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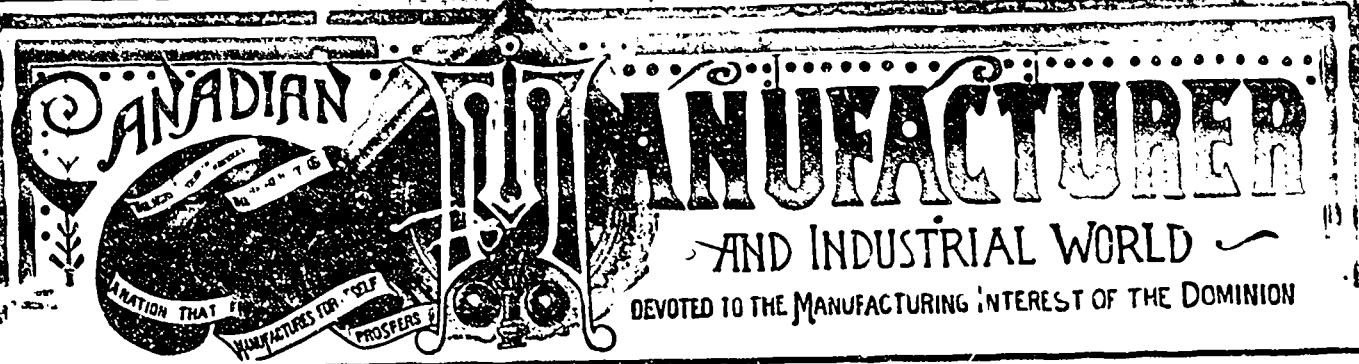
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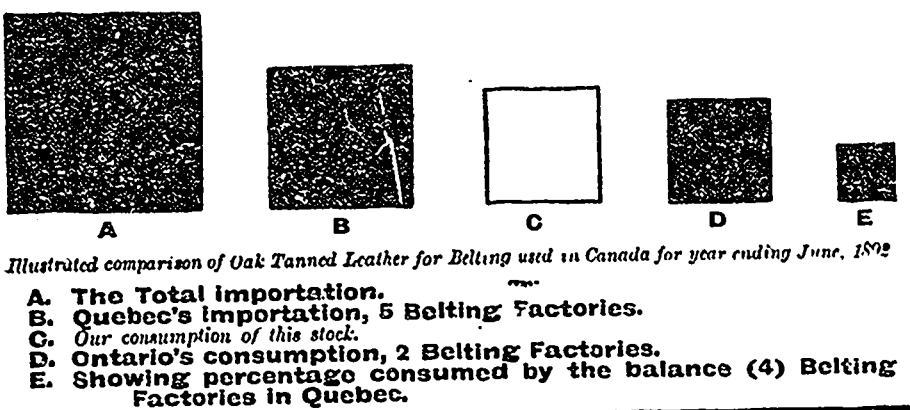
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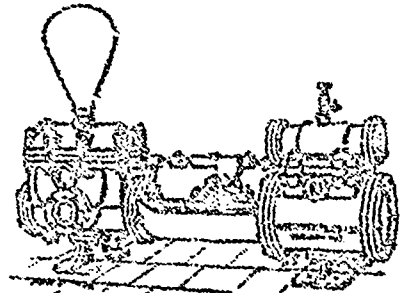
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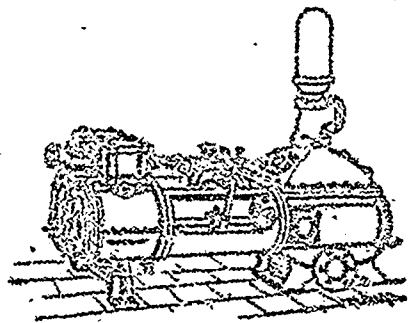
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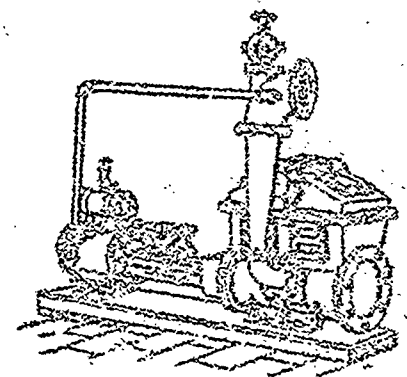


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### THE NEW DOMINION CABINET.

FOLLOWING are the names of the gentlemen who compose the new Dominion Government:—

Sir John Thompson, Premier and Minister of Justice.  
 Hon. Mackenzie Bowell, Minister of Trade and Commerce.  
 Hon. G. E. Foster, Minister of Finance.  
 Sir A. P. Caron, Postmaster-General.  
 Hon. John Costigan, Secretary of State.  
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 Hon. T. M. Daly, Minister of the Interior.  
 Hon. A. R. Angers, Minister of Agriculture.  
 Hon. W. B. Ives, President of the Privy Council.  
 Hon. John Carling and Hon. Frank Smith, Ministers without portfolios.  
 Hon. J. J. Curran, Solicitor-General.  
 Hon. N. Clarke Wallace, Controller of Customs.  
 Hon. J. F. Wood, Controller of Inland Revenue.

Canadian manufacturers entertain the highest esteem for Sir John Thompson. They look upon him as a man of irreprouchable character, who will give his best ability to the service of Canada. They believe that he is an honest and sincere supporter of the National Policy, and that none of the legislation which may be had during his incumbency of the Premiership will be adverse to that theory of government which has made Canada a manufacturing nation. They will back him up most cordially in working needed reforms and in correcting the incongruities and anomalies of the tariff; and all that they will ask of him will be to favorably construe the tariff laws as they may exist.

### TORONTO'S INTEREST IN MANUFACTURES.

IN compliance with a numerously signed call of interested citizens, a public meeting was convened by the Mayor in the City Hall last week, to see what inducements the city could hold out to induce manufacturers to locate their industries in Toronto. The meeting was largely attended, and was presided over by Mayor Fleming, who, in his opening remarks, stated that the city had been pursuing a course detrimental to its best interests by imposing onerous burdens upon manufacturers. Torontonians were now awakening to this fault, and he hoped that a result of the meeting would be to induce manufacturers to locate here. Discussion hinged on the following resolutions:

The city of Toronto, by reason of its central position, progress and prospects, possesses great opportunities for safe employment of capital in industrial enterprises.

That the rich agricultural and mineral areas tributary to the city of Toronto warrant the belief that Toronto will shortly become one of the greatest centres of trade and industrial activity on the North American continent.

That it is the duty of all citizens to co-operate in proportion to their means in developing our industrial enterprises, to encourage the location of manufacturing establishments in this city, and to assist in such measures as may be necessary to inform the industrial world as to the advantages this city presents for such undertakings.

A resolution was also passed organizing the "Citizens Industrial Exchange Association" and naming a provisional Executive Committee of the same.

Prominent citizens who addressed the meeting were, Messrs. Warring Kennedy, J. J. Withrow, Arthur Harvey, W. F. Maclean, M. P., Hamilton Merritt, George Bertram, H. A. Massey, James Beaty, J. N. Blake, J. S. Nesbitt, Thomas Davies, R. Roaf, R. W. Prittie and Robert Jaffray. The discussion took a wide range, and not only Toronto but Ontario, Canada, the continent to which we belong, the wide, wide world, and even the starry heavens were themes upon which the speakers dwelt.

The situation as we understand it is this.—Toronto is a large city possessing fine facilities for manufacturing industries, that the manufacturing industries already established here are not in proportion to the facilities presented and the demand for manufactured products, that surrounding towns and villages are being built up by manufacturing industries which might have been induced to locate in Toronto; that Toronto, as a manufacturing centre, is in a condition of dry rot, and that those interested in the welfare of the city

awakening to the situation, are enquiring what they are to do about it. From our point of view, no speaker at the meeting struck the correct key-note in anything he said.

The fact that the surrounding towns and villages are being built up by manufacturing industries which might have been induced to locate in Toronto, is evidence that, as far as such industries are concerned, the fault lies with the city, and it is for the city to correct it. The fact that Toronto does not possess blast furnaces and an immense iron industry; in view of the further fact that no such industry exists in Ontario, and only to a very limited extent in Canada, is evidence that the fault does not lie with Toronto, but with the Governments of Ontario and the Dominion. It may be that Toronto has been unwise in declining to give the necessary land upon which to erect vast iron works; but it must be remembered that Toronto has no monopoly of sites suitable for such purposes; that there are many other places equally available which might be had for the asking, and that the lack of wisdom and business enterprise on the part of Torontonians is no reason why no great iron industry does not exist in Ontario.

From what was said at the meeting, and before and since, and from the recent action of the City Council in granting certain exemptions to manufacturers, the idea might prevail that Toronto manufacturers are a lot of paupers who require special municipal favors to enable them to exist. We most emphatically repudiate the idea. If it is supposed that the giving away of the necessary area of marsh, mud and stink of Ashbridge bay for the erection of blast furnaces and steel works would be an act of charity on the part of the city, by which the people—the taxpayers—were to be robbed, it is only necessary to ask the questions, What is the place worth now? What revenue is derived from it? Will any revenue ever be derived from it in its present condition? What would it cost to make it available for the purpose indicated? Who would pay the cost? What would the place be worth to the city if extensive industrial works were erected upon it? There is no element of charity in giving away that which is of no value—it would be an exhibition of business forethought and statesmanship on the part of the City Council to give away that which is of no present value, with the certainty that the result would be the establishment of works which would imply the investment of hundreds of thousands of dollars and the employment of thousands of workmen. This would not be an act of charity. It would not call for the appropriation of civic money. It would mean the creation of wealth which would be a base for increasing the revenues of the city.

The city of Toronto makes a great mistake in maintaining systems eminently adapted for preventing the establishing of industrial works within its limits. Mimico, and Toronto Junction, and West Toronto, and Humber, and other neighboring localities are evidence of this. Scores of factories, foundries, bolt works, rolling mills, etc., have been absolutely driven away from Toronto by a system of adverse legislation against which it would be suicidal for manufacturers to contend. And business men foregather and talk about vacant houses and idle factory sites, and decreasing population, and wonder what the cause is and how the dry rot can be cured. The idle factory brings in no income to the owner, and because it is idle the value of it is depreciated, but let some manufacturer take into his serious

consideration the propriety of renting or purchasing it, and away goes the price, elevated to the skies, and if he takes it he is most severely punished by increased taxes, not only upon the building but also upon every dollar's worth of machinery he puts in it, and upon every dollar's worth of materials consumed or produced in it. No wonder the wise manufacturer steers clear of Toronto.

There are other things that strike him quite as hard or even harder than this. He might be able to stand this outrageous taxation if it were only equally and equitably apportioned. But it is not. In examining the assessment books he discovers that the value of taxable land in the city of Toronto at this time is \$85,230,000, and of land exempt from taxation \$12,400,000, and he wants to know why a seventh of the land value of the city is exempt from taxation, and why the balance has to bear the entire burden. He looks further and discovers that the value of taxable buildings amounts to \$53,339,000, and of buildings exempt from taxation \$10,754,000, and he wants to know why a fifth of the wealth of the city invested in buildings pays no taxes, while the balance has all the burden to bear. His conclusion is that Toronto is a good place in which not to invest in a manufacturing industry. And still business men foregather and wonder why factory sites are not in demand, why mechanics' houses are vacant, why population decreases, why dry rot exists. The manufacturer is no pauper; He does not care to beg for special privileges. All he wants is a fair chance; but he finds that no fair chance can be enjoyed in Toronto until taxes are equalized and the unjust burden of the inequality removed from those who would invest their capital and give employment to labor. The city of Toronto votes large sums of money to maintain scholarships in universities, and it exempts universities and churches from taxation; but not manufacturing industries. The Province of Ontario does the same thing. Money wrung by unjust taxation from manufacturers goes to support institutions of learning to which the sons of manufacturers, and the sons of the working classes cannot gain access. Toronto can never expect to witness a different condition of affairs until our method and system of taxation and exemption is revised and equalized. †

#### THE RIGHT SNAP.

At the recent meeting of citizens of Toronto to discuss the causes of the prevailing dry rot in local manufacturing industries, and to suggest ways and means by which this city might be made to hum and boom under the influence of multiplied industrial pursuits, Mr. W. F. Maclean, M.P., stated that a great area of depression existed, not only in Canada, but all over the world; one of the reasons for which was that the area of land under cultivation had increased faster than population; that in Canada the period of railroad construction had about reached its limit, and that in Toronto it was about time to increase the number of our manufacturing industries. He alluded to the fact that the Canadian Pacific Railway had been built with rails manufactured outside of Canada; and thought it a shame that the civic and other buildings being erected in Toronto were equipped with girders made in Buffalo. They should have been rolled in Toronto, and he wanted both the

Dominion and Ontario Governments to adopt a policy that would make an iron manufacturing industry a success. "We have everything in this country," said he, "except a policy, to give us an iron industry. If the protection we have is not enough let it be higher. Let the Ontario Government do its share."

The meeting at which Mr. Maclean made these remarks was called to consider the question affecting manufacturing industries generally, but the rallying point and most important feature of it was around the question of the production of iron in Canada.

The situation is this:—The consumption of iron and iron products, including steel, in Canada, is, probably, more than 600,000 tons per year—the production of iron and steel from native ores only about one-tenth that quantity. Under most advantageous conditions we have but a few iron producing furnaces in Canada—in Nova Scotia and Quebec—and there are none in Ontario or any other Province. Why this is so is no mystery or secret. We know that we have deposits of practically inexhaustible extent of as high grade iron ores as are to be found on the continent, and that the iron produced from these is all that is to be desired. The iron manufactured in Quebec is consumed chiefly in making car wheels; that in Nova Scotia for making gas and water pipe and for general foundry purposes; and we have the assurance of one of the most prominent manufacturers of heating apparatus in Ontario that the iron produced at Ferrona, N.S., is better for the purposes of that business than any Scotch or American iron brought into this country. But while Canadian iron is of such excellent quality, and while there is such a large demand for iron in Ontario, it may be asked why no iron is made in this Province, and why the industry generally is in such a wretched condition. The protection, which the tariff affords the industry, is \$4 duty per net ton upon imported iron, and a Dominion bounty of \$2 per ton upon all iron made in the country from native ores. With such a large demand for consumption, it might seem that this encouragement was enough to establish the industry on a basis which would approximately supply the demand, but that it does not is sufficient to show that the encouragement is not extensive enough to effect the end. In fact, the whole iron and steel schedule of the tariff needs revision; and we suggest that Mr. Maclean and all other members of Parliament, who uphold protection, put themselves in close touch with the manufacturers and thus discover where the trouble is which prevents the development of the Canadian iron industry. Mr. Maclean thought that it was not at all to the credit of Canada that the Canadian Pacific railway should have been built with rails not made in this country. In our opinion this was one of the greatest and gravest errors made by the Government when promoting this great enterprise. A tithe of the wealth bestowed upon the great railway would have sufficed to have developed mines and erected works for the manufacture of iron and the conversion of it into steel rails. To have done so would have made Canada of infinite more importance than she is to-day. It would have given steady and profitable employment to millions of capital and thousands of workmen, and although, as in the United States, as shown by Mr. Maclean, the period of exten-

sive railroad building has about reached its limit, yet, as in the United States, the steel plants which would have been called into existence by the demand for rails, would have found steady and profitable employment in the production of steel for agricultural and other general purposes. The very same influences that called into existence the iron furnaces, and steel plants, and rail mills, and iron manufacturing industries in the United States, and which have made that country entirely independent of the world in that respect, would have done the same for Canada. There are now some 2,000,000 tons of steel rails in use on Canadian railways, and the demand for renewals amounts to about ten per cent. of that quantity per year. Who can estimate what Canada has lost in not manufacturing that large quantity of rails? Who can fail to observe what an important industry we do not possess where the output of rails alone would amount to 200,000 tons per year? Our resources for the manufacture of iron and steel are quite as great as those possessed by the United States; and Toronto is quite as eligibly situated, as regards the industry, as many of the most prosperous iron and steel manufacturing cities in the country to the south of us. The development of the industry in Chicago within the past ten or fifteen years has been wonderful. But the advantages possessed by that city are no greater—perhaps not so great as those possessed by Toronto. Chicago's supplies of ore are drawn from a region more distant than from there to Toronto; and Chicago's source of fuel supply—Connellsville—is also farther away than it is from Toronto. And then we have unmeasured millions of tons of most excellent ores within a hundred miles of Toronto, and every other requisite within easy and cheap reach for the establishment of a vast iron and steel industry, which we do not have. Why is it? American capitalists obtain possession of our iron mines, and develop them, taking the treasure past our doors, and carrying it hundreds of miles to furnaces in their own country, paying seventy-five cents per ton duty thereon, and Toronto business men and members of Parliament foregather and wonder why such things can be.

Mr. Maclean knows why such things are, and he also knows the remedy. He knows, in the first place, that the duty on pig iron is not enough; that the term for which a bounty is offered for the production of pig iron is too short, and that no capitalists can be induced to engage in the industry under the circumstances. The remedy is for the Dominion Government to reorganize the iron schedule of the tariff, increasing the duty at least fifty per cent., and in guaranteeing the duty or its equivalent in bounty, and the bounty also for a period during which the capitalist might hope to receive a reasonable recompense for his investment and risk. Nothing short of this will ever give us a successful iron industry, and this would undoubtedly do it.

Another thing which should be done is the bestowment of a bonus by the Ontario Government upon the manufacture of iron in Ontario from Ontario ores. Of late there has been much talk about the formation of a company to erect iron furnaces and steel works in Toronto; but for the reasons herein suggested this scheme has not materialized, nor will it ever materialize under existing circumstances. Toronto capitalists may desire to see their city become a great iron and steel man-

ufacturing contro, but never a dollar will they ever invest in such an enterprise until they have the necessary assurance that the fiscal policy, under which it might be called into existence, will be continued a reasonable length of time.

If the business men of Toronto will demand certain things—and obtain them—iron and steel works would very quickly materialize; and if the conditions prevailed, not only Toronto but other places in Ontario would become smoky and noisy from the belching of furnaces and tall chimneys and the clamor of industrial works. These requisites are: an increase of duty on pig iron, a definite extension of time during which bounty will be paid, and the payment of bounty to the same extent by the Ontario Government as by that at Ottawa. Give us these and the iron and steel industry will soon materialize.

### WOMAN'S INTEREST IN PROTECTION.

WOMEN voted for president in Wyoming this year and Wyoming went Democratic for the first time in its history.—*Chicago Herald.*

The reason why is easily explained. A woman is far more of a shopper than a man is. She knows what it is to pay heavy taxes on the necessities of life, and she can be relied on to resist payment every time. In Canada the N. P. system of collecting taxes from one section of the community for the benefit of another and infinitely smaller section, would never have been inaugurated if the women could have voted. As it is, woman's influence, even to the extent of smuggling whenever she gets a square opportunity, is ever exerted in favor of breaking down the inequitable system. The Wyoming woman who went to the polls and voted in favor of a purely revenue tariff but followed the course that all women would pursue if they had the chance. A woman is never afraid that she will hurt herself by spending her earnings to the best advantage.—*London Advertiser.*

This means that women are naturally and intuitively free traders, and that she would favor a system which gives cheap goods because they are cheap, whether she has the means of purchasing them or not, rather than a system by which goods might possibly be dearer, with a greater or less certainty of having the means to buy. This is placing women very low in the scale of intelligence.

The beau-ideal of a fiscal policy in the eyes of the *Advertiser* and free traders generally is that prevailing in Great Britain, and if free trade bestows the boon upon women that the *Advertiser* intimates it would, certainly it should be found in that country. That it does not is evident from the story told by a postman's wife in a recent issue of the *Postman's Gazette*, a paper published in London, England. She gives an account of how her family, consisting of her husband, herself and two children, lived on 19 shillings per week, or £49 8s. per year. She enumerates as follows. Rent per week, 4s., six loaves of bread 2s. 3d.; fresh meat on Sunday, 10d., soup meat on Wednesday, 4d., vegetables 1s., butter 1s., flour 5d., rice 1½d.; syrup 1½d., tea 9d., cocoa 3d.; milk 3½d., sugar 4d.; two eggs 1½d., cheese 3d., jam 4d.; condiments 1½d.; ¾ cwt. coal 10½d., kindling 3d., oil 3d., sundries 4½d. Husband having so much walking he wears two pairs of boots per year, at 9s. 0d. per pair; repairs of same, 5s. 10d. (5½d. per week); myself, two pairs at 5s. 0d., boots for two children, 10s. 0d. per year; repairs, 3s. 10d.—£1 3s. 10d., or 5½d. per week; insurance on

children, 2d.; school fee for one, 2d.; Postmen's Auxiliary Society, 3d.; Postmen's Union subscription, 2d.; weekly newspaper, 1d. Clothing for self and two children can not be reckoned at less than £2 10s. 0d. per year, or 1s. 0d. per week. Balance ½d. This is how we have laid out 18s. 0d., my husband keeping 1s. 0d. for himself out of which he buys his own private clothes, including shirts and socks. When he can afford it he goes to the baths which costs him 3d. So you see, though we are not extravagant, we cannot save for old age or even for a holiday, and to buy other articles needed in the house we must do without something mentioned above. I am sorry to say my husband is unable to pay bus fare, whereby he is compelled to walk to and fro a long distance twice a day. He has to draw a parcel post handcart seven or eight hours a day, besides which he says he has to do sorting in the office. He has been several years employed under Government, and has had 1s. 0d. raise since the commencement of the Postmen's Union, of which I hope he will continue to be a member; and as he says, it is not only for himself but also for others who are worse off than we are. Some have more children, and are only getting 18s. per week.

It will be observed that this man's wages amounts to \$240 per year; and the *Advertiser* knows that the wages in Canada for similar services is much more than twice as much, probably \$600 or more. Now what sensible woman in Canada would vote for a condition where, although all the necessities of life are as cheap as they are in England, the remuneration for labor is so small that only two cents can be saved out of a week's salary, and that only by the closest economy? Did our contemporary ever read Hood's "Song of the Shirt?" Does it know what the slums of London are?

### HOMESTEAD.

EVER since the lamentable Homestead affair it has been a favorite theme of free trade orators and newspapers, and also of mugwumps, who affect to walk upon the clouds, and to view the affairs of this mundane sphere from an astral standpoint, to ascribe whatever troubles arise between capital and labor to an inclination and desire on the part of capital to oppress and wrong labor, and that in engaging in such disreputable business the financial policy of the country, which gives tariff protection to home manufacturing industries, is an accessory and adjunct. They admit that the supremacy of the law, and its administration by the constituted authorities, is at the very foundation of all order in the state, and one of the first axioms of organized society; and they sneer at what they call the "well-worn platitude" that labor has a right to desist from work if they are not satisfied with the pay, and that capital has a right to say how much it is willing to pay for labor, and to hire such labor as is willing to work, regardless of the protests of labor organizations. They tell us that if such platitudes are intended to be in any sense a discussion of the ethical aspects of the general problem, they throw no light whatever upon it, and that this may be said of the great majority of the articles, including those by learned professors in the universities, who may have anything to say on the other side of the question, and to contend, while admitting the right of labor to organize, that the organizations have

no other means than the power of argument, or moral suasion, to effect any changes they may desire. They tell us that the defect of such contention is that it fails to look upon the subject from the workingman's point of view. Then from this point of view they deny that labor is better off than ever before, that even admitting that wages are now higher in proportion to the cost of living in the old style, workmen are at the mercy of capitalists and combines when one man, perhaps without much heart or conscience, may at his own will or whim throw hundreds or thousands of men into idleness; that the chances of rising are vastly fewer under present conditions than in former times; that under the new conditions employment is more precarious than ever before, and that nowadays the lucky few who are sure of employment the whole year round are the exception, not the rule. They sneer at the assertion that it is wrong and anarchic for labor organizations to do all in their power to prevent others from stepping in to take their places when they have entered upon a struggle, at great cost and risk, to secure what they claim to be but simple justice, or less than justice, from the capitalist; and claim that the non-union laborer who steps into the vacant place of a union striker, steps into a place which has been made what it is by the struggles and sufferings of the unionists. They tell us that were the unions to be broken up, and each workingman left to do the best he could, on the principle of the non-union workman, wages would speedily be brought down to starvation point, where the last state of labor would be worse than the first; that, in short, society is even now in the midst of a great industrial evolution, which may at any moment become a revolution, though the unions are doing what they can to effect it "by peaceful methods."

When such discussion is rife, it is better to look at the whole question fairly and squarely. Perhaps it is a fact that the old political economy is obsolete, and that a new system must be discovered. But it is not the part of wisdom to discuss the situation in a spirit of acrimoniousness, where one side assumes the characteristics of saints, angels and holy martyrs, assigning the other side to the condition deserved by devils. Supposing that the old political economy is obsolete, and that it is desirable that a new order of things should be inaugurated, such "peaceful methods" as were resorted to by the Homestead strikers are not at all calculated to effect that purpose, and it is very remarkable that, as much as labor has at stake, as much as it has studied the question, and as long and continuous as have been its failures to effect any desirable result either through labor organizations or otherwise, it is very strange that workingmen have never insisted that where their brawn and muscle were invested in industrial pursuits as against capital, they have not asked that the profits of the business be divided between labor and capital on perpendicular lines, instead of horizontal, as now generally practised. Criminalization and recrimination have been tried to a fair conclusion, and yet the question is unsolved. Riots and bloodshed, murder and the demolition and destruction of property do not solve it. Stringing men up by the thumbs, and indictments for treason do not decide it, and the execution of the law and the punishment of the violators of it leave the community in a more unhappy frame of mind than before. The "right"—whatever that may mean—is not always on the one side and the wrong

on the other, and the sooner labor and its fool friends discover this fact, and act upon it, the better for all concerned. Lasting peace, coupled with warm friendship, is not effected while the parties to it write contracts and agreements with the points of daggers, and in the light and glare of incendiary fires, neither does confidence and brotherly love prevail on such occasions. The antagonism has been existing long enough. The experiment of it has been weighed in the scale of utility and found wanting. If we live in an age of enlightenment and civilization; if we are at all removed from the barbarism of the dark ages; if we recognize the fact that the old economy is obsolete, and that a new system must be found, in God's name let us go to work with honest hearts and willing minds to discover it.

Mr. N. O. Nelson, of St. Louis, a manufacturer who has given much attention to the question, and has analysed it in the light of the Homestead incident, discussed a new system, which he thinks will meet the emergency. His idea is that some method of profit sharing would be the thing. In an article in *Employer and Employed* he shows that the sliding scale of wages offered by Mr. Carnegie to the Homestead workers resulted most disastrously, while if profit sharing had been adopted, peace and contentment would have reigned. The motive in offering the sliding scale was good. He meant to pay higher wages when he obtained higher pay for his products. There was a bed rock of selling price and a bed rock of wages. More price for products, more wages for labor. The plan was for the adjustment of wages pure and simple, the wages to vary according to the market price of products; and there was no element of profit sharing involved. Any increase of wages would be due to circumstances over which the workmen could wield no possible influence. Whether the workman did his work well or ill, fast or slow, it had no effect on the rate of pay. He was to be paid by the weight of what he produced; and as to the results and actual profits of the business, he was to have no interest. As to his output, the increase in the rate of pay per ton could have no effect on the character of the work, for when a man gives his best services he cannot be speeded up by any addition to his pay.

On the other hand, an important feature of profit sharing is that the worker's share is saved up. He does not receive it day by day, a most serious evil that surrounds the old system being the facility for spending every dollar the worker earns. Profit sharing hoards up till the end of the year, and it then offers some tangible and attractive plan of investment. The sliding scale offered the Homestead workers applied to but a small fraction of the whole force—probably less than ten per cent.—and those to be benefited by it were only the most skilled men, the mass of workers being excluded. There could be no recognition of mutuality in this; no fusion of interests, no cooperation. It applied to those who did not so much require the benefits of its peculiar working, while those who most needed encouragement—the rank and file—believing that there was nothing in it for them, would go on as before in a merely perfunctory manner; doing the least amount of work; anxious to make work for as many as possible; indifferent whether a slight disarrangement of machinery, caused, perhaps, by their own carelessness, stops the work of an army of other workers for an hour or a day; regardless of the fearful waste of fuel, oil and other materials being constantly squandered by



all around. Every improvement in machinery implied a corresponding reduction in the scale, then why should the workers welcome economical contrivances. His interest was confined to his own day's wages, and the income of his fellow-workman, or his employer's interests were no special concern of his.

The highest value of profit sharing, Mr. Nelson tells us, lies in its influence in bringing proprietor and employe together. It breaks down the wall which separates them. It teaches them that constructive co operation is better than destructive opposition. When a mutually satisfactory plan of apportionment of profits is reached mutual interest is self-evident. The tendency becomes inevitable to make the most of united effort. Every man knows that both he and every other employe can and do affect their individual incomes. Individual interest and common interest are identical; and both employer and employe know that indifference reacts upon themselves. Perhaps Mr. Carnegie erred in not adopting some liberal system of profit sharing. If he had, instead of resting his ultimatum upon a sliding scale for wages, to his skilled men he would have paid the union rate of wages prevailing in the country, and to the others the day rate current in Homestead and vicinity. For many years his industry had been prosperous, protected as it was by the tariff, and undue home competition had been prevented by a trade combination. A liberal dividend could have been paid upon wages without reducing the earnings of his capital below a rate at which an abundance of it would have gladly sought investment.

Not only are more pay and steadier work prime conditions in the safety and improvement of society, but a fuller recognition of mutual duties and equal rights is demanded. Perhaps an adoption of a general system of profit sharing will be a beginning of democracy in business through which we may find the way out of war into peace.

#### EDITORIAL NOTES.

A PROTECTIVE tariff enables an employer to pay higher wages than would be possible under free trade, while free trade compels him to pay higher wages than can be demanded under protection.—*Toronto Globe*.

Here is sweetness and light. If a protective tariff enables an employer to pay high wages, it also enables an employe to demand and obtain them. That's certain. But how can free trade compel an employer in Canada, say, to pay higher wages than under protection, seeing that he is open to the competition of the cheaper labor of other countries? The stream cannot rise higher than its source.

THE *Bulletin* of the American Iron and Steel Association says:—

Leading business and professional men of Toronto have formed a political club for the purpose of disseminating information throughout Canada in favor of annexation to the United States.

If we were to assert that Wilkes Booth and Guiteau, who murdered Lincoln and Garfield, represented the leading business and professional men of the United States, we would come quite as near stating the truth as the *Bulletin* does re-

garding the sentiment in Canada for annexation. There may be some Judas Iscariots and Benedict Arnolds in Canada, but the unerring fate of traitors will overtake them.

FLORIDA has begun to ship oranges to England. The continent to which they belonged was not enough for them.—*The Empire*.

True. But Florida could never succeed in producing enough oranges for home consumption until a heavy duty on the foreign fruit encouraged the industry to a point where there was money in it. Under free trade in oranges the United States imported about all that was consumed; under protection the home market is supplied with the home products, and Florida has begun to ship oranges to England. The continent to which they belonged was not big enough for them. So much for protection.

THE people who believe that the opening of our ports to foreign trade confers a benefit on foreign nations and injures ourselves are rapidly diminishing in numbers.—*Toronto Globe*.

This is exceedingly silly. No matter how wide open our ports may be thrown, no foreign nation would make use of them if there was no profit in it for them. On the other hand if foreign nations supply us with articles which we ourselves might produce, giving employment to our own people, of course we would be injured to that extent. The true policy is to import nothing that we can produce at home, and to export nothing that we can consume at home. We may love our neighbors, but love begins at home; and we are not required to love our neighbors more than we do ourselves.

THE blighting touch of famine is already felt by the unemployed of London, and another procession has marched from Tower Hill, this time in defiance of the police. To attribute such things to strikes and the work of agitators is like attributing the cold weather to the lowering thermometer.—*Toronto Globe*.

If such demonstrations were made in the United States the *Globe* would quickly attribute them to protectionism. Of what value is cheap food in London when the blighting touch of famine is felt by the unemployed of that city? Under free trade the products of cheaper labor in France and Germany are driving British goods out of the British market, and British workmen are parading the streets of the British metropolis clamoring for bread. The famine is not the effects of strikes for more pay or fewer hours of labor, but comes of enforced idleness consequent upon free trade.

Is not freedom to import as valuable as freedom to export? —*Toronto Globe*.

Is it not worth more to consumers of manufactured products, and of farm products also, to supply the demands of the near-by home market than it is to have to send such products abroad? If a considerable portion of the population is employed in manufacturing for the home market, the fewer there be who are engaged in producing the necessaries of life for these, and the better the prices obtained; but if those employed in manufacturing industries are deprived of their occupation, through free trade and the unrestricted importation of the products of the cheap labor of other countries, or are forced to accept just such wages as are paid to

that cheap labor, the less they will have to pay for their necessities, and the lower the prices the producers of these necessities will have to accept for them.

THE reported discovery of coal just outside the boundaries of Manitoba is the most important piece of intelligence which the wire has brought from that direction in some time. The letter of our correspondent in Saturday's issue would indicate that there is no doubt about the serviceable quality or of the abundant quantity of the fuel. The fuel question is one of grave moment for the settlers on the treeless plains of the west, and if this find turns out all that it is hoped to be it will simply be a boon of incalculable value to the whole region within its radius of supply.—*Toronto Globe*.

According to the free trade theory this would be a bad thing for Canada, for it would impoverish us by reducing the volume of our foreign trade. According to the theory of protection, however, it would be a boon of incalculable value not only to Manitoba but to the whole country. An abundance of cheap fuel means the cheapening of the cost of manufacturing, and of course the country that manufactures for itself prospers

THE American and Canadian tariffs will certainly come down. Why should not Canada have the credit of beginning the good work, instead of copying the legislation of Congress? —*Toronto Globe*.

Look out for the tumble; but those interested need not pass sleepless nights expecting the "come down" of the American tariff. Likewise the Canadian tariff. If Canada is to initiate the "come down" business, but refrains from entering upon it until the American tariff shows active signs of disintegration, many, many moons will wax and wane and wax and wane again before any preparations for beginning the work need be made. And then, when the "come down" process of the American tariff reaches the neighborhood of the Canadian tariff, it will be time enough for us to begin to "come down" too. But not till then. Let not your heart be troubled, dear *Globe*, neither be ye deceived about this "come down" business. Protection is not built that way.

A CONTEMPORARY says that by putting an embargo on the export of logs Canada could paralyse the Michigan saw mill

industry. It is doubtless true to a great extent. The McKinley tariff paralyzed the malting industry of New York State, but it has been equally injurious to growers of barley in Canada. It is clear that there is a world of truth in the theory that we cannot injure the trade of a foreign nation without injuring ourselves, but how, in common sense, have the people become filled with the belief that an injury abroad must be a benefit at home?—*Toronto Globe*.

Canada is not particularly concerned as to whether an export duty on saw logs would paralyze the Michigan saw mill industry, but she is concerned to know if such duty would benefit the Canadian saw mill industry and the country generally. If Michigan is paralyzed by a Canadian law, let her secede from that part of the continent to which she now belongs, and become annexed to Canada. There is no parallel between the logging industry and that of barley. The land that produces barley may be made to produce something else equally valuable, but when the land is denuded of timber it would be a century or more, perhaps, before it would produce a similar crop. Canada is not worrying because her fiscal policy may hurt some other nation. Her concern is to benefit her own people.

A GOVERNMENT has no right to tax the whole body of the people for the benefit of a few private individuals. At least that was the opinion given at the polls by the people of the United States.—*Canada Presbyterian*.

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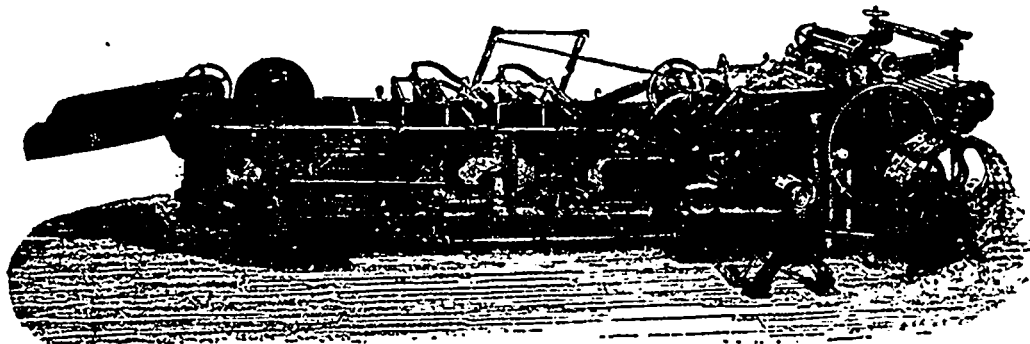
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It is the opinion which an ungerrymandered electorate would gladly give in Canada to-day if afforded a chance. The day of taxation for the sake of a few must soon end in the Dominion.—*London Advertiser*.

It is evident that the *Canada Presbyterian* knows no more about political economy as practised by all the more enlightened nations of the earth at this time, except one, than Rev. Galbraith knows about the true spirit of Christianity, judging from his fool expressions from his pulpit a few days ago regarding theatre-goers and actors. And it is just this sort of silly expressions and an intermeddling in things of which they have no correct conception that brings religious newspapers and ministers of the gospel into the profound contempt of decent people. We understand that the *London Advertiser* is a religious paper.

A PECULIARITY of the specific duty—like that upon coal oil—is that the cheaper the article the higher the rate of duty. The poor man who is compelled to use the poorer grade, pays more duty proportionately than the rich man who buys the best to be had.—*Montreal Star*.

While we are opposed to the exorbitant duty on coal oil, we are a firm believer in the efficacy of a specific or compound duty on certain articles as absolutely necessary to the success of their production in Canada. It is safe to say that the grossest frauds are practised upon the Customs, and upon the people in the importation of certain articles where *ad valorem* duties only are charged. As in the watch case incident in Montreal, about a year ago, a specific duty would have resulted in a good revenue to the Government, while under an *ad valorem* duty, the value being fixed for the occasion, the

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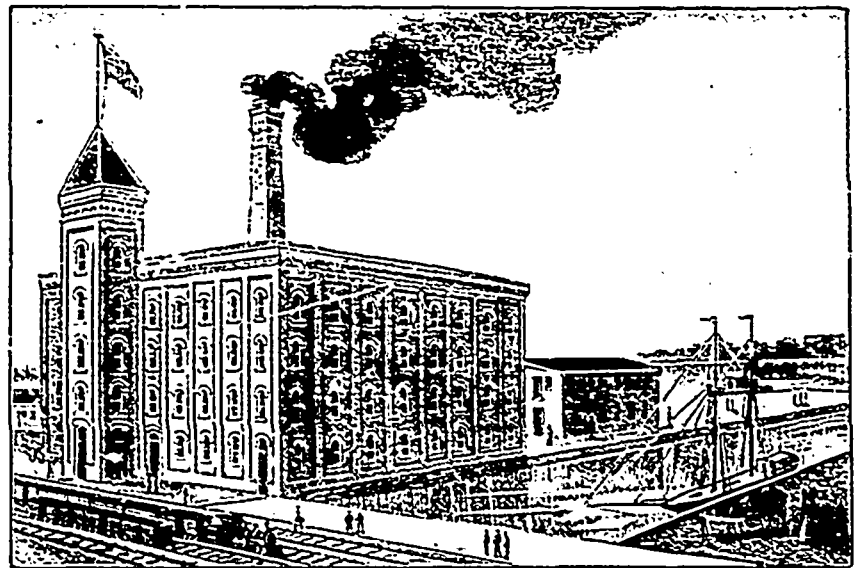
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Knitted Underwear—Socks and Hosiery in Men's, Ladies' and Children's,  
Cardigan Jackets, Mitts and Gloves,  
Braid—Fine Mohair for Tailoring, Dress Braid, and  
Linen, Carpet Laces  
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revenue was defrauded. The carpet manufacturers are very justly asking that a small specific duty be levied on certain kinds of carpet; and this is necessary to save the industry from destruction through the unfair competition of foreign manufacturers who slaughter their goods here.

It is said that Andrew Carnegie will require 1,000 tons of Canadian nickel daily for use in the manufacture of plates for marine armor. There is diversity among friends of paternal government over the proper condition in which he should be allowed to purchase it—opinions ranging all the way from a belief that he should get it in the form for which he is willing to pay for it, to the theory that he should be supplied with only finished armor plates ready for riveting. It is said that a few theorists believe that he should be supplied only with ships ready for launching.—*Toronto Globe*.

Of course the *Globe* don't know just what it talks about when it says that the American demand for nickel with which to manufacture armor plates will require 1,000 tons per day. That quantity is just five times as great as was ever produced in the United States in one year. If it had said that the demand would amount to the nickel contained in a thousand tons of nickel ore, it would have been nearer the figure. But it is not quite remarkable that neither the *Globe* nor the *Empire* nor any of the party journals of either side have ever advocated



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or denounced the imposition of an export duty on nickel contained in ore or matte. There is one sure thing about the matter, and that is that Canada is the chief source of supply for nickel, and that the Yankees cannot do without it. If we refine the article in Canada and attempt to send it to the United States we are there met with a McKinley duty of \$200 per ton, the ore and matte being duty free. If we are wise we will allow Mr. Carnegie and the Yankee navy to pay us just about that amount - \$200 per ton - export duty on all the nickel contained in the ore and matte they desire to take away from Canada. Impose the duty.

The *Star Almanac*, of Montreal, is just out. It is a splendid thing. Everybody should have it if they can possibly get it. It is being sent abroad in large numbers.

The January (holiday) number of *Godey's Magazine* will be one of the finest specimens of periodical literature ever brought out. The frontispiece, printed in twelve colors, from a water color painting by W. Granville Smith, illustrating the complete novel, "A Christmas Witch," by Gertrude Atherton, is a feature never before attempted. There are also many special and brilliant features in this number. Every book lover should have this issue of *Godey's*.

COLONEL A. B. ELLIS is to have a paper on "Marriage and Kinship among the Ancient Israelites," in *The Popular Science Monthly* for January. He maintains that this people once practised marriage by capture, and at one time were polyandrous. The scarcity of women which led to the latter practice was caused, he infers, by female infanticide. The tracing of kinship by the female line, which goes with polyandry and marriage by capture among other peoples, he finds also among the Israelites.

*Good Housekeeping* for December is a Christmas number, and the opening paper is from the pen of Miss Parloa, under the title of "Pretty Things for the Holiday Table." The frontispiece is a scene entitled "Popping Corn," with poetical setting; while the special papers, both those adapted to the season and such as pertain to the general welfare of the home, combine to make a number of marked excellence. This admirable magazine, "in the interests of the higher life of the household in the homes of the

world," is published at \$2 a year, or \$1 for six months, and no more acceptable gift than a subscription can be given to any housewife. Clark W. Bryan Company, publishers, Springfield, Mass.

We have received a little souvenir, illustrated in colors, devoted to the description of the business of *The Youth's Companion*, and especially illustrating its new building which is just completed and occupied. Every one who is interested in the paper will desire to see and read this bit of history concerning a favorite paper. While *The Companion* is one of the oldest papers in the country, having been started in 1827, it is one of the best and most vigorous of all our exchanges, and has attained the unequalled circulation of nearly 600,000 copies weekly. Its prospectus, containing the announcements of authors and articles for 1893, shows that the coming volume will be, if possible, better than any of its predecessors. *The Companion* aims to be a favorite in every family, and its large circulation testifies how widely it is appreciated. New subscribers sent now will receive the paper to January 1st, free, including the Double Holiday Numbers. \$1.75 a year. Boston, Mass.

The notable musical series of original waltzes, ballads and anthems, which will run through *The Ladies' Home Journal* in the year 1893, will include a set of waltzes by Strauss, and songs by Gounod and Sir Arthur Sullivan. The "Home Life of the Empress of Germany" will be the subject of an illustrated article, giving a picture of the home life of Augusta Victoria. There will also be a series of unpublished writings of Henry Ward Beecher. The Countess of Aberdeen will write on "How I Keep My Servants;" Mrs. Burton Harrison will continue her series on "The Well-bred Girl in Society," and Mr. William Dean Howells will, upon the conclusion of his serial story, "The Coast of Bohemia," written specially for the *Journal*, become a regular contributor to its pages. The great tragedienne, Ristori, will tell of "My First Years as an Actress;" Madame Christine Nilsson will give a series of suggestions upon "The Study of the Voice." Cardinal Gibbons will throw new light upon that most interesting of personages "The Sister of Charity." Among other notable contributors will be Frank R. Stockton, Susan Coolidge, Josiah Allen's Wife, Madeline Bridges, Octave Thanet, Robert J. Burdette and Mrs. Burton Kingsland. The *Journal* has made arrangement with W. Hamilton Gibson, Frank O. Small, Wilson DeMeza, Alice Barber Stephens and other prominent artists, to design a series of covers for *The Ladies' Home Journal* of 1893. The Curtis Publishing Company, of Philadelphia, publish the *Journal* for \$1 per year.

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# INVENTIONS.



This department of THE CANADIAN MANUFACTURER is devoted to the interests of inventors, of patentees of inventions, and of manufacturers of patented articles. Patents are granted in Canada for fifteen years, the Government fee for which may be paid by instalments. Arrangements have been made by which the issue of all patents by the Canadian Patent Office and all renewals and extensions thereof will be promptly noticed in this department, and a brief description thereof given. Enquiries on these subjects are invited and will receive prompt attention. No charge will be made for answers by mail when return postage is sent. Information given free regarding patent laws and the obtaining of patents in Canada, United States, Great Britain and all foreign countries. Claims for inventions, as embodied in Letters Patent, also the illustrations of them, will be inserted in this journal at moderate charges. The attention of manufacturers is specially directed to the opportunities for lucrative business which may be acquired by close observation of whatever may appear in this department.

## CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office from October 17th to November 28th, 1892, inclusive.

Information in regard to any of these patents may be had free on application to THE CANADIAN MANUFACTURER, or copies of American patents corresponding to these, where the American patent has been previously granted, can be procured through us for the sum of twenty-five cents.

NOTE.—The new Canadian Patent law has come into effect, whereby the life of Canadian patents is for the term of eighteen years. Patent numbered 39,264, and all subsequently numbered are granted for the longer term.

### MECHANICAL.

- 40,731 Stage apparatus, N. Burgess, October 17th.
- 40,735 Display hook, G. A. Moss, October 18th.
- 40,736 Box bending machine, H. Boon, October 18th.
- 40,737 Protection of steam boilers, F. G. Fowler, October 18th.
- 40,738 Grain binder, J. S. Davis, October 18th.
- 40,739 Spinning wheel, H. Lotz, October 18th.
- 40,741 Fountain pen, C. E. Browning, October 18th.
- 40,742 Refrigerator, R. A. Wilson, October 18th.
- 40,743 Miter clamp, F. W. Kedgeland, October 18th.
- 40,744 Car coupler, F. R. Brown and J. Howcutt, October 18th.
- 40,745 Lubricating cup, J. J. Briggs and A. W. Sanborn, October 18th.
- 40,746 Vending machine, K. Murdock, October 18th.
- 40,747 Dress stay, F. Crompton, October 18th.
- 40,748 Treadle for sewing machine, R. Frisbey, October 19th.
- 40,749 Fence machine, H. J. Gebhardt, October 19th.
- 40,751 Sleigh, W. C. Powell, October 19th.
- 40,752 Filtering machinery, E. Martin, October 19th.
- 40,753 Machine for cutting screws, W. S. Dorman, October 19th.
- 40,754 Wrist turning machine, O. Morel, October 20th.
- 40,756 Rug mill, A. R. Miller, October 20th.
- 40,757 Shingle machine, F. O. Wilson, October 20th.
- 40,758 Miter box, J. E. Bundy, October 20th.
- 40,759 Cultivator, Peter Hamilton Mfg. Co., October 20th.
- 40,760 Nut making machine, Elastic Nut Co., October 20th.
- 40,762 Belt fastener, F. E. Shant, October 20th.
- 40,763 Sprocket wheel, D. M. Mason and J. McKeon, October 20th.
- 40,764 Brick kiln, J. H. Thissen, et al, October 20th.
- 40,765 Movable seat for vehicles, D. M. Estey, October 20th.
- 40,766 Movable seat for vehicles, D. M. Estey, October 20th.
- 40,767 Weed exterminator, W. Oreland, October 21st.
- 40,768 Steam generator, T. F. Morrin, October 21st.
- 40,769 Roof ladder, A. N. Cameron, October 21st.
- 40,770 Tapping water, gas or other mains, A. P. Smith, October 21st.
- 40,771 Mining machine, H. Dierdoff, October 21st.
- 40,772 Composition having for their base cork in fragments of all degrees of fineness, R. G. de Vasson, October 21st.
- 40,773 Refrigerator, A. J. Dexter, October 21st.
- 40,774 Steam trap, F. A. Littlefield, October 21st.
- 40,775 Steam generator, D. Almy, October 21st.

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## PATENTS

Procured in Canada, United States, Great Britain, and all Foreign Countries.

Counsel Work undertaken in Patent Causes.

Patent Suits prosecuted before the Courts  
Validity and Infringements of Patents investigated.

Searches made. Assignments and Agreements drawn.  
Advice on Patent Laws, etc.

Head Office, Canadian Bank of Commerce Building, Toronto.

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## G. de G. LANGUEDOC, PATENT SOLICITOR,

CIVIL ENGINEER AND ARCHITECT.

Associate Member Can. Soc. Civil Eng., Member of the Soc. of An. Ita. of the P.Q.  
Room 7, (3rd floor), 180 St. James St., MONTREAL.

C. G. C. Simpson, 146 St. James St., Montreal,

EXPERT and  
SOLICITOR

## PATENTS,

Patents obtained at lowest fees, comparable with first-class practice. (25 yrs.)

- 40,776 Railway time signal, A. H. Thorp, October 21st.
- 40,777 Treating steel, W. B. Middleton, October 21st.
- 40,778 Manufacture of nuts, Elastic Nut Co., October 21st.
- 40,779 Treating leather, M. E. Howard, October 22nd.
- 40,780 Railroad chair, G. W. Wells, October 22nd.
- 40,781 Signal lantern, W. Nelson, October 22nd.
- 40,782 Spreading fertilizing material, W. T. Butler, October 24th.
- 40,783 Furnace grate, J. L. Mason, October 24th.
- 40,784 Running gears of wagons and other vehicles, J. McHoller, October 24th.
- 40,785 Cultivator, C. C. Hiestand, October 24th.
- 40,786 Folding bed, J. Rennison, October 24th.

- 40,787 Shaping tubular fabrics, D. A. Cobb, October 24th.  
 40,788 Grain binding harvester, J. S. Davis, October 24th.  
 40,789 Gas retort charger, A. Hickenlooper, October 24th.  
 40,790 Foot power for sewing and other machines, C. Nicholson, October 24th.  
 40,791 Type writing machine, Pearl Typewriter Co., October 24th.  
 40,792 Boot and shoe buffing machine, G. H. P. Flagg, October 25th.  
 40,793 Stanchion, P. Avery, October 25th.  
 40,794 Kiln, W. A. Endaly, October 25th.  
 40,795 Centrifugal pump, E. Seitz, October 25th.  
 40,796 Wrench, C. A. McIntosh, October 25th.  
 40,797 Nut-lock, T. J. Kennedy, October 25th.  
 40,798 Snow plow and flanger, R. J. McKeone and J. P. Moran, October 25th.  
 40,799 Rivetter, J. J. Kropalet, October 25th.  
 40,800 Harness for horses and other animals, H. E. King, October 25th.  
 40,802 Motor or pump, H. P. Hodges, October 25th.  
 40,803 Phototype, A. C. Ferguson, October 25th.  
 40,805 Bearing for railway car, L. K. Jewett, October 26th.  
 40,806 Mowing machine, C. Grandmont, October 26th.  
 40,807 Truck, Fox Solid Pressed Steel Co., October 28th.  
 40,808 Cigar blank, W. S. Rowe, October 28th.  
 40,809 Weaving wire mattresses, Hard Brothers & Co., November 2nd.  
 40,811 Apparatus for assisting parturition, P. McCahey, November 2nd.  
 40,812 Brake, C. C. Reynolds, et al, November 2nd.  
 40,813 Elevator door, W. E. Marlett, November 2nd.  
 40,815 Tailors' stove, A. Lundstrom, November 2nd.  
 40,816 Change maker, S. J. Taylor, November 2nd.  
 40,817 Busking mortice, F. H. Wright, November 2nd.  
 40,818 Rocket, P. Cunningham, November 2nd.  
 40,819 Telephone toll box and connection register, C. E. McCluer, November 2nd.  
 40,820 Kiln, H. Warrington, November 2nd.  
 40,821 Coin operated sight testing apparatus, B. Green, November 2nd.  
 40,822 Manufacturing curled hairs, P. Wold, Jr., November 2nd.  
 40,823 Pneumatic tire, T. Dunn, November 2nd.  
 40,824 Wheel harrow and cultivator, O. R. Baldwin, November 2nd.  
 40,825 Potato planting machine, G. Hoffmann, November 2nd.  
 40,826 Low water alarm and water and steam gauge, J. Willan, November 2nd.  
 40,827 Car truck, G. M. Brill, November 2nd.  
 40,828 Envelope, S. Cupples, November 2nd.  
 40,829 Type-writing machine, The Type-writing Machine Co., November 2nd.  
 40,830 Pipe organ, Jackson Pipe Organ Co., November 2nd.  
 40,831 Printers' chases, E. Heffelfger, November 2nd.  
 40,832 Casting of metals in ovens, W. S. Simpson, November 2nd.  
 40,833 Door check, C. H. Timms and John Day, November 2nd.  
 40,834 Saw straining device, M. Juicks, November 2nd.  
 40,835 Building of paving block, G. M. Graham, November 2nd.  
 40,836 Veneer box, J. T. Ferres, November 2nd.  
 40,837 Centre board for boats, F. M. Eaton, November 2nd.  
 40,838 Advertisement wagon, W. W. McCall, November 2nd.  
 40,839 Stone, J. T. Robbins, November 2nd.  
 40,840 Tracing wheel, S. Newman, November 2nd.  
 40,841 Oil for sore or gathered breasts, A. Bremner, November 2nd.  
 40,842 Beer faucet, F. A. Frunaviller, November 2nd.  
 40,843 Paint pot, W. B. Deeming and H. C. Puller, November 2nd.  
 40,844 Summer and winter coaster, G. Seebick, November 2nd.  
 40,845 Potato separator and cleaner, I. Waldbrook, November 2nd.  
 40,846 Mold for closed cylinder, F. X. Black, November 2nd.  
 40,847 Gate, L. T. Page, November 2nd.  
 40,848 Paper box, J. E. Baker, November 2nd.  
 40,849 Water level indicator and alarm, J. A. Fuller, November 2nd.  
 40,850 Ironing machine, The National Laundry Machine Co., November 2nd.  
 40,851 Wash basin, bath tub, etc., C. H. Moore, November 2nd.  
 40,852 Winter attachment for bicycle, F. W. Whiteman, November 2nd.  
 40,854 Nut tapping machine, C. L. Chapman and H. J. Peiner, November 2nd.  
 40,855 Fastener for window blind, G. Hees, Son & Co., November 2nd.  
 40,856 Barrel expander, P. Little and W. O. Laudback, November 2nd.  
 40,857 Horse hay rake, W. J. Risedorfel and W. Coulthard, November 2nd.  
 40,858 Boat raising and lowering device, J. Stevens and D. W. Dana, November 2nd.  
 40,859 Lawn mower and trimmer, A. Hauton, et al, November 2nd.  
 40,860 Roofing cement, G. W. Reed, November 2nd.  
 40,861 Spring motor for sewing machines, etc., R. Reichett, et al, November 2nd.  
 40,862 Level tube for surveying instrument, J. A. Brown and F. G. Weltz, November 2nd.  
 40,863 Compressor, H. C. Sergeant, November 3rd.  
 40,864 Block signal system, M. S. Conly, November 3rd.  
 40,865 Producing flat reliefs for wall ornaments, etc., P. A. Klink, November 3rd.  
 40,866 Tray for photographic purpose, A. Desborten, November 3rd.  
 40,867 Twine holder cup, W. Bentley and J. D. Fuller, November 3rd.  
 40,868 Car seat, H. A. Wheeler, November 3rd.  
 40,869 Plating clay with glass, The Clay Glass Tile Company, November 3rd.  
 40,870 Controlling the shifting action of moving water or land, G. H. Henshaw, November 3rd.  
 40,871 Window blind, A. J. Avery, November 3rd.  
 40,872 Automatic pipe coupling, J. Snyder, November 3rd.  
 40,873 Railroad tie plate, J. S. Fox, November 3rd.  
 40,874 Chimney cap, W. A. Pearce, November 3rd.  
 40,875 Stocking, W. H. Howard, November 3rd.  
 40,876 Manufacture of white lead, G. D. Coleman, November 3rd.  
 40,877 Horse collar pad, H. Doering, November 3rd.  
 40,878 Saddle for velocipede, G. S. Karn, November 3rd.  
 40,879 Tea kettle, V. C. Baker, November 3rd.  
 40,880 Producing woven fabric, W. Talbot, November 3rd.  
 40,881 Producing woven fabric, W. Talbot, November 3rd.  
 40,882 Safety gate for drawbridge, W. Goddard, November 3rd.  
 40,883 Gate latch, H. C. Huffman and D. Hogan, November 3rd.  
 40,884 Sleigh, A. F. Pure and H. Lieber, November 3rd.  
 40,885 Netted wire fabric machine, A. L. & D. S. Ketselman, November 3rd.  
 40,886 Car coupling, J. A. Wiswall and B. Palmer, November 3rd.  
 40,887 Corking machine, The Deka Vergne Bottle & Seal Co., November 3rd.  
 40,888 Seal stopper, The Deka Vergne Bottle & Seal Co., November 3rd.  
 40,889 Street car, J. A. Mehling and S. D. Dodge, November 3rd.  
 40,890 Coloring indiarubber balls, G. L. Hille, et al, November 4th.  
 40,891 Enamelling sheet metal ware, H. Claus, November 4th.  
 40,892 Enamelling sheet metal ware, H. Claus, November 4th.  
 40,894 Picking motion of looms for weaving, J. & A. Moss, November 4th.

- 40,895 Combined sofa and bed, D. L. Oulton, November 4th.  
 40,896 Carpet sweeper, W. H. Pickett, November 4th.  
 40,897 Rock drill, H. G. Williams, November 4th.  
 40,898 Pneumatic tire, T. B. Jeffery, November 4th.  
 40,900 Starting mechanism for grain binders, J. S. Davis, November 4th.  
 40,901 Rail joint, R. J. Colvin, November 4th.  
 40,902 Stove and furnace combined, C Brandt, November 5th.  
 40,903 Car coupling, G. R. Lewis, November 5th.  
 40,904 Centrifugal separator, C. G. P. De Laval, November 5th.  
 40,905 Car brake, A. Campbell, November 5th.  
 40,906 Brake mechanism, W. S. Adams and J. A. Brill, November 5th.  
 40,907 Car boiler, G. J. Porter, November 5th.  
 40,908 Scraper for band saw pulley, J. H. Wentz, November 5th.  
 40,909 Nut lock, W. Cockayne, November 5th.  
 40,910 Producing colors on glass surface, J. C. Duntze, November 5th.  
 40,911 Milk can cover, G. L. Flower, November 5th.  
 40,912 Concentrating apparatus, F. W. Scott, et al, November 5th.  
 40,914 Balance steam valve, G. H. Chappell and F. Tryon, November 5th.  
 40,915 Stove, Wilcox Water Heater Co., November 5th.  
 40,916 Trousers' stretcher, The Trousers Stretcher Co., November 5th.  
 40,917 Tool for removing horseshoe guard plates, G. T. Chapman and W. H. Merritt, November 5th.  
 40,918 Centering shafts, etc, S. G. Minnick, November 5th.  
 40,919 Hernia pad, C. Cluthe, November 5th.  
 40,920 Band cutter, J. P. Monnett, November 5th.  
 40,921 Vessel for petroleum, J. D. Sprunt, November 5th.  
 40,922 Treating tobacco, J. C. Frost, November 5th.  
 40,923 Scouring, dyeing, etc, woven fabrics, A. T. Clay, November 5th.  
 40,924 Enamelled brick, J. T. Rue, November 5th.  
 40,925 Bottle snap, J. Fithian, November 7th.  
 40,926 Driving belt, A. J. Gasking, November 7th.  
 40,927 Can-labelling machine, F. X. Gaudric, November 7th.  
 40,928 Fire escape, H. Friedlaender, November 7th.  
 40,929 Washing machine, H. R. Williams, November 7th.  
 40,932 Auxiliary base for stove, J. D. Rasey and F. M. Hasbronck, November 7th.  
 40,933 Typewriter, The Blickensderfer Mfg. Co., November 7th.  
 40,934 Typewriter, The Blickensderfer Mfg. Co., November 7th.  
 40,935 Pneumatic tire, Mrs. P. LaForce, November 7th.  
 40,936 Implement for digging post holes, A. E. Dowswell and J. J. Stewart, November 7th.  
 40,937 Mower, J. Wad-El-Ward and J. R. Collins, November 7th.  
 40,938 Rug mill, W. A. Parry, November 7th.  
 40,940 Gas burner, G. S. Sandford and W. A. Hill, November 8th.  
 40,941 Fruit box, J. F. Hunt, et al, November 8th.  
 40,942 Spring for doors for preventing slamming, R. Adams, November 8th.  
 40,943 Sleeping car, S. M. Charles, November 8th.  
 40,944 Cork washer for vehicle wheel, A. W. Woodward, November 8th.  
 40,945 Car coupling, J. C. Devlin, November 8th.  
 40,846 Steam log loader, F. O. Kilgore and F. S. Lane, November 8th.  
 40,947 Drier, J. Bond, November 8th.  
 40,948 Garment supporter, L. A. Topp, November 8th.  
 40,950 Vehicle axle, I. Lewis, November 10th.  
 40,951 Threshing and separating grain, A. Merver, November 10th.  
 40,852 Smoke and water projector, J. W. Boice, November 10th.  
 40,953 Manufacture of rasp, A. Weed, November 10th.

THE

# "OPTIMATES" POWER HAMMER

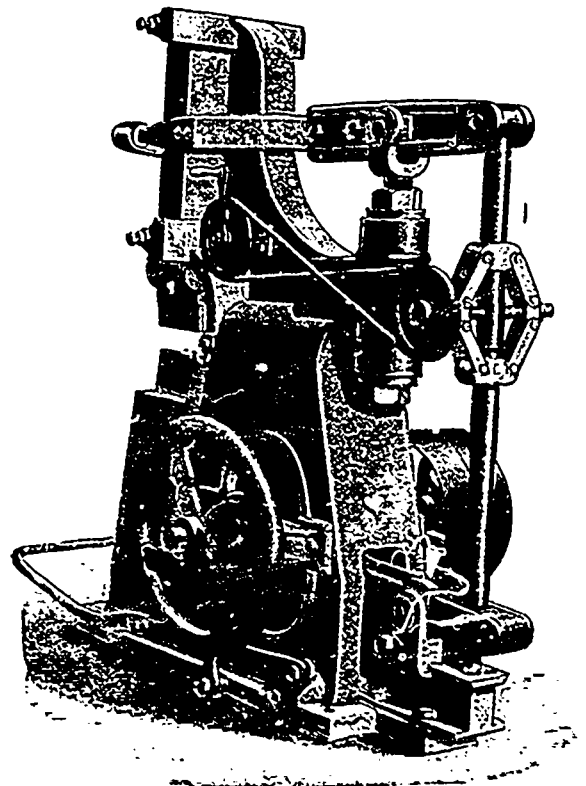
Patented in the United States, Canada, and England.

**W. H. LAW,**  
Inventor.

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**PETERBOROUGH, ONTARIO, CAN.**



- 40,954 Flow of fluids through separate chamber, J. Thomson, November 10th.
- 40,955 Heating oil stove, V. E. Randall, November 10th.
- 40,956 Dumping car, W. A. Thacher, November 10th.
- 40,957 Dumping car, W. A. Thacher, November 10th.
- 40,958 Removing incrustation from boiler tubes, J. P. Karr, November 10th.
- 40,959 Sliding window, A. F. M. Youtlen, November 10th.
- 40,960 Band cutter and feeder, E. S. Willute, November 10th.
- 40,961 Ladies' belt, J. Tynan, November 10th.
- 40,962 Shaping hollow articles, F. Moorfield, November 10th.
- 40,963 Spring support for upholstery, J. A. Staples, November 10th.
- 40,964 Glove Fastening, F. Maisch, November 11th.
- 40,965 Snow shoe, C. O. Stone, November 11th.
- 40,966 Oil can, J. B. Melloy, November 11th.
- 40,967 Bolting reel, B. F. Renibold, November 11th.
- 40,968 Rod packing, C. L. Cook, November 11th.
- 40,969 Compound locomotive steam engine, H. Monk, November 11th.
- 40,971 Slate dressing machine, J. H. Rudolph, November 11th.
- 40,972 Fuel gases, T. B. Fogarty, November 11th.
- 40,973 Block signal apparatus, T. H. Patenall, November 11th.
- 40,974 Gas for heating purpose, G. A. Watson and W. H. Laird, November 12th.
- 40,975 Roof for building, G. W. Parker and J. A. Clark, November 12th.
- 40,976 Animal trap, J. T. T. Kissinger and G. B. Strother, November 12th.
- 40,977 Molding machine, C. F. Goehring, November 12th.
- 40,978 Motor truck, J. A. Brilly, November 12th.
- 40,979 Ledger and billing book, J. E. Depue, November 12th.
- 40,980 Scrubbing machine, H. Prudhomme, November 12th.
- 40,981 Rasp, A. Weed, November 12th.
- 40,985 Cash register, F. L. Fuller and G. H. Griswold, November 14th.
- 40,987 Animal trap, M. S. Muller, November, 14th.
- 40,988 Making matches, A. E. Ellinwood, November 15th.
- 40,989 Pump Handle, C. A. Sellon, November 15th.
- 40,990 Embellishing wood, S. M. Lona and G. A. Van Buskirk, November 15th.
- 40,991 Arm rest for telephone, Wonsocket Edge Tool Co., November 15th.
- 40,992 Disk Water Meter, Thomson Meter Co., November 15th.
- 40,993 Holdback, A. L. Logan, November 15th.
- 40,994 Jack, H. J. Garbutt and G. Smith, November 15th.
- 40,995 Steam boiler furnace and grate, Wilkinson Manufacturing Company, November 15th.
- 40,996 Split pulley, Eureka Wood Pulley Co., November 15th.
- 40,997 Type writer, The Blictensterfer Manufacturing Co., November 15th.
- 40,998 Type writer, The Blictensterfer Manufacturing Co., November 15th.
- 40,999 Bechive, J. Conser and J. Housam, November 15th.
- 41,001 Making matches, A. E. Ellinwood, November 15th.
- 41,002 Bookbinder's machine, H. L. Arnold, November 15th.
- 41,003 Culinary chopper, J. B. Coe, November 16th.
- 41,004 Lamp stove, S. L. Walker, November 16th.
- 41,005 Corset, L. Schiele, November 16th.
- 41,006 Diving armor, A. Kemenger, November 16th.
- 41,007 Wheel attachment for vehicle, L. S. Browning, November 16th.
- 41,008 Stove pipe down, M. P. Faraham, November 16th.
- 41,009 Damping device for mechanical music boxes having steel tongues, G. A. Brackhausen and P. Riessuer, November 16th.
- 41,010 Condenser, T. Crancy, November, 16th.
- 41,011 Power scrutiner, M. Thiele, November 16th.
- 41,012 Bakers' oven, E. A. C. Peterson, November 16th.
- 41,013 Washing machine, C. F. Lane, November 16th.
- 41,014 Neck yoke, L. W. Rothrock, November 16th.
- 41,015 Bob sleigh, J. H. Weicher and C. W. Clark, November 16th.
- 41,017 Axle nut for running vehicle, J. L. House, et al, November 26th.
- 41,018 Heating apparatus, M. Roe, November 26th.
- 41,019 Cure for rheumatism, etc., H. Mullin, November 26th.
- 41,021 Straw elevator, J. Buchanan, November 26th
- 41,022 Paper pulp indigester, C. Curtis, and N. M. Jones, November 26th.
- 41,023 Saw mill set work, J. N. Kendall, November 26th.
- 41,024 Pipe coupling, J. N. Kendall, November 26th.
- 41,025 Asphaltum, J. A. Dubbs, November 26th.
- 41,026 Steam engine governor, G. H. Evans, November 26th.

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### Stoves, Ranges, and Furnaces

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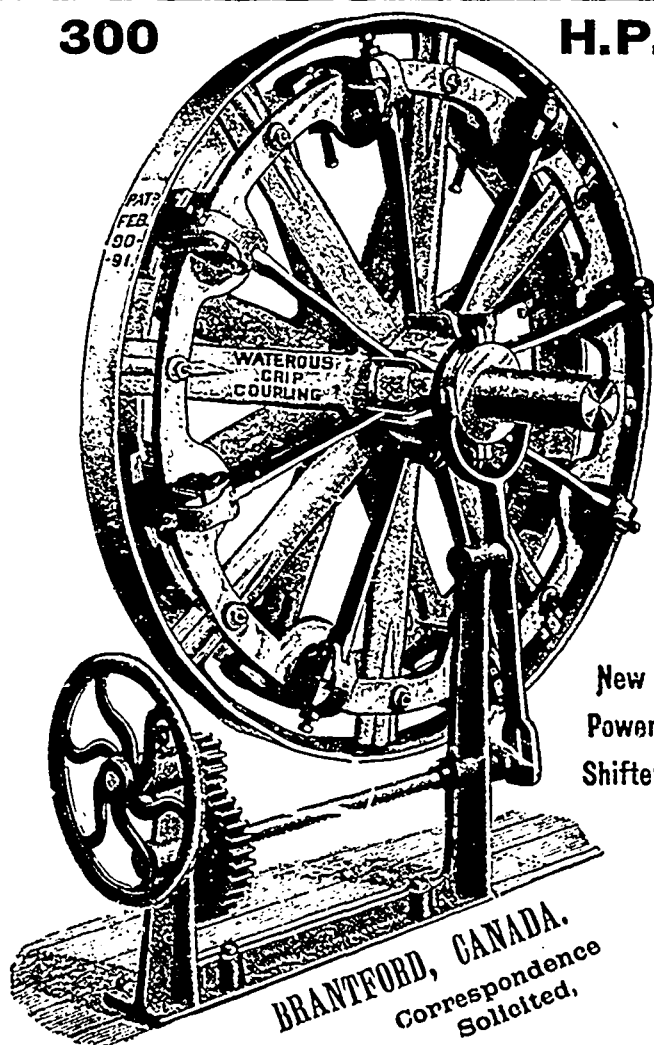
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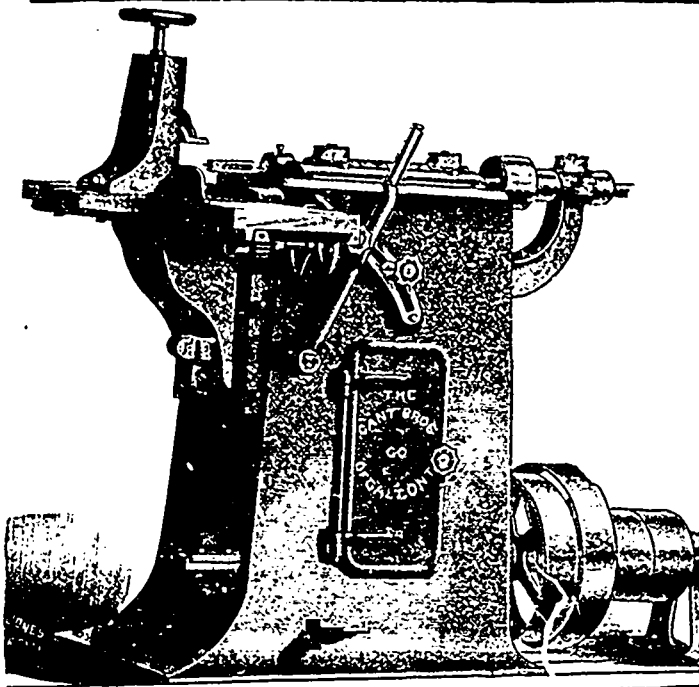


**New  
Power  
Shifter**

**BRANTFORD, CANADA.**  
Correspondence  
Solicited,



- 41,028 Spool holder, O. J. Israel and D. E. Lewis, November 26th.
- 41,029 Car coupler, N. J. Hopkins, November 26th.
- 41,030 Steam engine load regulator, F. W. Mount, November 26th.
- 41,031 Fish net, C. Leiding, November 26th.
- 41,032 Thrashing machine, J. Buchanan, November 26th.
- 41,033 Buckle, J. H. Smith, November 26th.
- 41,034 Station indicator, G. de C. O'Grady and J. R. Collins, November 26th.
- 41,035 Gang saw mill, W. T. MacKey, November 26th.
- 41,036 Shutter slat tenon, A. M. Clay and R. Vernon, November 26th.



## Hollow Square Chisel Morticer

FOR MORTICING IN HARD WOODS

CANT BROS. CO., Ltd., GALT, ONT.

- 41,038 Night light and time indicator, S. Alderson, November 26th.
- 41,039 Self-active life preserver, C. Paulsen, November 26th.
- 41,040 Rail fastening, T. E. W. Fay, November 26th.
- 41,041 Safety gate for bridges, H. H. Reynolds and J. W. Haugsterfer, November 26th.
- 41,044 Fly trap, W. J. Kayser and W. Gendir, November 26th.
- 41,045 Paper bag machine, The Diamond Paper Bag Co., November 26th.
- 41,046 Bicycle, R. W. Shannon, November 26th.
- 41,047 Barrel for apples, etc., C. Actkers, et al, November 26th.
- 41,048 Nut tapping machine, W. W. Leggett, et al, November 26th.
- 41,049 Mower, McCormick Harvesting Machine Co., November 26th.
- 41,050 Tinsmith's machine, Peck, Stow & Wilcox Co., November 26th.
- 41,051 Air brake, C. R. James, November 28th.
- 41,052 Dispensing liquids, W. M. Fowler, November 28th.
- 41,053 Driving gear for planing machine, L. T. Pyott, November 28th.
- 41,054 Arms for water wheel and wind mill, J. Williamson, November 28th.
- 41,055 Air tight storage and preservation of food products, L. Smith, November 28th.
- 41,056 Ear muff, H. Hadden, November 28th.
- 41,057 Table attachment to bedstead, C. C. Elston, November 28th.
- 41,058 Weighing machine, L. C. Farmer and J. H. White, November 28th.
- 41,059 Cord knoter for grain binders, A. Stark, November 28th.
- 41,060 Separable pulley, H. J. Gilbert, November 28th.
- 41,061 Car coupler, T. Heard, November 28th.
- 41,062 Fountain attachment for inkstand, J. V. Bergen, November 28th.
- 41,063 Automatic fastener, J. Sterns, November 28th.
- 41,064 Cross cut saw, J. S. Wilson, November 28th.
- 41,065 Cigar lighting lamp, W. J. Eastman, November 28th.
- 41,066 Chuck for pipe nipple, W. O. McFarlane, November 28th.
- 41,067 Propelling vessel, T. Nults, November 28th.
- 41,068 Window blind, H. Murdock, November 28th.
- 41,069 Churn, J. A. and B. R. Hamilton, November 28th.
- 41,070 Hay rake, J. H. Soehren, November 28th.
- 41,072 Button setting machine, American Button Fastener Co., November 28th.
- 41,073 Coin freed apparatus for giving access to a book, F. W. Jacob, November 28th.
- 41,075 Receptacle for preserved meats, D. Rylands, November 28th.

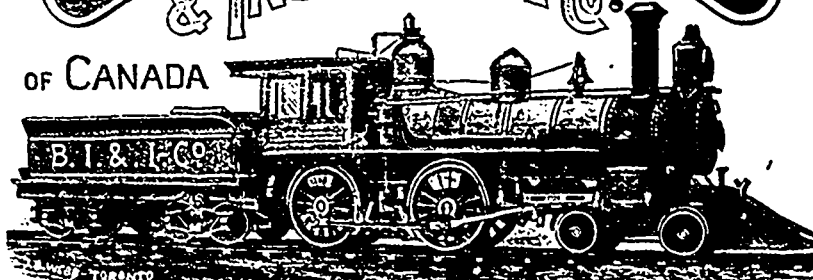
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LAST  
Inspected ?

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Are you sure  
THEY ARE  
**SAFE**  
AND IN  
GOOD  
Condition ?

ELECTRICAL.

- 40,734 Electric railway signal, W. H. Waddell, October 17th.
- 40,756 Electrical meter, H. M. Pilkington and R. S. White, October 19th.
- 40,761 Circuit controlling and protecting device, The Thomson-Houston International Electric Co., October 20th.
- 40,854 Utilizing electrical energy, M. W. Dewey, November 2nd.
- 40,913 Insulator, F. A. Ross, November 5th.
- 40,930 Brush holder for dynamo electric machine, E. P. Wettmore and S. Z. Mitchell, November 7th.
- 40,131 Pilot for electric motor car or cars propelled by any other power, J. M. Sparrow and J. Anderson, November 7th.
- 40,949 Electric car fender, E. Rochester, November 10th.
- 40,970 Electrolytic apparatus, T. Craney, November 11th.
- 40,982 Arc lamp, A. G. Waterhouse, November 12th.
- 40,983 Electric meter, A. G. Waterhouse, November 12th.
- 40,984 Traction motor, J. S. Baldwin, November 14th.
- 40,986 Electric refrigerator, M. W. Dewey, November 14th.
- 41,000 Ring armature, J. G. Pool, November 15th.
- 41,016 Electrical propulsion car, A. H. Boutnell, November 16th.
- 41,020 Surgical instrument, T. R. Bradley, November 26th.
- 41,037 Electric elevator, Otis Boor & Co., November 26th.
- 41,071 Electric heating for electric railway, M. W. Dewey, November 28th.
- 41,074 Electrolytic cell, E. A. LeSueur, November 28th.

SCIENTIFIC PROCESSES.

- 40,732 Distillation of concentrated soap lye or the glycerine recovered from soap lye, J. S. Kirk & Co., October 17th.
- 40,733 Distillation of concentrated soap lye or the glycerine recovered from soap lye, J. S. Kirk & Co., October 17th.
- 40,740 Evaporating and concentrating solutions, J. A. Morrell, October 18th.
- 40,755 Manufacture of oil-gas, W. B. Frink, October 20th.
- 40,801 Refining hydrocarbon oils, J. Gardner and J. F. Harris, October 25th.
- 40,804 Production of oxygen gas, R. B. Bowman, October 26th.
- 40,810 Manufacture of gas, The Acme Liquid Fuel Co., November 2nd.
- 40,814 Distilling oils, E. A. Edwards, November 2nd.
- 40,893 Treatment of patients during surgical operation, C. B. Harness, November 4th.
- 40,899 Destructive distillation of mineral ores, J. Laing, November 4th.
- 40,939 Gas making, G. S. Sandford and W. H. Hill, November 8th.
- 41,027 Gaseous mixture, J. H. Parkinson, November 26th.
- 41,042 Distillation of petroleum, The Solar Refining Co., November 26th.
- 41,043 Removal of sulphur compounds from petroleum, The Solar Refining Co., November 26th.

Established 1880.



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See it in use in new Bank of Commerce Building, Toronto; now Royal Insurance Company Building, Montreal; Imperial Fire Insurance Company Building, Montreal; St. Lawrence Sugar Refinery, Montreal.

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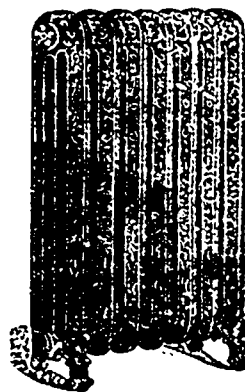
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## Captains of Industry.

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

MR. L. PEPPARD, Londonderry, N. S., will build a saw mill.  
MESSRS. DODGE & BURNS, Windsor, N.S., will build a steam saw mill.

MR. P. HOGAN will build a new planing mill at Charlotte-town, P.E.I.

MR. JAMES STODDART will erect a 25,000 bushel elevator at Thornhill, Man.

THE Anthes Manufacturing Company, Berlin, Ont., are enlarging their furniture factory.

MESSRS. LEWIS & STERRITT will build a saw mill at Five Islands Colchester county, N.S.

## THE Whitman & Barnes Mfg. Co.

CANADIAN BRANCH:

St. Catharines, Ont.

MANUFACTURERS OF

EXTRA QUALITY

Machine Knives, Etc.

◀ ◀ SPECIALTIES ▶ ▶

Knives for Mowers, Reapers, Binders, Root Pulpers and Straw Cutters.

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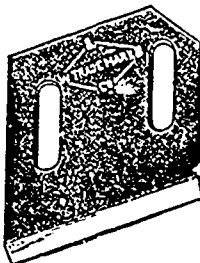
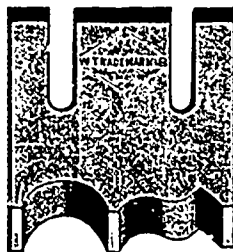
Knives for Leather Splitting Machinery.

W. & B. Diamond Twist Drills.

Spring Keys and Cotters.

PARTIES WANTING SPECIAL KNIVES  
GET OUR FIGURES.

Goods the Best. Prices Moderate.  
Quality Warranted.



MESSRS. CAMERON BROS., West River Station, N.S., are adding a shingle mill to their lumber business.

THE output of the Amherst Boot and Shoe Manufacturing Company, Amherst, N.S., during 1892, is valued at \$380,000.

THE McLaughlin Carriage Company, Oshawa, Ont., inform us that their output for the current year will exceed \$155,000.

THE Waterous Engine Works Company, Brantford, Ont., have contracted to build a large saw mill plant to go to Central America.

MESSRS. LOGAN & MORROW are starting an iron foundry at New Glasgow, N.S., to make stoves and general castings.

THE Gurney, Tilden & Company is being incorporated at Hamilton, Ont., with a capital stock of \$350,000, to manufacture stoves, ranges, etc.

MR. J. ROD. McDONALD has just erected a new saw mill at Melville, N.S. Weir & Morrison, Stellarton, N.S., supplied the mill complete.

THE business of the E. & C. Gurney Company, Toronto, have been merged into the Gurney Foundry Company, with a capital stock of \$40,000.

MR. ALEX. DIXON, Roller Bay, P.E.I., is building a large saw mill at that place to take the place of the one destroyed by fire last summer.

THE Canada Coal Company, Joggins Mines, N.S., are adding two 100 horse power economic boilers, made by the Robb Engineering Company, Amherst, N.S.

MR. A. MCPHERSON, Oxford, N.S., is supplying the engine, boiler and machinery for a saw mill now being built by Mr. John B. Campbell, at Portapique, N.S.

MESSRS. THOS. HALL & COMPANY, Charlottetown, P. E. I., manufacturers of fanning mills, etc., are enlarging their factory and introducing new machinery.

THE 70 horse power boiler being placed in the power house of the Electric Light Company of Lunenburg, N.S., is supplied by the Robb Engineering Company.

MESSRS. THOMPSON & QUIRK are having a new pump built for their Eastville mine, South Uniacke, N.S., by the Truro Foundry and Machine Company, Truro, N.S.

THE Robb Engineering Company, Amherst, N.S., have just shipped a 60 horse power Robb-Armstrong steam engine to the St. John, N.B., electric light company.

THE Erie County Natural Gas Fuel Company have struck a fine flow of natural gas at Sherston, Ont., estimated to flow 10,000,000 feet per day. It will be piped to Buffalo.

MESSRS. MCKINNON & McLEAN, Charlottetown, P.E.I., are building engines and boilers for a saw and grist mill of Mr. Frank Dixon, at St. Peter's Bay, P.E.I.

THE Therold Casket and Coffin Company is being incorporated at Thorold, Ont., with a capital stock of \$75,000, to manufacture caskets, coffins and undertakers' supplies.

A PART of the works of the Otterville Manufacturing Company, at Otterville, Ont., was destroyed by fire Dec. 6th. Loss about \$2,000. The factory proper was not injured.

THE Pictou Iron Foundry and Manufacturing Company, at Pictou, N.S., inform us that their shops are full of work. They are rebuilding a fire engine for the town of Pictou.

CAPT. JAMES PETTIS, Port Greville, N.S., has given an order to A. McPherson, Oxford, N.S., to rebuild his saw mill, which was destroyed by fire in October last.

MESSRS. P. G. FRASER & SONS, Grand Falls, N.B., are building a new rotary mill, all the machinery for which will be manufactured by the Robb Engineering Company, Amherst, N.S.

THE saw mill at Revelstoke, B.C., belonging to Messrs. Robinson & Seen, was destroyed by fire a few days ago. Loss about \$10,000. A new mill will be erected immediately.

LAMBKIN'S PATENT

## MINERAL WOOL

Fire Proof Covering

## A Great Loss!

If you have any Pipes or Boilers uncovered you are losing on same at the rate of 80 cents every year on each square foot of surface exposed. By having them covered with our Mineral Wool Sectional Covering you will save 85 per cent. of this loss. The saving thus effected in fuel will in one year more than pay the cost of covering, which we guarantee to last as long as the pipes.

Our covering is the best fuel saver on the market.

Canadian Mineral Wool Co., Ltd., 122 Bay Street, TORONTO.

CAPT. R. McMILLAN, Charlottetown, P.E.I., will build a new steamer this winter, in which the machinery from the steamer "Abram Sutton," recently wrecked, will be placed.

THE Windsor Furniture Company, Windsor, N.S., are enlarging their factory and will introduce a 90 horse power boiler, made for them by the Robb Engineering Company, Amherst, N.S.

MESSRS. CHAS. & F. A. COSSITT, under the firm name of Cossitt Bros., have succeeded to the extensive agricultural implement manufacturing firm of Messrs. G. M. Cossitt & Bro., that place.

THE J. P. Wiser & Sons are being incorporated at Preston, Ont., with a capital stock of \$1,500,000, to take over and continue the distillery business of Messrs. J. P. Wiser & Son, that place.

THE Truro Condensed Milk and Canning Company, Truro, N.S., manufacturers of condensed milk, etc., are now putting up a superior article of condensed tea, with which they are meeting with good success.

MR. SAMUEL LAUGHLAN, Black Point, N.B., is enlarging his saw mill and will add a 75 horse power and a 65 horse power Robb-Armstrong engine, supplied by the Robb Engineering Company, Amherst, N.S.

THE Richardson Gold Mining Company, Isaac's Harbor, N.S., have opened a new mine. The fifteen stamp mill, compound engine and boiler, were supplied by Messrs. I. Matheson & Co., New Glasgow, N.S.

MR. JOHN BARLOW, Wellington, P.E.I., has just erected a new carding mill, replacing the one recently burnt. It is equipped with the most improved machinery manufactured by Goldie & McCulloch, Galt, Ont.

THE Halifax Street Car Company, The Nova Scotia Power Company, and Halifax Illuminating and Motor Company have been sold to an American syndicate, who will operate the street railway by electricity.

THE E. Broad & Sons Company, St. Stephen, N.B., manufacturers of axes, edge tools, etc., are enlarging their works and introducing machinery for making all the tool handles which they require in their business.

MR. C. N. VROOM, St. Stephen, N.B., manufacturer of suspenders, larragans, etc., has secured the right of manufacturing in Canada some American and English patented suspenders, which he thinks, will take immensely with the trade.

THE St. Croix Soap Manufacturing Company, St. Stephen, N.B., manufacturers of the well known Surprise soap, inform us that the value of their output this year will be about \$200,000. They have recently made large shipments to Winnipeg, Man.

THE new water works at Stellarton, N.S., which are about being put in operation, are equipped with pumps made by the Northy Manufacturing Company, Toronto, and boilers made by Messrs. McKinnon & McLean, Charlottetown, P.E.I.

THE Union Furniture and Merchandise Company, Bass River, N.S., who were burnt out, are rebuilding their factory. The order for the rotary mill and some other machinery has been given to The Oxford Foundry and Machine Company, Oxford, N.S.

MESSRS. MCKINNON & MCLEAN, shipbuilders, of Charlottetown, P.E.I., have just delivered at Pictou, N.S., the new steamer "Caber Freidth," built by them. This steamer will take a private party of Nova Scotians to the Columbian Exposition, at Chicago, next summer.

# FOR REPAIRING MACHINERY



Our portable drilling machine can be applied to the frame of a machine, or anywhere a hole is required. It bores at any angle. Nothing like it for repairs.

EVERY MANUFACTURER NEEDS ONE.

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ELECTRIC CARS

OUR

SPECIALTY



ST. CATHARINES, ONT.

MANUFACTURERS OF

Horse and Trail Cars

OF

EVERY DESCRIPTION

THE Lamont Glass Company, New Glasgow, N.S., which started in 1890 with six hands, now employs forty hands, and each season brings a necessity of increasing their facilities. They are making lead flint glass, such as they supply to the I. C. R. for lamp chimneys, as well as other lines.

THE Goold Bicycle Company, Brantford, are building a new brick factory, 200 x 40 ft., four stories high. During the current year they have worked sixty-five hands, and turned out 1,300 machines. In their new factory they will employ 100 hands, and will turn out 2,500 machines in 1893.

MESSRS. I. MATHESON & CO., New Glasgow, N.S., are driving work upon the new steel steam ferry boat which they are building for the Dominion Government, and to be used in connection with the Intercolonial Railway at the Straits of Canso. The steamer will be 122 ft. long and 30 ft. beam.

MESSRS. MUNRO BROS., New Glasgow, N.S., are manufacturing a new seat to be used in carriages, railway coaches, etc. It consists of a woven wire top, covering electric spiral springs, the whole being covered with canvas and plush. They are supplying a large number of these seats to the Intercolonial Railway.

THE Nova Scotia Steel and Forge Company, New Glasgow, N.S., have just completed the erection of their new machine shop, the area of which is 175 x 75 ft. They have just commenced the erection of a new rolling mill plant, which will be contained in an iron building 250 x 75 ft. They are also building an additional warehouse, 260 x 75 ft. This company now employ 450 hands, which number will be increased when the new mill is completed.

THE Robb Engineering Company, Amherst, N.S., are enlarging their works by the addition of a brick building 90 x 100 feet to be used as foundry and engine room. They now have a boiler and blacksmithing shop 50 x 150 feet, and a machine shop 40 x 135, two stories; pattern room, drafting room and offices. This firm was established in 1848. They were burnt out in 1890 and rebuilt at once. They employ eighty hands and their works are lighted by

an electric plant in their own buildings. They say their business was never so good as at the present time.

MESSRS. GANONG BROS., manufacturing confectioners, St. Stephen, N.B., have recently shipped carloads of their goods to Manitoba and British Columbia. This business was started in 1874 with 6 hands. They now employ 175 hands and are turning out 5,000 pounds hard candy per day, besides their finer lines. Their output for the current year will be about 2,000,000 pounds candy, valued at \$270,000. They will make a large addition to their factory next spring.

MR. CHILION JONES, Gananoque, Ont., agent for Canada for the Aerated Fuel Company, informs us that the system of that company for burning crude petroleum for fuel is in use by the following named concerns:—Dominion Bridge Company, Lachine, Que.; D. F. Jones Manufacturing Company, Gananoque, Ont.; Gananoque Spring and Axle Company, Gananoque, Ont.; George Gillies (bolts and drop forgings), Gananoque, Ont.; Wilkinson Plow Company, Toronto; Massey-Harris Company, Toronto; Halifax Shovel Company, Halifax, N.S.

MESSRS. JOHN BERTRAM & SON shipped last week from their works in Dundas a heavy switch and frog planer for the Canadian Pacific Railway shops in Montreal. This planer weighed 38,850 pounds. While running the belt speed is 180 to 1 of the table, the power being transmitted through a train of heavy quadruple gearings machine cut, the last of the series with the rack being steel, eight inches face. The cross rail is 24 inches deep and carries two tool blocks 24 inches square area, so arranged that the tools can be brought close together, each tool having automatic horizontal and vertical feeds. The standards are cast hollow with a face bearing for the cross-rail of ten inches, and a bearing of four feet on the bed. The table weighs six tons and has a stroke of sixteen feet, the capacity between standards being thirty-six inches. While being tested in the works it easily carried a cut  $\frac{3}{4}$  inches deep on a slab of steel. The bed and standards rest on stone foundation.

## BRUNNER, MOND & CO., Limited, Northwich, Eng.

Manufacturers of **PURE ALKALI** Guaranteed 58 degrees.

The Strongest and Purest Form of **SODA ASH** in the market, and the most Economical Form of **SODA** for the Manufacture of



# Glass, Paper, Wood Pulp, Soap and Starch

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Sole Agents for the Dominion of Canada.

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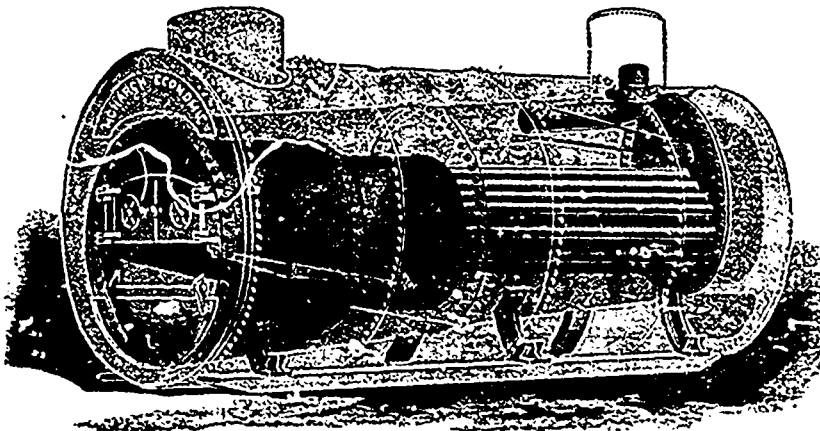
Patented Can. May 6, 1866;  
Feb. 10, 1867.

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Is the strongest and most  
**Portable Boiler**

in use, and its high economy  
in fuel makes it specially valuable  
to gold miners.

Tested evaporation 10.25 lbs.  
water per pound of ordinary  
Nova Scotia coal.



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**The Robb-Armstrong  
Automatic Engine,**  
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**BELTINGS.**  
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LIMITED,  
Successors  
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*Special Castings.*

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**BRIDGEVILLE, NOVA SCOTIA.**

WORKS : **Bridgeville, N.S.** HEAD OFFICE : **New Glasgow, N.S.**

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SUITABLE FOR

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Suitable for Car Wheels, Cylinders and Fine Castings where the utmost strength is required.

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and Power Circuits, Flexible Cords, and**

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J. J. CASSIDY, Secretary

GEORGE BOUTH, Treasurer

Office, ROOM 66 CANADA LIFE BUILDING, KING ST. WEST - TORONTO.

TELEPHONE 1274.

## 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.  
Any person directly interested in any Canadian manufacturing industry is eligible for membership.

Manufacturers desiring to hold meetings for the promotion of their business are invited to avail themselves of the Board Room of the Association for the purpose, which is offered to them free of charge.

J. J. CASSIDY, Secretary.

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Its Building Department is a marked feature of the paper, presenting as it does, the latest and most interesting facts pertaining to the Building Industry. Its Hardware Department is more complete than that of any other paper published, and is fully abreast with the times. The market reviews are impartially and correctly written, and are authority in the trades. This journal has a wide and constantly increasing bona fide circulation, and as an advertising medium has no superior in the United States.

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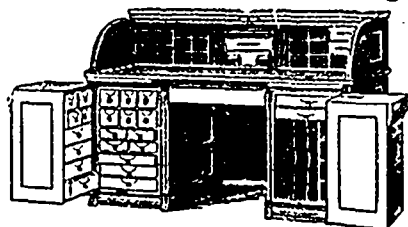
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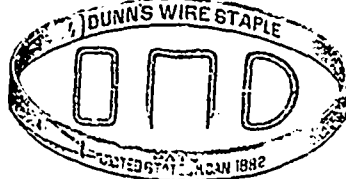
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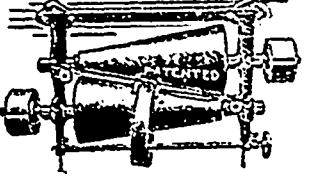
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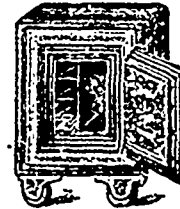
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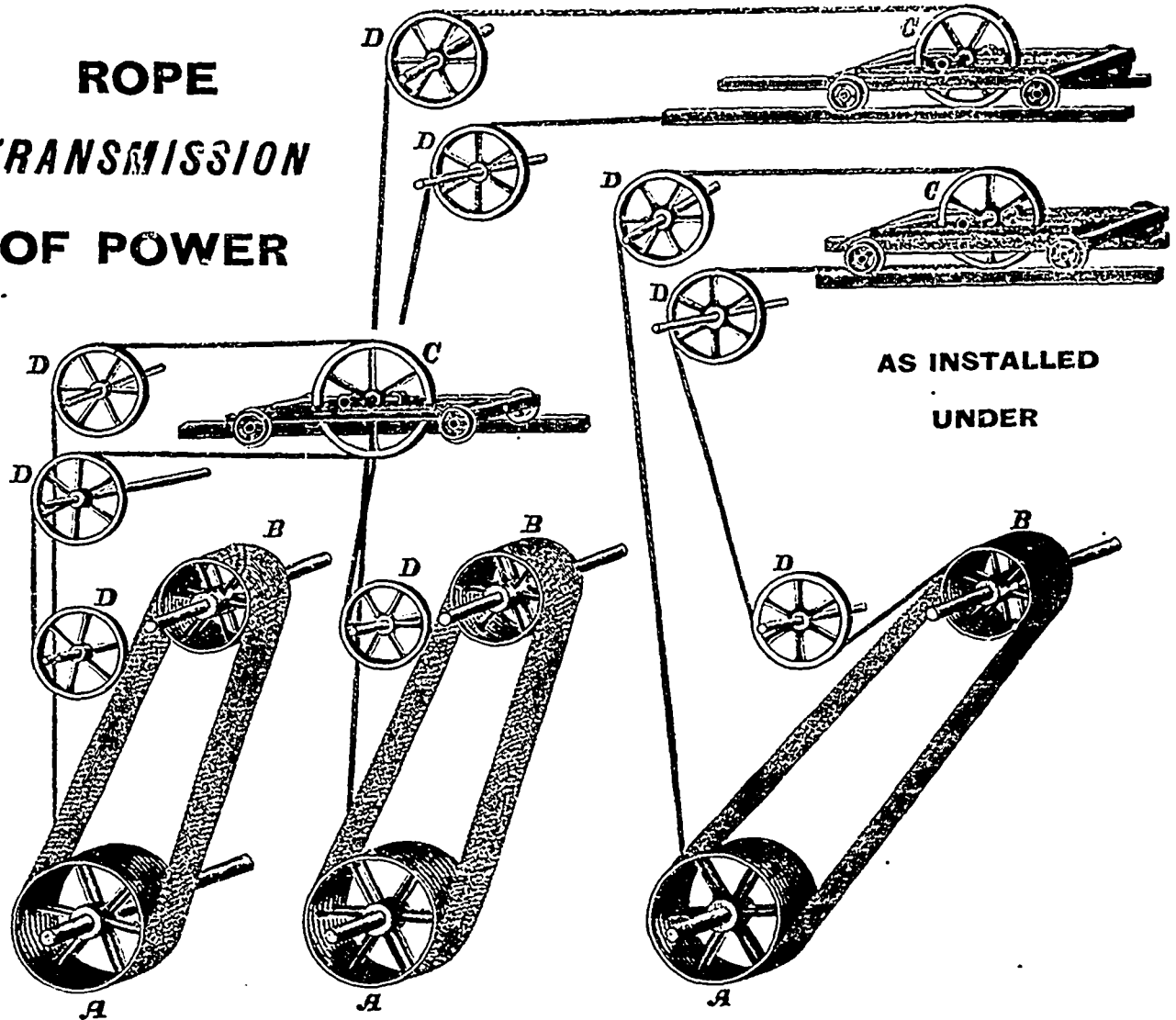
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The pulleys used in each Drive may be described as follows: A. Driving wheel, 96" diameter, by 50" face, all Iron and grooved for 24 ropes 1 1/2" diameter, which is placed on the horizontal jackshaft geared from Water wheel. B. Driven wheel, 64" diameter, by 50" face, grooved for 24 ropes 1 1/2" diameter, all Iron and located on Main shaft on main floor of Mill, connecting with grinders by friction couplings. The Carriage pulley C. runs in Track overhead to where rope is filled by Idler pulleys D. D. D. D. The manner of carrying tightener rope up overhead was not from choice but by necessity, although the arrangement on the whole presents rather a novel sight.

It may be said that when equipping this mill some two years ago, the Eddy Co., introduced large Belts 50" in width for the Drives mentioned, but after fully convincing themselves that something more positive was required, they decided in June last to ask the Dodge Wood Split Pulley Co. to improve their power, and with the above results. As to how the Eddy Co. are pleased with the change it is only necessary to say that they now run the whole six grinders at once, always up to speed and without a flicker; while with the 50" Belts, the best they were able to do was to run half the pocket at a time, in fact could not keep themselves supplied with pulp. The argument in this proves a case in point where a large amount of power was required to be transmitted positively and without loss or slippage, and that it was accomplished by ropes erected under the Dodge Co.'s patents, at a much less first cost, and with more satisfactory results by 50 per cent. than by wide and costly Belts.

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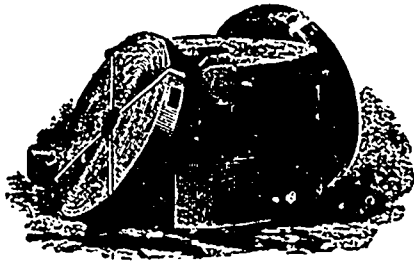
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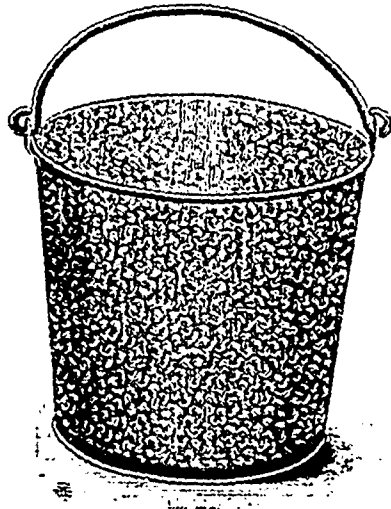
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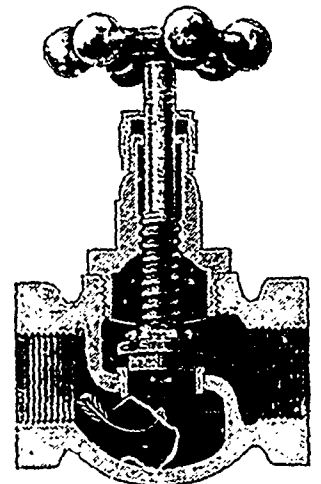
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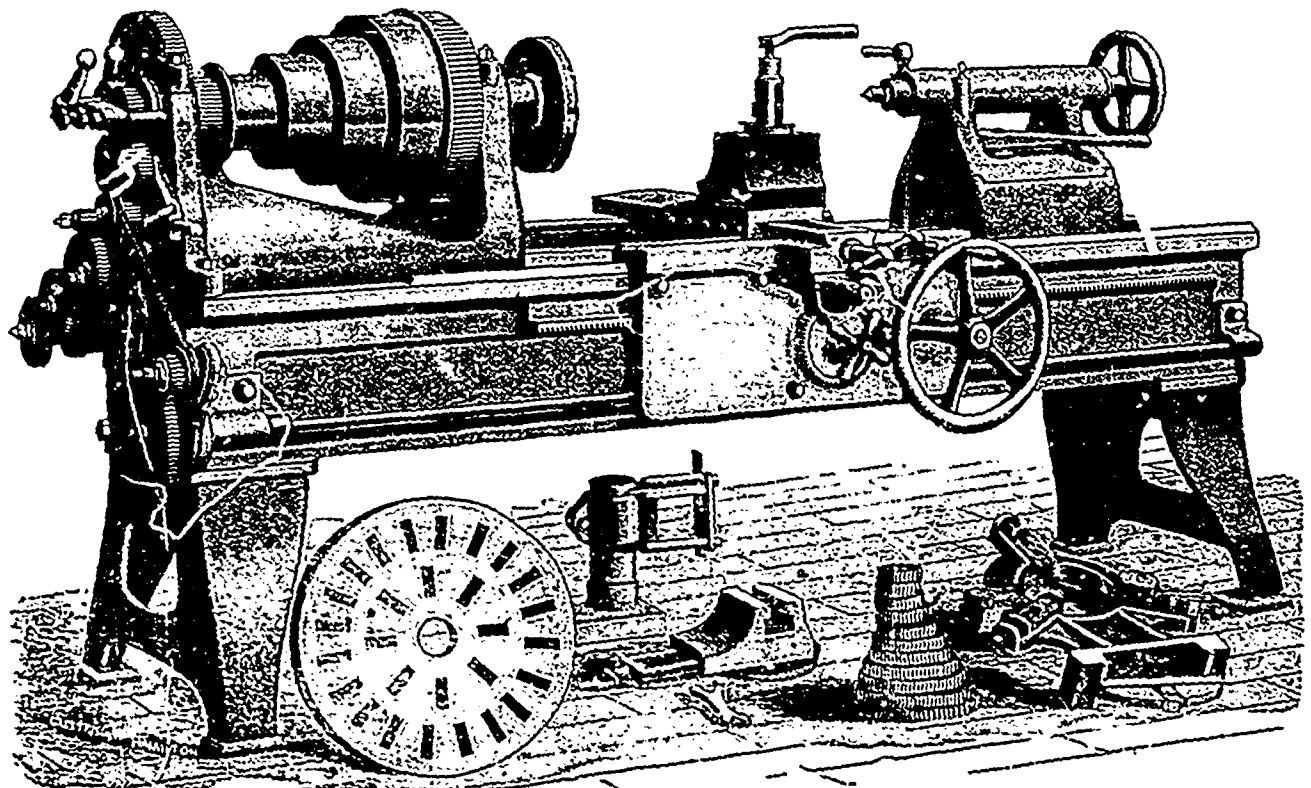
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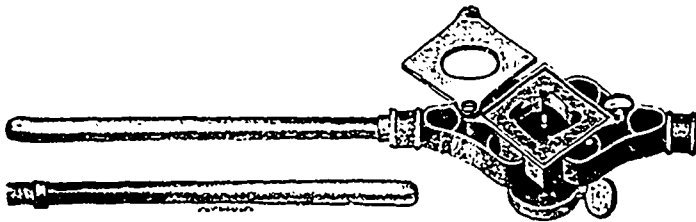
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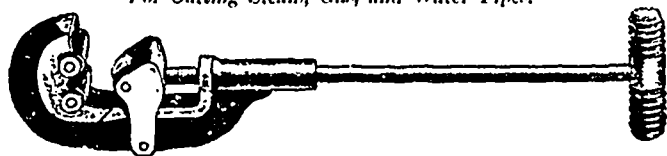
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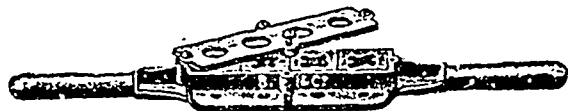
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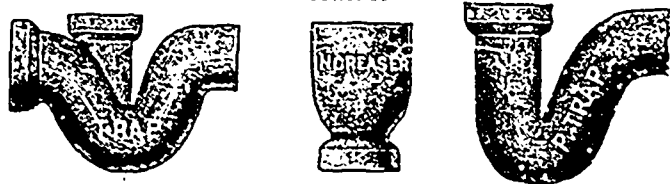
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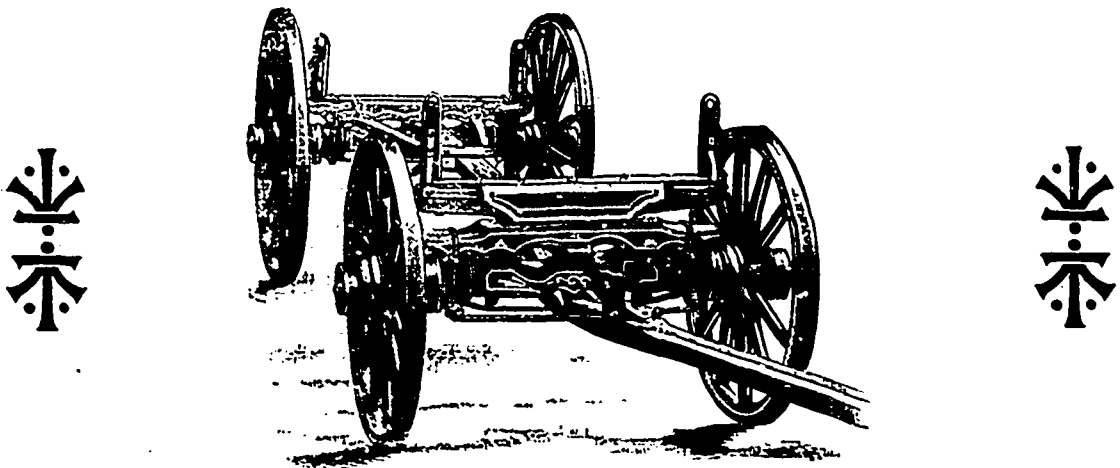
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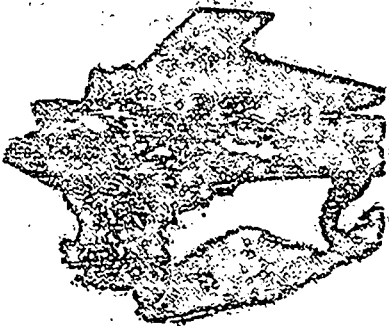
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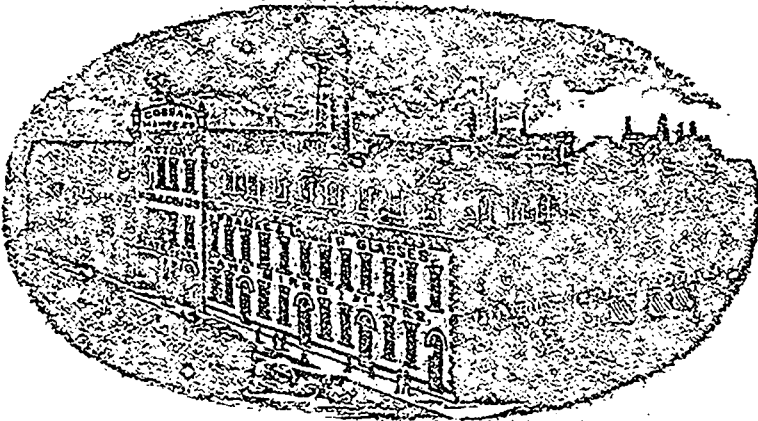
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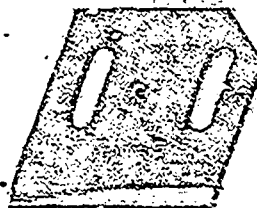
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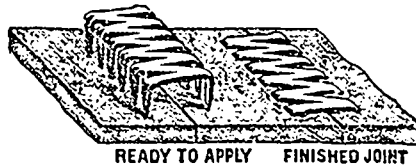
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