bought up by the Halifax Breweries, Ltd., Halifax, N.S.

The Cottingham Varnish Co., Montreal, have been incorporated with a capital stock of \$20,000 to manufacture varnish, japans, oils, etc.

The car shed of the Oshawa Railway Co., was destroyed by fire Jan. 2nd. Loss about \$12,000.

The Canadian Hammock Manufacturing Co., Perth, Ont., are applying for incorporation with a capital stock of \$6,000, to manufacture hammocks, etc.

...INCANDESCENT LAMPS...

Manufactured by....

THE EDISON AND SWAN UNITED ELECTRIC LIGHT CO.

STAND HIGHEST IN THE MARKETS OF THE WORLD
FOR GENERAL ELECTRICAL AND MECHANICAL
PERFECTION, AND ARE MADE FROM 1 TO 2,000 C.P.
IN ALL VOLTAGES, COLORS AND SHAPES . . .

Electrical Supplies of Every Description

JOHN FORMAN, 650 CRAIG STREET
MONTREAL

MOST BOTTTLERS KNOW

The extraordinary merits of



Ginger Ale

(DISTILLED.)

and are now placing large orders with us for the coming season's use. This concentrated and very soluble extract makes a bright, sparkling, smooth-flavored Ginger Ale, which is as brilliant as a diamond, clear as crystal, and pure as spring water. We fully warrant its superior quality, its uniform excellence, and remarkable strength.





4 ounces to the gallon. \$5.00 a gallon.

Don't Take Our Word

but send to-day for *free sample* and determine for yourself the supreme quality of these superlative goods. If you prefer to send trial order, which is often most satisfactory,

We Will Return Money

if the goods do not prove satisfactory to you in every respect.

 No charge for Packages. 
 Send for Bottler's Price-List. 

McKey & Co.,



Boston, Mass.

The ceiling of Mr. J. Robinson's jewelry store in Bradford, Ont., has just been covered with ornamental embossed Metallic Ceiling supplied by the Metallic Roofing Co., Toronto.

Mr. E. R. Cameron, president of the St. Thomas, Ont., Street Railway Company, has written the City Clerk that the negotiations for electrifying the street railway are off. The reason assigned is that owing to delay the company was unable to secure the financial assistance expected, and the company cannot now proceed unless the city guarantees its bonds. An offer to sell the franchise at a low price is made.

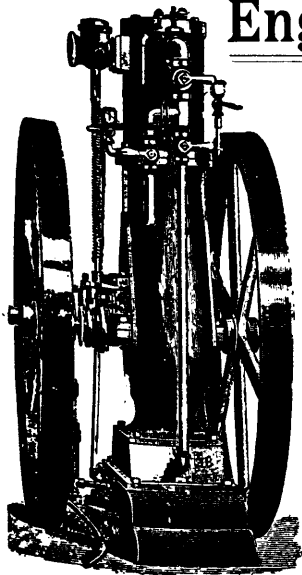
The largest part of the stock of the Berlin and Waterloo Street Railway Company has heretofore been held by Mrs. Burt, of New York. This stock has just been secured by W. H. and E. C. Breithaupt of Berlin, who now have a controlling interest. This deal undoubtedly means an increased efficiency and extension of the road, being now wholly owned by those who reside in Berlin. Mr. E. Carl Breithaupt is the President of the Company. In this connection it may be remarked that the Charter of the Grand Valley Railway, of which Mr. E. C. Breithaupt is President, is virtually held by the same parties who now own the Berlin and Waterloo road.

The New Halifax Gas Co. has chosen as a site the old penitentiary. The stock in this company is held for the most part by the same people as the Dominion Coal Co. It is, we are informed, the thin end of the wedge for a neat little metallurgical plant in Halifax. The illuminating gas is really to be a by-product in the manufacture of coke for foundry purposes, and an attempt will be made to manufacture a high class coke, with a view to replacing hard coal for household use. The company are starting on a sound

basis, and are putting up a plant to save all possible by-products. It is not improbable that at a later date iron smelters will be added to this plant. This industry will of course open up a considerable amount of trade for the Dominion Coal Co. The only regrettable part is that the site chosen is in the midst of one of the best residential parts of Halifax, and it is consequently meeting with a considerable amount of local opposition.—Mining Review.

Preparations for the immediate commencement of the building of the long-promised Montreal bridge over the St. Lawrence river to Longueuil are now being rapidly pushed forward. Out of the large number of plans that have been sent in by the most celebrated bridge architects in the world, including America, England, and even India, three of the best have been chosen by Mr. Shanly, the Montreal Bridge Company's consulting engineer, as worthy of the three prizes offered for competition—\$1,000, \$500, and \$250 respectively. The design which is easily first of these three, shows a bridge of magnificent proportions, combining great strength with elegance and moderate cost, and will, if chosen, be without doubt a considerable addition to the attractions of the commercial metropolis of Canada. With tracks elevated 150 feet above mean water level, and a principal span of 1,250 feet, it will be next to the Forth bridge, the largest structure of its kind in the world. The central span over the top channel will spring from two huge towers, one situated on Isle Ronde, the other on the wharf front. Negotiations are already in progress for the purchase of these two sites, and work will be commenced on the masonry early in the season, or as soon as the plans have been finally approved by the Government and other authorities. Together with the approaches, the bridge will be nearly two miles in length.

THE ELECTRICAL GAS OR GASOLINE...
Engine



WRITE FOR PRICES AND TESTIMONIALS

J. R. BAIRD

WOODSTOCK, ONTARIO

Firstbrook Bros.

Dovetail and Packing Boxes

Top-Pins, Side Blocks and Cross Arms. Wood Printers, Etc. Cigar Boxes. Shipping Cases.

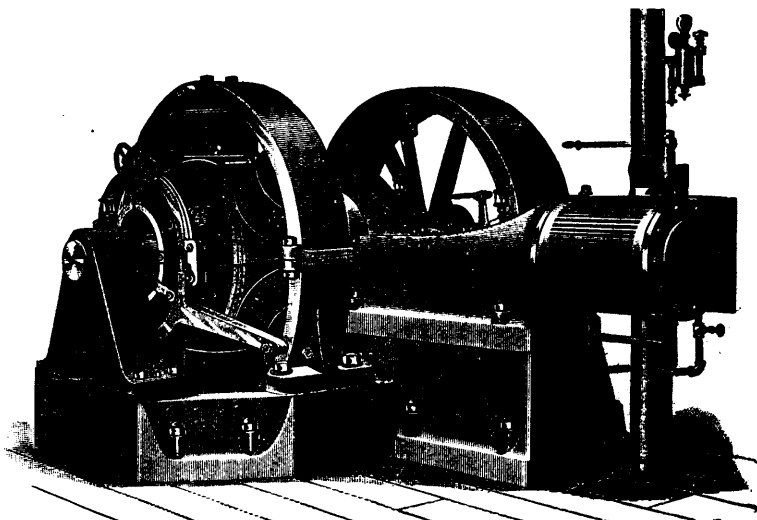
TORONTO, ONTARIO. Write for Prices.

SITUATION WANTED
BY AN ALL-ROUND MILL MAN. Experienced on cashmeres, flannels, shawls, blanket, etc. Has worked in some of the best mills in the New England States. Has been manager of mills for years. 40 years' experience. Age, 55 years; with family. Who wants my services? Good references. Address, **W. McL.**, Care Canadian Manufacturer, Toronto.

ROBB-ARMSTRONG ENGINES.

Simple, Tandem and Cross Compound.

Correct Design



Superior Workmanship

We highly recommend the Robb-Armstrong Engine for direct connection to Dynamo.

Robb Engineering Company (Ltd.)

AMHERST, N.S.

AGENTS-- Canada Machinery Agency, 321 St. James Street, Montreal
William McKay, Seaforth, Ont., Traveller.

SALESMAN WANTED.

A good salesman who thoroughly understands Steam Engines and Boilers, and can appreciate the value of good goods, wanted by a first-class manufacturing concern. A good opening for the right man. A knowledge of the French language would be of great advantage. Address, "**STEAM BOILER**," Care Canadian Manufacturer, Toronto.

SITUATION WANTED.

Situation wanted by a first-class Accountant who is about forty years of age. Thoroughly understands his business. Active, temperate, reliable and methodical. References of the highest order can be furnished, and security to any amount given if necessary. Address, "**ACCURATE**," Care Canadian Manufacturer, Toronto.

THE ROCHESTER LAMP CO.

MANUFACTURERS OF

The NEW ROCHESTER
PARLOR HEATER



No. 10 Parlor Heater.
Height 29 in.

Burns Coal Oil without odor.
A Quick Heat. A Uniform
Heat. Cheerful, Effective
Clean.

Will heat a room 15 feet
square comfortably in cold
weather.

THE NEW
"ROCHESTER LAMP."

THOROUGHLY UP-TO-DATE

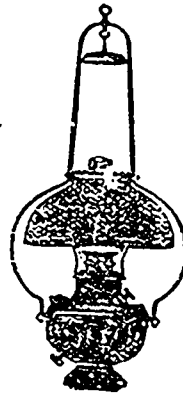
And you may depend upon it no other lamp
is "just as good."

FOUR SIZES.

GREAT VARIETY
IN DESIGNS.

HIGHEST
AWARDS

LONDON
PARIS
CHICAGO



Mammoth Hanging
Lamp.
100 Candle Power.

OUR NIAGARA GAS BURNER
HAS SPECIAL EXCELLENCE

THE ROCHESTER LAMP CO., 69 Bay Street, Toronto

W. J. Berry & Bro. will enlarge their factory at Providence Bay, Ont., and put in more machinery.

Messrs. Menzies, Turner & Co., Toronto, inform us that they are now putting in a plant for the manufacture of bookbinders' cloth.

The Delhi Fruit and Vegetable Canning Co., Delhi, Ont., inform us that they have recently booked export orders for twenty-one car loads of their products to go to Great Britain and elsewhere.

Messrs. Pierce and Mizuor have overhauled their sawmill at Providence Bay, Ont., and expect to be ready in the early spring for a good season's cut.

Mr. Benjamin Bock, Spring Bay, Ont., is busy getting in a good stock of logs and expects to have a shipment of lumber cut when navigation opens.

The Executive Committee of the Canadian Electrical Association held a meeting in Toronto, on 16th inst. They discussed and arranged a provisional programme for the Convention, which will be held in Toronto sometime in July next.

The Toronto Can Co.'s premises and Galloway & Taylor's foundry at Toronto, were damaged by fire Jan. 3rd. Loss about \$10,000.

Mr. Chas. Chambers is erecting a sawmill at Wilsonville, Ont.

The Sandou Water & Light Co., Sandou, B.C., are applying for incorporation to establish waterworks, and to operate works for the production of electricity for light, heat and power.

Lo Compagnie Electrique of Chicoutimi, Quebec, started their electric lighting plant last week. They have developed one of the numerous water powers in that town, built a new power house and are now supplying the town with incandescent light. The electric plant consists of a 40 K.W. "S.K.C.", two phase generator supplied by The Royal Electric Company, of Montreal.

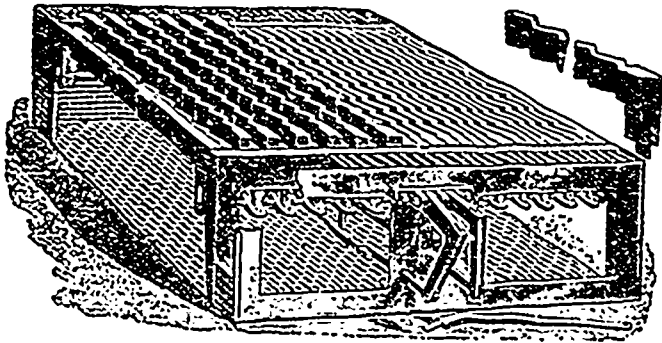
The Welland branch of the Toronto, Hamilton & Buffalo Railway is now completed, and a regular train service has begun between Waterford and Welland, via Brantford and Hamilton.

St. John's, Nfld., will shortly have an electric street railway.

Thibaults & Bros.' door and sash factory at Montmagny, Que. was destroyed by fire Jan. 4th. Loss about \$8,000.

THE VOLCANIC PATENT SHAKING GRATE

MANUFACTURED BY THE GURNEY FOUNDRY CO., Ltd., Toronto.



TORONTO, Jan. 17th, 1896.

THE GURNEY FOUNDRY CO., LTD., Toronto.

GENTLEMEN:—With reference to the Volcanic Patent Shaking Grates—I am glad to say that I am well satisfied with the working of the grates and am convinced there is a very considerable saving of fuel by their use.

Since putting in the "Volcanic" we have no clinkers at all, and use common uncleaned slack coal. We only clean out the fire once a week. When shutting down at night, the dampers are closed to shut off the fire and the next morning a few shavings thrown on top with a little fresh coal, is all that is needed to start the fire. This alone adds materially to economy in coal consumption.

My first impression that it was a first-class device and the best I had ever seen has been fully confirmed by the work the bars have done. I have no hesitation in recommending them as the best grate bars I have seen or used since I first entered the engine business eight years since.

F. W. BARRETT.

Late of the Polson Iron Works Co.

THE GURNEY FOUNDRY CO., Ltd., TORONTO.

DOMINION BRIDGE CO.

(LIMITED).

MONTREAL AND LACHINE LOCKS, P.Q.

Steel Bridges for Railways and Highways,
Steel Piers and Trestles, Steel
Water Towers and Tanks, Steel
Roofs, Girders, Beams, Columns,
for Buildings.

A Large Stock of....

ROLLED STEEL BEAMS, JOISTS, GIRDERS
CHANNELS, ANGLES, TIES, Z BARS
AND PLATES ALWAYS ON HAND

IN LENGTHS TO THIRTY-FIVE FEET

Tables, giving Sizes and Strength of Rolled Beams
on application.

Post Office Address, - - MONTREAL

J. H. MCGREGOR, Agent, Canada Life Building
TORONTO, ONT.

A special telegram from Vancouver, B.C., to the Montreal Star, says that there are immense coal deposits in the Crow's Nest Pass, sixty miles from Fort Steel. The C.P.R. will go through Crow's Nest Pass when it makes direct connections with the great Kootenay mining country. Other companies have attempted to build a railway through there but failed. Canada is unnecessarily sending a large amount of money to the States by these mines not being worked. Prof. Hoffman, the Canadian Government surveyor, says that the coal found in the Crow's Nest Pass is equal to the best coal of a similar kind in Pennsylvania. The area of the coal field exceeds 250,000 acres. The lowest known seam is 30 feet in thickness and anthracite in character; the next seam is 100 feet above this, 30 feet wide, and bituminous in character. Then at different distances, one above the other, are seams running 5, 7, 5, 15, 30, 3, 5, 7, 9 feet in thickness, some bituminous, some anthracite, and some a very fine quality of cannel coal.

THE OWEN SOUND CEMENT WORKS.

The factory of this important industry is located on the Owen Sound Branch of the G. B. & L. E. division of the Grand Trunk Ry. at Shallow Lake, a station nine miles west of Owen Sound. This industry was first introduced to public notice by a company of citizens of Owen Sound, in 1839. For the first few years of the Company's existence, they, like all new enterprises, had a hard struggle to make financial headway. They were men not easily discouraged, however, and knowing they had a good thing they persevered and had about overcome their difficulties, when in the summer of 1894 the entire works were destroyed by fire. Although there was only the comparatively small sum of \$15,000 insurance on the works, the Company, with commendable enterprise, immediately began rebuilding on a larger scale, and before the end of the year, they had the buildings completed. And, although the most of the expensive machinery used in the factory had to be imported from Europe, it was all in position and the manufacture of cement began before the end of the year.

The valuable material with which the company manufacture their cement is a natural deposit which covers an area of about 500

acres and lies in the bed of Shallow Lake, adjoining the factory. The quality of the raw material is unexcelled and the quantity is unlimited. In the spring and fall of the year the water accumulates in the lake to a depth of several feet, disappearing during the summer months until the earth becomes entirely dry, at which time a sufficient quantity of the material is taken out to keep the factory running throughout the winter months. The present daily capacity of the factory is one hundred and twenty-five barrels per day, and it is contemplated by the directors to double this capacity next summer, in order to promptly meet the growing demand for the article.

The G.T.R. have constructed two sidings to the factory for the delivery of coke and wood, and for the removal of the cement, and a third track will be necessary when the capacity of the works is increased.

Thirty-six thousand barrels of this cement were sold in Canada during 1895 and not a single complaint has been made from any purchaser as to its quality. The Company keep in their employ continuously the best practical men that can be procured in England. A chemist is constantly employed and every kiln carefully tested before the cement is allowed to go to the store rooms. McGill University, Montreal, and the School of Practical Science, Toronto, as well as many eminent engineers, architects and practical users who have become familiar with this cement, endorse the claim of the Company to make as good an article of Portland cement as can be imported from England or any other country.

When the proposed additions above alluded to are completed this Company will have one of the very best equipped cement factories, surrounded by the largest natural deposit of cement marl and clay, anywhere on the continent.

The manager, Mr. R. P. Butchart, Shallow Lake, P.O., Ont., will have pleasure in answering all enquiries addressed to him.

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The Buyers' and Sellers' Guide of Canada

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- 2nd—A list of Grain Merchants of the Province of Ontario and Manitoba who are classified as in the article list under sub-headings of the kind of grain that is shipped from their locality.
- 3rd—A list of Flour and Feed Merchants of the Province of Quebec and the Maritime Provinces who handle in car lots or larger quantities.
- 4th—A list of the Hardware Merchants throughout the Dominion who handle hardware goods only.
- 5th—A GENERAL LIST, alphabetically arranged for addressing purposes, comprising Saw, Lath and Shingle Mills, Heading and Stave Factories which cut from the log.

A list of Planing Mills, Sash, Door and Blind Factories, Furniture, Piano and Organ Factories, etc., which manufacture from lumber.

A list of Grist, Flour, Chop, Corn Meal and Oat Meal Mills, etc., which grind grain.

A list of manufacturing Machinists, which includes all metal workers using steam power. A total of over 7,000 addresses.

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In an Invention of exceptional Merit? If so investigate this advertisement. I want responsible parties to manufacture in Canada my

Hydraulic Washboard . .

Which keeps a constant stream of suds-water on the garment while being rubbed on the washboard. This invention has proven to be

A Success of Successes

Parties wishing to manufacture on royalty, or wishing to buy my Canadian patent, should write for particulars and terms. Address

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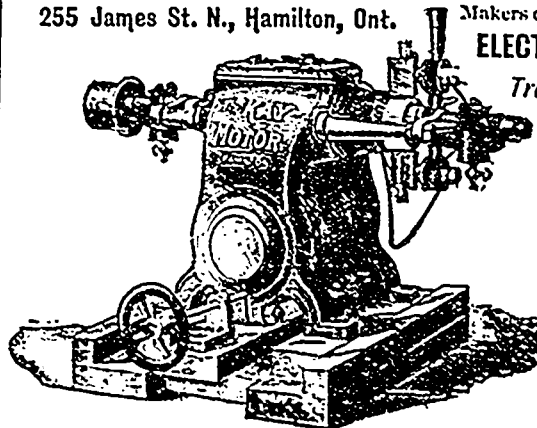
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Please let us know your requirements. Write for latest prices and testimonials.

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IMPROVED Corliss Engines

High Pressure, Condensing and Compound
FEED-WATER HEATERS and PURIFIERS

Heavy Fly Wheels a Specialty.

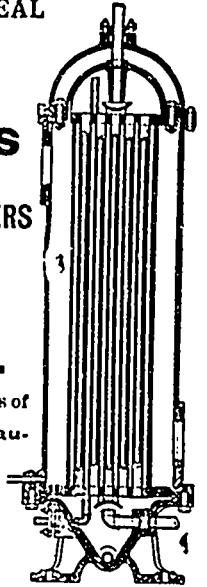
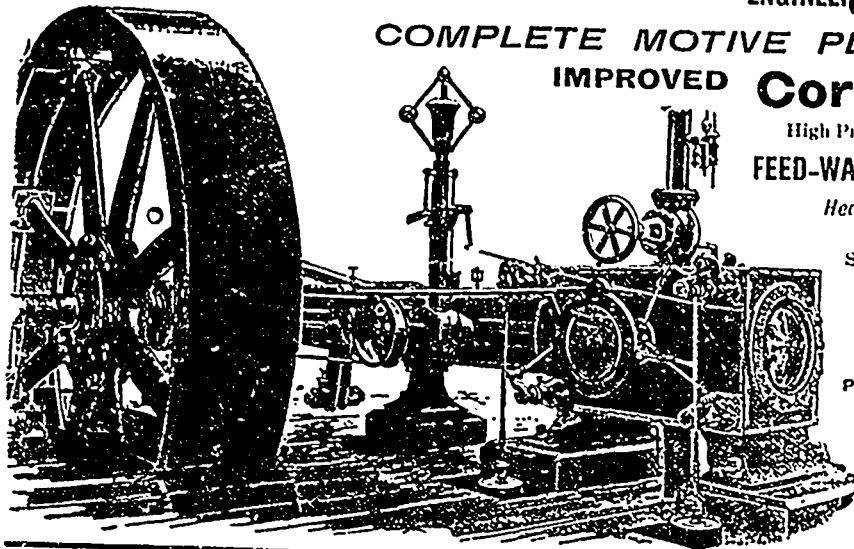
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For further particulars apply to
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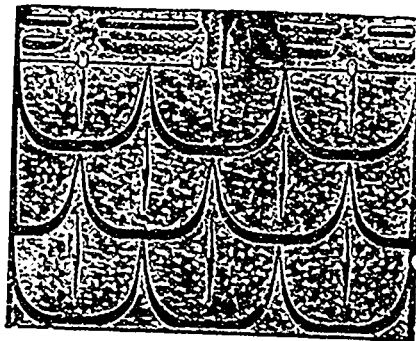
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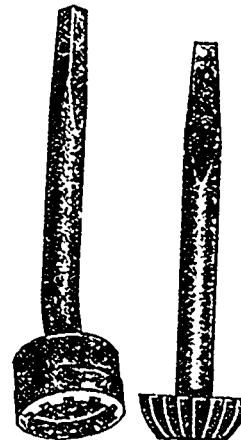
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Manufacturer of

Refacers for Globe Valves



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For all purposes—Hollow or Solid.

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Reproductions Made for Eight Cents per Square Inch



Half Tones Made Direct from Photos

THE STOREY DYNAMO AND MOTOR.

The Storey dynamo and motor is in its construction extremely simple, compact and symmetrical. It is a perfect cylinder in shape, the exterior of which is without flanges or bolts. The end caps in which the bearings, commutator and brush holders are located extend slightly from the heads of the cylinder, and the armature shaft is coincident with the axis of the cylindrical shell. The bases are detachable, leaving the machine a perfect cylinder adapted to fit into spaces and corners where ordinarily a motor could not be located.

These machines possess several novel features, the chief of which lies in the location of the pole pieces and the disposition of the field winding. They are four-polar, two of the poles projecting inward like a T, while the other two project inward from the edges of the cylinder, thus forming two annular spaces, in which are located the field coils. The direction of the current is such that the middle of the cylinder is of one polarity, while both ends are of opposite polarity. This creates eight distinct magnetic circuits.

The machine is entirely free from the common defect of magnetic leakage and has no external magnetism whatever.

The armature is a master piece of workmanship and design and is almost indestructible. The manufacturers claim that they have never known a Storey armature to burn out.

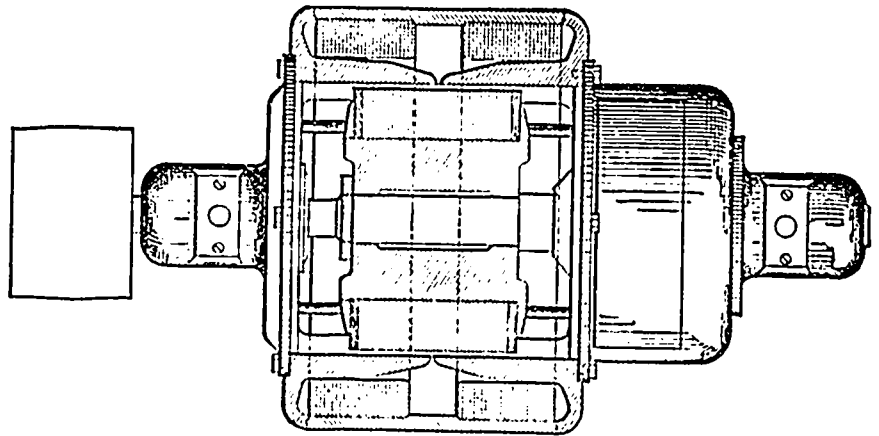
The brush holders are models of simplicity, the brushes, which are of specially prepared carbon, fit into rectangular slots and can be readily removed to be examined.

The main part or cylinder of the machine is made of steel, which, together with the peculiar location of the pole pieces and disposition of the field winding, gives a stronger magnetic field than it is possible to attain with the ordinary type of motor, more especially with the cast iron machines. The advantages of this is that the armature is made relatively weak, thus securing the highest possi-

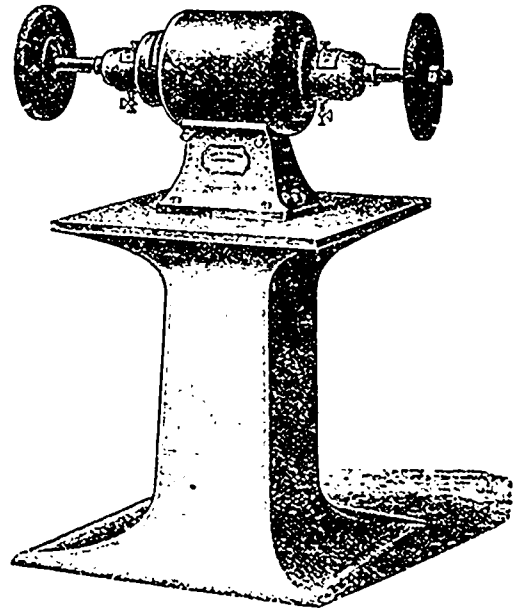
ble efficiency and perfect regulation; and heating is reduced to a minimum.

Another unique feature is that the motor is practically a hermetically sealed machine, there being ample radiating surface on the steel and iron to dissipate what little heat there may be generated without resort to ventilation. From this it can be seen that the machine, being entirely closed in, is perfectly protected from all possible external injury and is proof against dust and moisture.

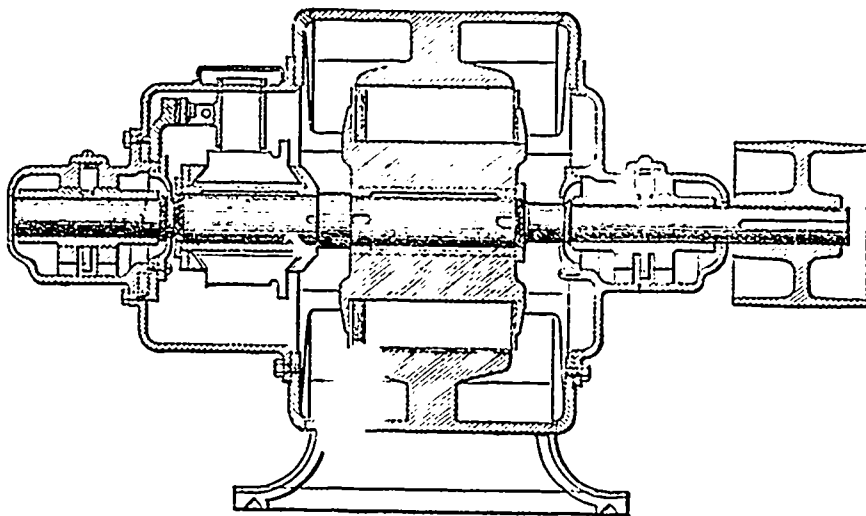
It would seem that a motor having



Storey Motor.—View 1.



Storey Motor applied to Emery Grinder.



Storey Motor.—View 2.

these advantages must be adapted for an enormous range of work, and for such places as mines, breweries, laundries, wood-working mills, etc., it possesses undoubted advantages.

The peculiar form of the Storey motor permits a union of beauty and usefulness in combinations of a motor and a tool, and as an evidence of this

The STOREY STEEL MOTOR and DYNAMO

Manufactured by

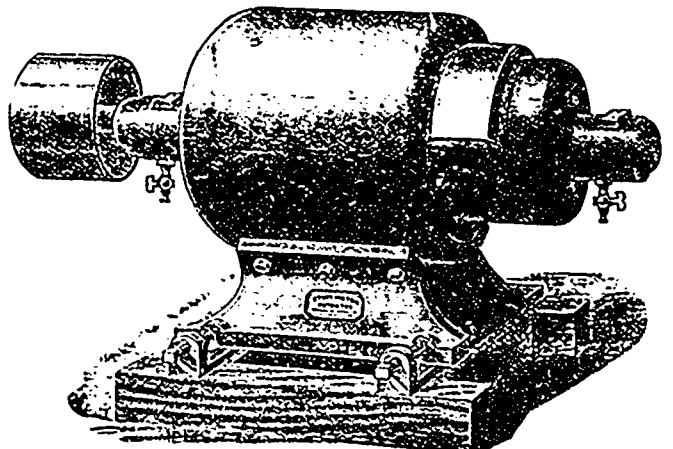
The Storey Motor and Tool Co.

JOHN STREET NORTH, HAMILTON, CAN., AND PHILADELPHIA

The following are some of the advantages for the Storey Motors and Dynamos:

- Complete protection from dust, dampness and external injury.
- Highest Efficiency.
- Slow speed combined with lightness and compactness.
- Absolutely sparkless, even under wide range of load.
- No External Magnetism.
- No undue heating when running continuously under full load.
- Good design—mechanically and electrically.

The Storey while it rivals every other direct current motor made any where, has no competitor for direct driving and special purposes where the closed in features, efficiency, sparklessness, speed, size and weight, are taken into consideration.



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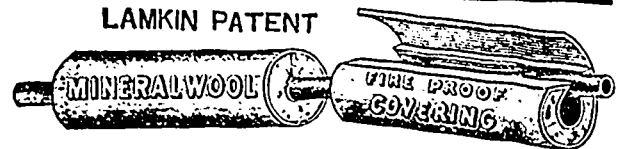
JOHN ABELL & CO., Toronto:

PORT ROWAN, January 2, 1896.

Dear Sir, I enclose you cheque to balance. We were very much obliged to Mr. Petch for the
draft for Buckwheat just to hand. The results are very satisfactory as to the work we are doing, and
everything in connection with the repairs.Wishing you the compliments of the season, I remain, yours truly,
(Signed), J. L. BUCK.**LATEST IMPROVED ROLLER MILL MACHINERY, ENGINES, BOILERS,
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For Steam Pipes, Boilers, etc.,

A Large Saving in Fuel is made.**Radiation and Condensation Prevented.****Steam Carried Long Distances Without Loss of Power.**We manufacture our own Mineral Wool and can put you on the ground floor in regard
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2376.****Wm. KENNEDY & SONS, OWEN SOUND,
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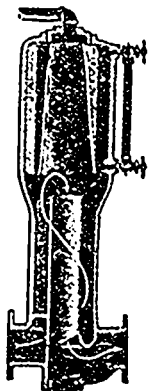
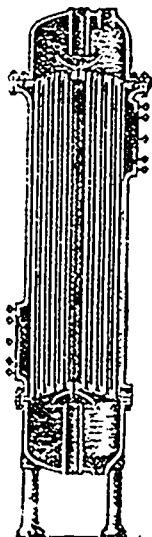
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All Sizes—50 to 5,000 h.p.

Stratton SeparatorsSeparates entrained water from steam and ensures delivery
of DRY STEAM to Engine. Doing away with
that fruitful cause of accidents—
WATER IN THE CYLINDER.

we need only refer to the engraving of an emery grinder. The appearance of this tool will readily suggest to the mechanical mind the case in which this motor can be applied direct to machine tools, wood-working machinery, fans, and in fact nearly every class of machinery.

The advantage of a direct driving electrically equipped plant is economy both in initial construction and in maintenance, as it is a well known fact that a properly constructed generator will furnish the power exactly as required. As the tools are shut off the economy goes direct to the coal bin, and power is not absorbed by belts, poorly aligned boxes and consequent friction. It would seem, therefore, that a motor having the advantages claimed for the Storey should have a large field of usefulness.

The manufacturers of this motor are the Storey Motor and Tool Co., of Philadelphia and Hamilton, Canada. Correspondence should be addressed to the Canadian factory.

HARDING'S NEW CARBONIZER AND DRIER.

Messrs. Harding & Son, Simcoe, Ont., operate an extensive shoddy mill at that place, which, The Reformer says, will in the near future be, perhaps, the largest concern of that character in Canada. They have just invented a new machine, which is now being patented, that will, it says, give them a great "cinch" in the business. It is a combined drying and carbonizing machine.

The claims for this patent are:

"A machine to dry and carbonize together; it is built to revolve; it is square and of sufficient area to prevent the wool or rags from rolling and getting entangled; it has attachments to cause the wool and rags to be continually moving, loose and open, thus allowing the steam therefrom, to be constantly and quickly drawn from the machine; it is built with cast iron ends and wrought iron sides; it is heated by steam coils tested to 200 lbs. pressure; there are two gudgeons or hollow shafts six feet long and ten inches in diameter inside and twelve inches outside, through which the steam enters by a revolving coupling; the steam condenses and discharges through the shaft and a revolving coupling at the other side.

The machine consists of a large iron box or pan, nine feet long and seven feet square inside. It is connected with an iron retort, five feet long and two feet square. The retort when not used for mak-

ing gas for carbonizing the rags, is utilized as a hot air box for drying. The hot air enters through the same shafts as those used for the steam and at the opposite side of the machine is a twelve inch fan which creates a current for the hot air and also draws off all steam caused by the rags sweating in the process of drying. Inside the box are several "agitators" with large comb-like teeth or hooks of steel which keep the rags separated and thus with the large area of the box the rags are practically continually floating in space, doing away with all the trouble formerly caused by the goods bunching together and rolling up in balls.

Chlorine gas manufactured from sulphuric acid and salt is used for carbonizing the rags and it not only thoroughly disinfects them, removing any germ of disease that might be in them, but also destroys and removes all vegetable matter, burrs in the wool, straw, cotton, etc. All foreign matter is eliminated and nothing but the pure wool remains.

Woolen rags only are used and they are received from all parts of Canada, the United States, England and Scotland. They come in large bales and are first put into the drying and carbonizing machine described in the foregoing, and are then assorted into the various grades according to quality. From here they go into the duster where they are shaken, dusted and cleaned thoroughly. The picker next receives them. This is fitted with steel teeth on cylinders which tear the rags apart and reduce them to a coarse woolly state. The carder finishes the job, combing out all coarseness, and what was a short time before, just a bundle of old rags, emerges in the shape of wool, with all the appearance of the original article. It is then packed in bales and shipped all over the continent, the finer grades going to American manufacturers and the coarser grades to the Canadians. There are forty varieties or grades of shoddy manufactured there and it not only goes to the makers of cloth, flannels, and hosiery but to other shoddy firms who are unable to produce the carbonized material.

The reputation of Messrs. Harding for this class of work has spread all over the country, and although the capacity of the mills is one million pounds a year, they are unable to keep up with the demand. At the present time they are behind in their United States orders alone, over 100 tons. A considerable portion of the business is the carbonizing of rags for other shoddy manufacturers and they have among their customers for this class of work, one of the largest firms in the world, F. Muhlhauser & Co., Cleveland, O.

BRUNNER, MOND & CO., (LTD.), Northwich, Eng.

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GUARANTEED 58 DEGREES

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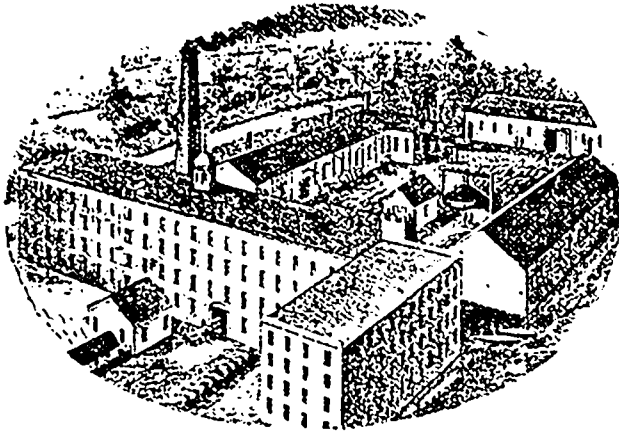
Sole U.S. and Canada Agents for

Leopold Cassela & Co., Frankfort-on-the-Main, Germany.

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Lyons, Franco.

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Weston Woolen Mills.



This valuable Seven Set Mill, including 25 acres of Land, with 10 dwellings, etc., is now offered **FOR SALE**. It contains seven sets of 60 inch manufacturing Cards, 2,500 Spindles (Tatham Mules), 45 Broad Looms, and all other machinery to match. It is advantageously situated on the banks of the Humber River, and has an excellent water power.

Weston is a Suburb of Toronto, on the Main Lines of the Grand Trunk and Canadian Pacific Railways, having also an electric car service direct to Toronto.

As this fine property is offered at very reduced figures an eminently favorable opportunity is afforded to intending purchasers.

I also have for sale, one set of 48 inch Cards, 2 sets of 60 inch Cards, 4 Tatham Mules, 20 Broad Looms, 2 English Gigs, 2 Chinchilla Machines, Eight 60 inch Shoddy Cards, 2 Fulling Machines, 3 Shoddy Pickers, 1 Rag Duster, etc., etc.

GEORGE REID, 118 Duke St., Toronto.

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from November 2 to November 13, 1895.

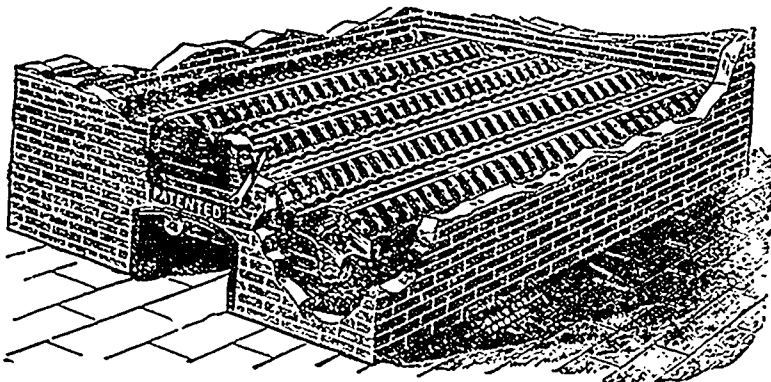
Information regarding any of these patents made be had on application as follows:—

Fetherstonhaugh & Co., Bank of Commerce Building, Toronto.
Ridout & Maybee, 103 Bay Street, Toronto.
C. H. Riches, Canada Life Building, Toronto.
A. Harvey, Central Chambers, Ottawa.

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

- 50,425 Wagon, Frank S. Ingoldsby, Denver, Col.
50,426 Furnace, John Jamieson, Truro, N.S.
50,427 Alarm clock for doors and windows, Joseph F. Graybill, York, Pa.
50,428 Tiles, Christian L. Luders and George Carl Martin Luders, Hamburg, German Empire.
50,429 Carburetor, Eugene M. Wescott, Hampton, Ia.
50,430 Elevator, John W. Gentry, Oakland, Cal., Jeremy Jacob, Fruitvale, Cal., and Octavo Marchand, Golden Gate, Cal.
50,431 Telephone system, Alfred C. Brown, Lewisham, Eng.
50,432 Bolt threading machine, Michel D. Luehrs, Cleveland, O.
50,433 Bolt cutter, Michel D. Luehrs, Cleveland, O.
50,434 Cooler for water, etc., George F. Barron, and Donald McPherson, Palmyra, N. Y.

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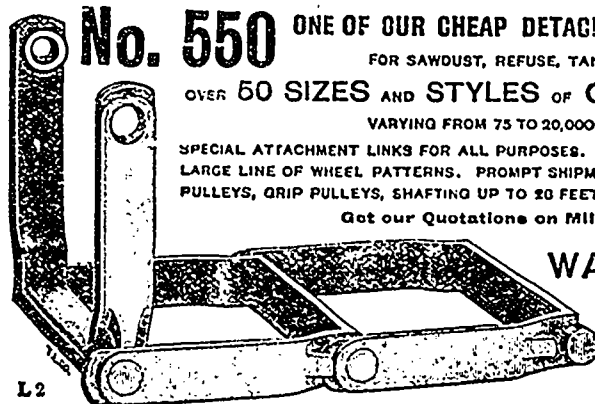
THE HEESON ROCKING GRATE BARS

Will be placed on trial under any boiler in the Dominion for thirty days, at the end of which time, if they are not satisfactory, we will remove them and return the old bars to their place free of expense.

—(c)—

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L2

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FOR SAWDUST, REFUSE, TAN BARK, ETC.

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

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

Yarns of all kinds for Manufacturers' use.

Twines, Lampwicks, Webbing, etc.

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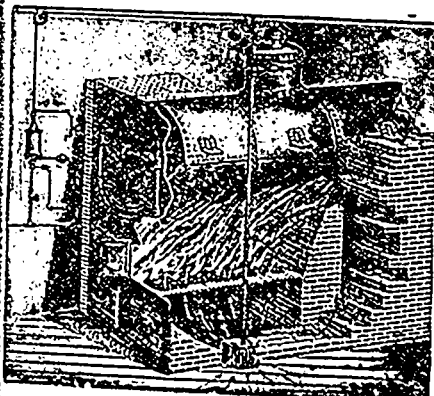
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IMPROVED
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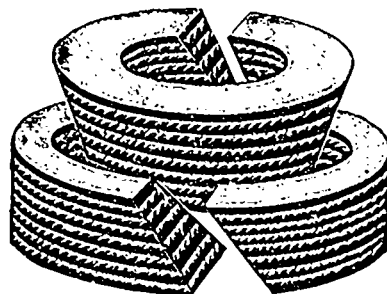
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In ordering this device
be sure to give diameter
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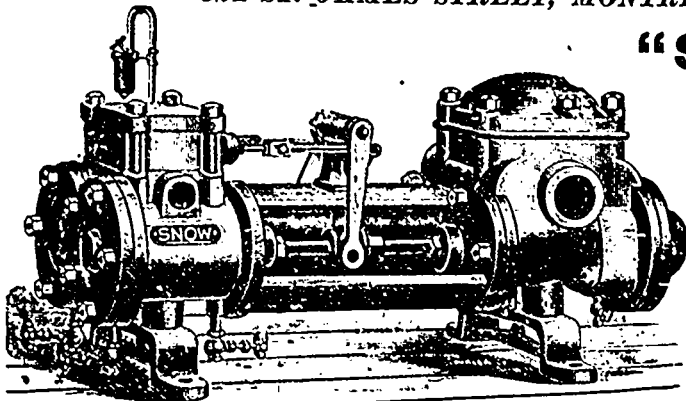
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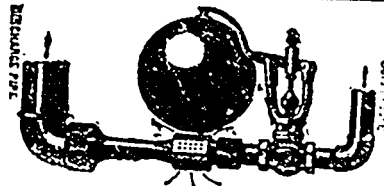
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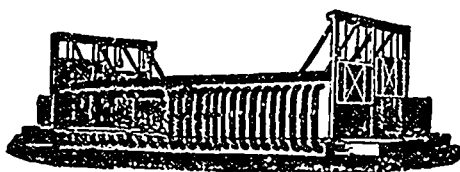
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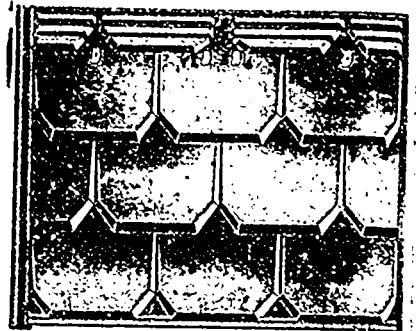
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- 50,436 Bottle stopper, Alfred Coxon, Chicago, Ill., George Coxon, and John H. Stone, Toronto.
- 50,437 Mail-marking machine, Charles F. Brown, Reading, Mass., assignee of Martin Van Buren Ethridge, Everett, Mass., and Henry E. Waite, Newton, Mass.
- 50,438 Amalgamator, The Midas Gold Saving Machinery Co., assignee of Alexander C. Rumble, San Francisco, Cal.
- 50,439 Gang plough, The Cockshutt Plow Co., assignee of George Wedlake, Brantford, Ont.
- 50,440 Neck-yoke centre, Anna Pearson, assignee of Swain Pearson, Oklahoma, Territory of Oklahoma.
- 50,441 Mechanism for operating pumps, W. M. Leathley & Co., assignee of Meredith Leitch, Richmond, Va.
- 50,442 Method of and mechanism for removing scales from boiler tubes, etc., Wm. H. Tebeau and Wm. J. Baker, Oswego, N.Y.
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- 50,464 Blue liquid composition, Jacques F. Devos and Wenceslas Paquette, Montreal.
- 50,465 Process and apparatus for generating gas, Thos. L. Willson, New York, N.Y.
- 50,466 Illuminating gas, Thos. L. Willson, New York, N.Y.
- 50,467 Dehydration of illuminating gas, Thos. L. Willson, New York, N.Y.
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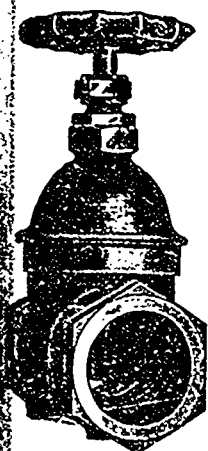
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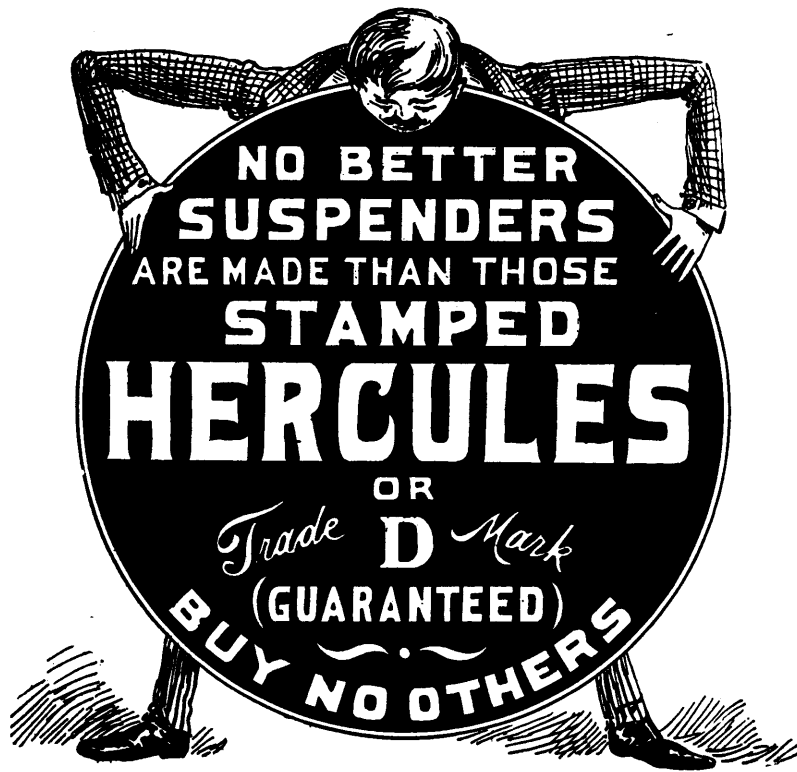


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- 50,479 Water bar and grate, Jas. Reagan, Philadelphia, Pa.
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- 50,481 Sash lock, etc., George H. Yost, New York, N.Y.
- 50,482 Lemon squeezer, Jos. E. Cahill, New York, N.Y.
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- 50,489 Folding bicycle, George G. Prentice, New York, N.Y.
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- 50,492 Apparatus for ventilating and cooling cars, Sam. Hughes, Lindsay, Ont.
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- 50,501 Elastic bed plate, Paul Knoch, Adlerskof, Prussia and Germany.
- 50,502 Sink, Wm. B. Malcolm, Toronto.
- 50,503 Sink, Benjamin F. Ford, New Castle, Me
- 59,504 Castor, Angelica Hofheimer and Laura Hofheimer, Brooklyn, N.Y.
- 50,505 Churn, Wm. Deacon, Marmora, Ont.
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- 50,518 Curtain stretcher, Wilhelm Niemand, Newport, Ky.
- 50,519 Clevis, W Irving Cormany, Kansas City, assignee of August Morganfield, Ogden, Kan.
- 50,520 Subsoil attachment for plows, Theodore Woodard, Garland, Kan., and Robert Irwin, Fort Scott, Kan.
- 50,521 Aerial bicycle and track, Arthur W. Crossley, Boston, Mass., and John McCormack, Brookline, Mass., assignees of Willard H. Gilman, Boston, Mass.
- 50,522 Permutation lock, Stefano Bozano, Boston, Mass.
- 50,523 Washing machine, Johnson M. Grover, Toronto.
- 50,524 Brick, Stephen I. Adams, South-end-on-Sea, Eng.

- 50,525 Bedstead, Edward J. Barcalo, Buffalo, N.Y.
- 50,526 Sash balance, Edward F. Smith, Rochester, N.Y.
- 50,527 Electrical conductor, The Electric Bell and Resistance Co., Newark, N.J., assignee of George F. Atwood, Orange, N.J., and J. W. Aylsworth, Newark, N.J.
- 50,528 Manufacture of wood pulp, The National Patent Box Co., Chicago, Ill., assignee of Edward Nelson, Nausau, Wis.
- 50,529 Construction of scrap piles for rolling, John H. Poole, St. John, N.B.
- 50,530 Plate for secondary voltaic batteries, The Chloride Electrical Storage Syndicate, Clifton Junction, assignee of John G. A. Rhodin, Clifton Hall, Eng.
- 50,531 Bicycle, Cora A. Slocumb di Brazza Savorgnan, assignee of Detalmo di Brazza Savorgnan, Rome, Italy.
- 50,532 Automatic telegraph machine, The World Flash Co., Chicago, Ill., assignee of Chas. Elmer, Oak Park, Ill.
- 50,533 Machine for trimming boot and shoe uppers, Elmer S. Harris, Haverhill, Mass.
- 50,534 Shoe lace fastener, Chris. J. Johnson, Gloversville, N.Y.
- 50,535 Lawn mower, Rowley K. Ortt, Norristown, Pa.
- 50,536 Bob-sleigh, Andrew A. Smith, Hotchkiss, Col., and Wm. R. Gale, Delta, Col.
- 50,537 Sliding door lock, Wm. E. Johnson, and Merrill M. Cooney, Coon Rapids, Ia.
- 50,538 Machine for upsetting arms of carriages and buggies, Donald E. McLaurin, Tiverton, Ont.
- 50,539 Fabric, Annesley Kenealy, Bushey Grove, Eng.
- 50,540 Pant-leg holder, Wm. S. Foster, Kalamazoo, Mich.
- 50,541 Process of reducing caseine in milk, Dr. Gustav Gaertner, Schulerstrasse, Austria.
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- 50,547 Vehicle attachment for stopping horses, Jos. A. Mullen, New York, N.Y.
- 50,548 Food cooker, etc., Gottlieb Schneider, Kendallville, Ind.
- 50,549 Axle bearing and hub for bicycles, Amos C. Stilson, Bradford, Pa.
- 50,550 Pneumatic tire, Philip H. Jenkins and Thos. Jenkins, Toronto.

- 50,551 Hook and eye, The Singer Safety Hook and Eye Co., assignee of Julius Berkey, Grand Rapids, Mich.
- 50,552 Dampening apparatus, The Canadian Fibre Chamois Co., Montreal, assignee of Arthur Stafford, Lancaster, Ont.
- 50,553 Mechanical stoker, Fred A. Daley, La Grange, Ill., assignee of John M. Roe, Austin, Ill.
- 50,554 Bicycle sled, Franklin Clark and Henry Cornwell, Norwich, Ont.
- 50,555 Bicycle lantern, The Hitchcock Lamp Co., assignee of John W. Bragger, Watertown, N.Y.

United States Patents to Canadian Inventors.

Since our last issue, United States patents to Canadian inventors were issued as follows, as reported by Mr. Chas. H. Riches, Solicitor of Patents, Canada Life Building, Toronto :—

- 551,380 Street car fender, Wm. J. Hinphy, Montreal.
- 551,638 Calendar, Thos. H. Hovenden, Ingersoll, Ont.
- 551,827 Machine for bending pipes, Wm. Litchfield, Winnipeg, Man.
- 551,836 Trip sling, J. W. Provan, Oshawa, Ont.
- 552,069 Watch case spring, B. Murphy, Orillia, Ont.
- 552,132 Convertible bed and fire escape, H. Marcheter, Wallaceburg, Ont.
- 552,148 Compensating organ pipe, G. W. Scribner, London, Ont.
- 552,201 Wire stretching and splicing machine, G. W. Roxburgh, St. Mary's Ont.
- 552,207 Enclosed washstand or sink, C. N. Stacey, Darlington, Ont.
- 552,241 Hay sling lock, S. G. Emerson, Tweed, Ont.
- 552,244 Picking rod, Chas. A. Gregory, Montreal.
- 552,255 Footwear, J. H. McKechnie, Granby, Ont.
- 552,553 Phase completing device, Jas. T. Sibley, Clinton, Ont.
- 552,795 Wrench, Fred P. Thompson, Fredericton, P.E.I.
- 552,842 Combined washing and wringing machine, Margaret Killen, Halifax, N.S.

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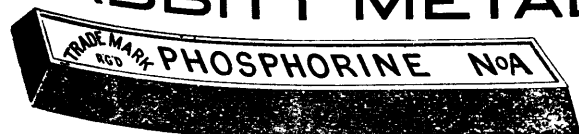
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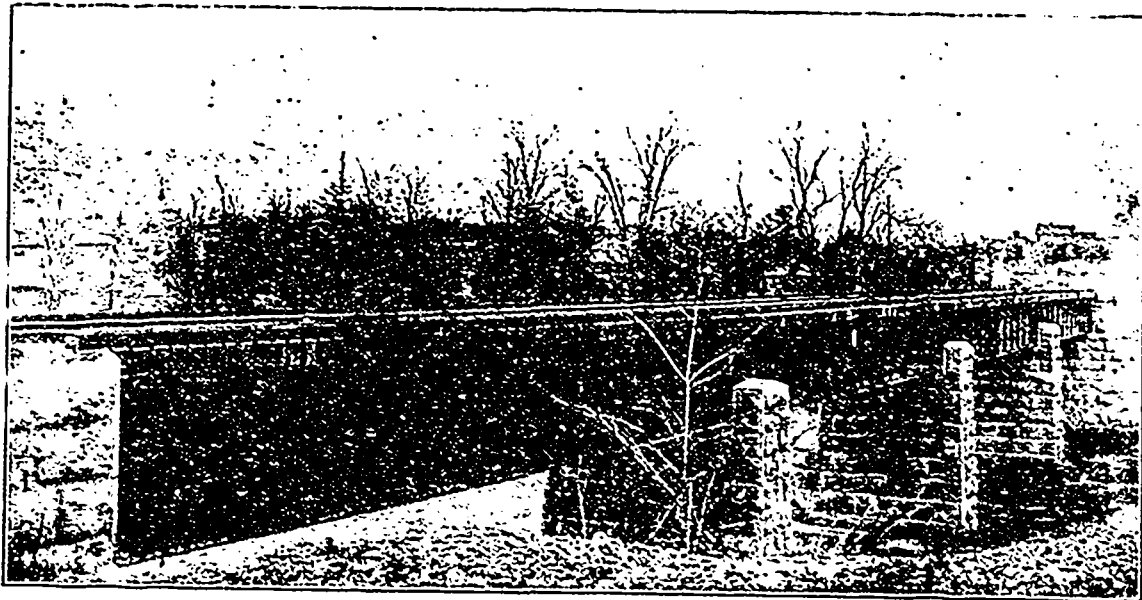
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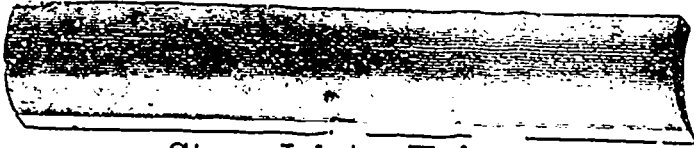
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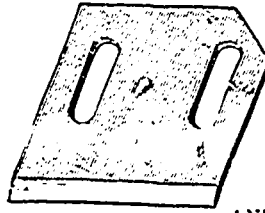


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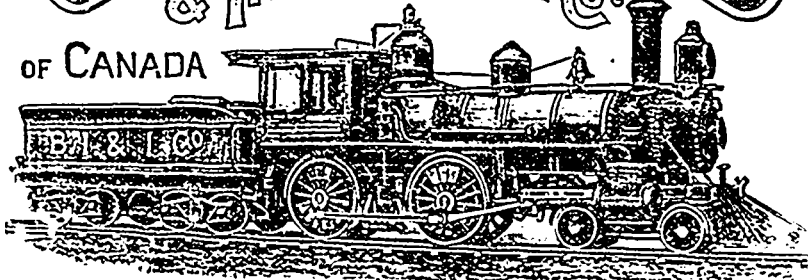
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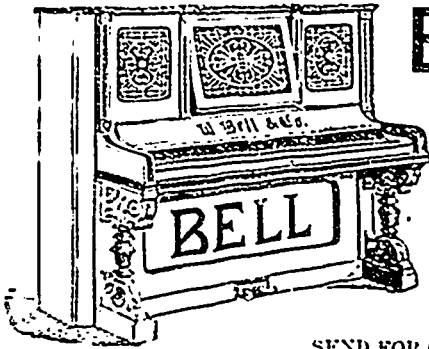
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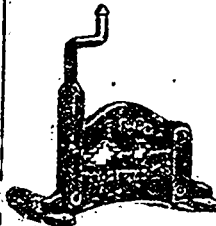
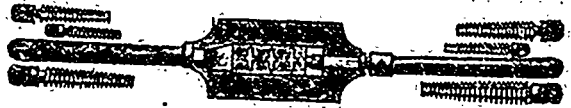
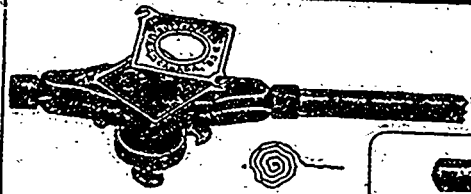
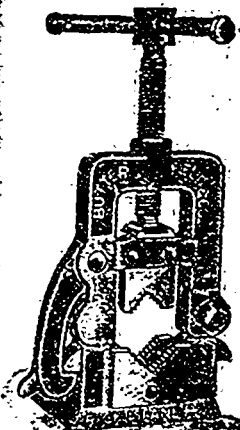


THE OBJECTS OF THIS ASSOCIATION ARE:

To secure by all legitimate means the aid of both Public Opinion and Governmental Policy in favor of the development of home industry and the promotion of Canadian manufacturing enterprises.
 To enable those in all branches of manufacturing enterprises to act in concert, as a united body, whenever action in behalf of any particular industry or of the whole body, is necessary.
 To maintain Canada for Canadians.
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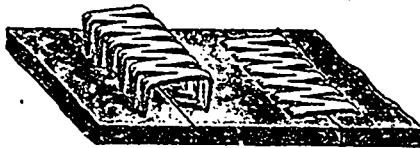
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