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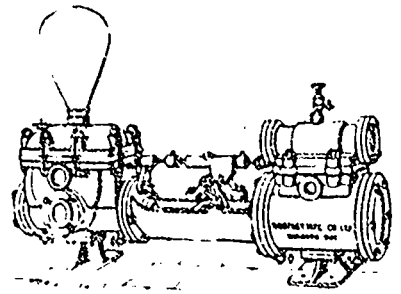
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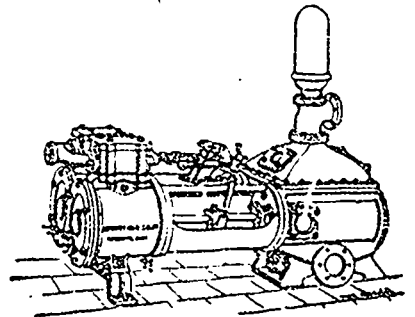
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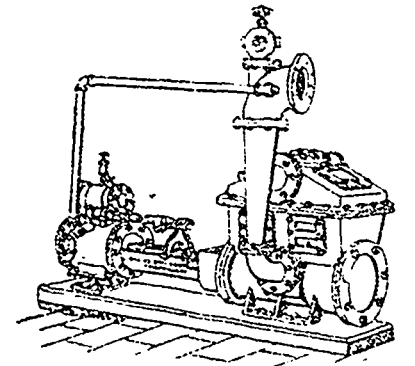


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CANADIAN MANUFACTURERS' ASSOCIATION MEETING.

A SPECIAL general meeting of the Canadian Manufacturers' Association will be held in the Board Room, over the offices of the Toronto Industrial Exhibition Association, on the Fair Grounds, on Wednesday, September 14th, at three o'clock in the afternoon, during the time of the forthcoming Toronto Exhibition. All members of the Manufacturers' Association, and all manufacturers who may desire to do so, are hereby notified and invited to attend.

The business office of the Association will be in the Press Bureau as usual.

W. K. McNAUGHT, *President*. J. J. CASSIDY, *Secretary*

IN HOC SIGNO VINCES.

In an early day in June 1882—ten years ago—in response to a circular letter from Sir John A. Macdonald, a large meeting of Canadian manufacturers was held at the Queen's Hotel, Toronto, Mr R. W. Elliot being in the chair. Several prominent gentlemen addressed the meeting on the

subject of the N.P. and its relation to the prosperity of the manufacturing industries of the country, some of the speakers being Sir John A. Macdonald, Hon. D. I. Macpherson and Senator J. B. Plumb. After these gentlemen had retired the meeting appointed a committee to set before the electors of the country the advantages which had already resulted from the N.P., and the still greater benefits which would accrue if that policy were fully sustained. The committee consisted of some of the best and most influential manufacturers of the country, among whom were Joseph Simpson, Edward Gurney, jr., R. W. Elliot, George Booth, Samuel May, W. Heintzman, James Watson, James Young, Adam Warnock, Hugh McCullough, Charles Raymond, William Bell, John Bertram, Bennett Rosamond, John Wesley, John R. Barber, William Rosamond, W. H. Storey and William Chaplin.

That was one of the most important political meetings ever held in Canada. None of the participants were politicians. It was composed of men who, as manufacturers, had risen superior to politics, and who were, or had been, affiliated with both the then existing political parties. They were drawn together by a desire to see Canada made a great self-sustaining manufacturing country. The N.P. was then in its infancy. Sir John A. Macdonald had brought it into existence, and its enemies were doing all they could to destroy it. Under it large numbers of manufacturers had been induced to invest their wealth in industrial enterprises, and now, when its integrity was threatened, their great captain had called them together to warn them of the danger which beset them, and had rallied them in council to devise methods by which the efforts of the enemy were to be defeated and the N.P. made more thoroughly secure. History records how promptly the manufacturers acted upon the advice of Sir John, and what good results flowed from their action. The Captains of Canadian industry who composed that committee inscribed upon their banner of protection, "In Hoc Signo Vinces," and their work justified the motto. They did their work well and nobly, and Canada has good cause to perpetuate their names and to record their worthy deeds.

Since that memorable meeting in June, 1882, some of the representative men who participated in it have gone down to the dust, but most of them are yet alive and active, vigorous fighters in sustaining the cause of tariff protection to Canadian manufacturing industries, illustrating in their successes in life the sterling worth of their individuality, and the benefit that policy has been to them. That nucleus of earnest men who assembled around Sir John that glorious June day ten years ago has increased to a powerful army. Its recruits and adherents are to be found throughout this broad Dominion, from Halifax to Vancouver. Under the folds of that National Policy banner no politics is known or discussed other than such as bear directly upon that policy, and in this fact lies the strength and invulnerability of that army.

The manufacturers who participated in that meeting, perhaps every one of them, were members of what is now the Canadian Manufacturers' Association. This Association was no new thing even at that time. The inception of it dates back to a time when Canadian manufacturing industries had no tariff protection. It was then that a number of manufac-

turers, without distinction of party, foregathered in Toronto, and, after a full discussion, passed resolutions to the effect that the success and perpetuity of their enterprises depended upon the adoption by the Government of a sound and sufficient tariff system. This was in 1874, and the N.P. was evolved from this meeting after a long and arduous struggle, which was crowned by the victory of 1878. The influence of this Association has contributed largely to the solidification of public sentiment, and to the direction of tariff legislation. Sir John A. Macdonald was well aware that his party could not accede to power, nor retain it, upon any other issue than that of the National Policy; and he and his party knew that the reins of government would remain in their hands as long as they had the hearty support of the manufacturers. It is a noticeable fact that although the manufacturers may be divided on all other issues and policies of the Government, there is one platform upon which they all stand, and where political differences do not divide them—that of the National Policy. The allegiance is to a policy, not to a party.

This, then, being the case, it is clear that the party holding power through this influence, would lose it should it turn a deaf ear to the reasonable requests of the manufacturers for such modifications of the tariff as appear necessary from time to time. They have never claimed that any tariff enacted under the N. P. was immaculate. Circumstances are constantly changing, and the tariff should be made to conform to them. In doing this it is not understood that the principle, or policy upon which it is built is violated, for it is not. Nor are the men who formulated it any more immaculate than the tariff which they have made; and it is their duty, as it should be their pleasure, to listen to the suggestions of their friends, the manufacturers, and remove such incongruities as may appear in it. They are the servants of the people, and they ought not to attempt to inhabit a sphere higher than that of the people. The stream ought not to attempt to rise higher than its source, for it cannot do it.

There is that in these reminiscences and suggestions that should commend them first to the Government, second to the members of Parliament who support the Government, and third to the manufacturers whose influence and votes have elected these members. The ability of the Government to hold office, and of the members to occupy seats, lies in the suffrages and good will of the upholders of the policy of tariff protection to Canadian manufacturing industries. It is by this sign they conquer.

THE KEY-STONE OF POLITICAL SUCCESS.

It seems quite strange that people do not comprehend that Canadian manufacturers are not necessarily members of the Conservative party merely because they vote for Conservatives in preference to Reformers in Dominion elections. It has often been shown in these pages that quite a large portion of our manufacturers are regular and staunch adherents of the Reform party in all things and at all times except when the National Policy is in question. In local politics they are unswerving Reformers, and it is because they are that the governments of about all the Provinces of the Dominion are in the hands of Reform statesmen. On the other hand, we see

the Dominion Government entrenched behind a Conservative majority which it seems impossible to overcome. The reason for this anomaly is obvious. In provincial politics it is impossible for the legislatures to interfere or legislate in tariff matters, and therefore those manufacturers whose sympathies lie in that direction are always free to go with their party, and to elect Reformers to office; while in Dominion elections the safety and perpetuity of the National Policy is at stake, and because they are supporters of it—because they believe that their prosperity and that of the country depends upon the maintenance of our system of tariff protection to our manufacturing industries—they separate from their political party which does not sustain the National Policy, and affiliate with their otherwise political enemies who do. There is nothing else in common between these pro-tariff Reformers and the Conservative party. It does not follow that because these men vote the Conservative ticket in Dominion elections they approve of any other Conservative doctrine than the National Policy. In fact, it is well known that they do not, as is frequently exemplified in the divisions of the House of Commons. But they think the National Policy of such great importance that they are willing to swallow all other issues, palatable or not, so that the perpetuity of the National Policy is assured. There are quite a number of Conservative members of the Dominion House of Commons who hold their seats by exceedingly narrow majorities; and it is true that these members could not possibly have been elected had it not been for the votes and influence of the manufacturers. In a previous article we have given the facts and figures by which it is shown that the change of but a couple of hundred votes in the Province of Quebec would have given the Reformers a decided majority there; and this fact applies also to Ontario. It is clear, then, that the fate of the two great political parties in Canada, in Dominion elections, rests with the manufacturers, and that even indifference, not to say active hostility to Conservative candidates, in a few constituencies, would deliver the Government into the hands of the Reform leaders.

This situation accentuates the fact that the National Policy is the key-stone of political success. It is just what it purports to be. It is not a party policy, and it does not belong inalienably to the Conservative party. It is true that party, under the able leadership of Sir John A. Macdonald, seized upon it and under its aegis attained to power. Is there a voter in Canada who can discern any other important issue between the Conservative and Reform parties? There is not one. There is no less patriotism among Reformers than among Conservatives. Canada is as much beloved by one as by the other. One would fight for her honor as quickly as the other. One would rejoice in her prosperity as heartily as the other. The struggle between the parties is for office more than anything else, all the chances being with the one which advocates and upholds the National Policy.

Why does not the Reform party uphold the National Policy? Aye, why? The leaders know that the country entertains a sentiment for tariff protection which will always crown with success the advocates of it, and will always doom to disaster and defeat those who oppose it. Are these leaders Bourbons who never learn anything, and who never forget? It

would seem so. It seems that they would prefer to go through life political Jeremiahs weeping and wishing for the unattainable, than to forsake the error of their ways, brighten up their countenances, have faith in their country and become willing to meet and carry out the views of the people on this most vital subject. Why don't they do it? It is said that some men would rather rule in hell than serve in heaven. Some of the leaders of the Reform party are of this character; but there are plenty of progressive men in that party who should be bright enough to see so good an opportunity, and quick enough to grasp it. Why are they willing to continually reside in the cold and oblivious shades of Opposition when, if they cheerfully accept the inevitable, and also become staunch advocates and supporters of the National Policy, could soon be basking in the bright sunlight of political predominance. There is only the one thing needed. Manufacturers whose preferences in all other ways are with the Reform party would most cheerfully give their votes for a Reform statesman if they believed that the National Policy would be safe in their hands. Manufacturers are protectionists first and always. If Reformers ever accede to power in the Dominion Government, it can only be by winning over this class of voters. If the Conservatives expect to retain power, it must be by a faithful observance of the spirit of the National Policy. The manufacturers would be the arbiters if the Reformers were smart enough to catch onto a good thing when it comes within their reach.

THE GRITS AND THE N. P.

If the Grit party by convention or private agreement, are hatching another onslaught upon the National Policy, well and good. They will find its advocates ready for them. Nothing can be more certainly demonstrated than the benefit of the home market to the farmer, and the growth of that market under protection. One of the chief fallacies of the Grit trade policy—whether their revenue tariff policy of 1878, their anti-protection policy of 1882, their whittling down Blake policy of 1887, or their free trade with the States scheme of 1891—has been the persistent ignoring of the home market.—*The Empire*.

The *Empire* seems to be much concerned regarding the outcome of the talked-of Grit party convention, and would be much pleased to prepare a platform for it. Who knows but what that party are preparing to knock the wind out of the sails of the Tory party by stealing their thunder? There are many patriotic men among the Grits who have no doubt observed that their party has been and is on the wrong tack, and that the frequent shipwrecks that have befallen them are just so many presages that they must change their course if they would ever arrive at their desired destination. They see as clearly as the other party does that the farmer is the advocate and upholder of the National Policy, and that no free trade arguments can swerve him from his allegiance thereto. If these Grits are as wise as they are patriotic, having observed this fact they will act upon it. Certainly they are not all Bourbons who never learn and never forget. Inordinate conceit and pigheadedness are characteristics of men of obtuse intellect, but there are very many Grits who are brilliant, far-seeing men. These are not to be blamed for declining to take the *Empire* into their councils; but who knows but what they are intending to capture the National Policy and incorporate

it into their proposed new platform? It is not impossible for them to do so, and it is not entirely improbable. Such a thing would not be an unprecedented event in politics, and surely the patriotism of the country would not feel very horrified if it were done. If it were done it would be difficult to distinguish any difference between the two parties. A Grit party standing upon a National Policy platform, and a Tory party going before the country upon the same issue, would be different only in name and in the would-be leaders. These would be differences for which the people would care nothing. The effect would be that the people would be free to choose whom they would elect, and the best would be elected regardless of previous party distinctions. With both parties advocating a policy of tariff protection to Canadian manufacturing industries, the prosperity of the country would be assured. The best and wisest men would be in office. There would be no brutal and inconsiderate two-thirds majority to defy foes and disappoint friends. The idea of such a condition might be Utopian, but it should not be impossible. We might strive for it, and certainly we are all the better for having striven after a good thing whether we attain it or not.

DIVINE RIGHTS.

LABOR troubles in the United States affecting two very important industries have recently occurred: that at Homestead affected a protected industry, that at Buffalo an industry in which protection played no part. In the Homestead incident the free trade papers and orators made loud denunciation of protection as being the cause of the trouble, the effort being made to influence the public mind against protection in that it had built up a grinding monopoly which ignored the rights of labor and forced wages down to a point where starvation or rebellion were the horns of the dilemma. In the Buffalo affair no such argument could be advanced.

Public sentiment is usually quick to array itself on the side where it is thought the weak are being imposed upon by the strong; and in the Homestead affair, without stopping to consider the real facts of the case, the impression was that the iron workers were to be forced to accept wages which meant starvation. Discussion has disclosed the fact that this was not the case, but that the strike was engineered by men who had nothing to lose and everything to gain by plunging the community into anarchy. In fact, it was to be a test as to whether men who were willing to work should be allowed to do so if they did not happen to owe allegiance to a labor organization. In Buffalo the strike was precipitated by equally unwise leaders, the same spirit of intolerance and tyranny being observable when bloodshed, rapine, arson and plunder were resorted to to prevent men from working who did not owe allegiance to a labor organization. In this case, as in that of Homestead public sympathy was actively interested in behalf of the laboring man until it was forfeited by acts of lawless violence.

In seeking the causes of these outbreaks we are reminded of the fact that within the past few weeks in at least four States of the American Union it was found impossible to quell the disturbances growing out of these so-called labor

troubles, and to restore peace and the enjoyment of guaranteed rights, except by the aid of the soldiery. We refer to the trouble in Pennsylvania, where the Amalgamated Association of Iron Workers precipitated riot and committed murder in an effort to prevent non-union labor taking employment in the Homestead mills; to the outbreak at the Idaho mines, where the union miners went on strike and butchered and tortured non-union miners who desired to work, the disturbance not being suppressed until the United States Government sent an army there for the purpose; to the action of the union miners in Tennessee in destroying the stockades surrounding the mines where the State's convicts were employed, in the putting down of which lawlessness the militia forces of the State were called into requisition; and to the event at Buffalo, with the circumstances of which we are all familiar. In all of these cases the soldiery were brought to the scenes of action after murder or arson, or both, had been committed; and it is to be noticed that all of these outbreaks arose directly from the efforts of organized labor to prevent non-union labor from supplying their places when they were out on strike. Far be it from us to deny the right of laboring men to organize, and also to use all lawful means to induce other laboring men to become connected with their organizations, with the understanding always that whatever they do must be within the pale of the law. We object, though, to these organizations being a law unto themselves, and to assuming any power by the exercise of which they may coerce and force unwilling acquiescence from any.

The fact is, in the United States, organized labor pretends to hold a large influence in elections, and they wield it so mercilessly that frequently, as in the Pennsylvania incident, those in authority decline to interfere in the preservation of the peace until after outrages have been committed, for which the whole nation have cause to blush with very shame. There organized labor, through their control over politicians whom they have elected to office, have produced a condition which tramples into the dust the constitutional rights of others. By a pretence of power they bulldoze politicians and dragoon the country into submission to their unconstitutional demands.

Abstractly these organizations certainly possess the right to go on strike whenever they may desire to do so; but this "divine right," as they call it, is far-reaching in its effects when exercised, and generally most pernicious in its results. Confined in its operation to legitimate functions, no great harm could be done to the community by strikes, and the strikers might greatly improve their condition thereby; but unfortunately, strikes are not usually conducted in that way. They are too immense and intractable for the engineers of them to control when they have once been started; and the almost invariable result is that the divine rights of others are not considered when the etheric force of unbridled passion is liberated. One of the most cruel and objectionable features observable in labor troubles is the "divine right" to apply vile epithets to unorganized labor; and this spirit of detraction and abuse is confined not alone to organized labor. In speaking of strikes the press despatches and the newspapers generally indulge in it to a most reprehensible extent. Why should such names as "scab," "black sheep," etc., be applied to men

who exercise their divine right to labor without dictation from those who are opposed to any exhibition of manly independence? Scabs, and black sheep, as they are called, otherwise non-union men, are never known to bombard with cannon barges loaded with helpless men, as was done by the Homestead strikers; to burn their victims alive as was done in Idaho; to break down stockades and liberate the prisoners who had been convicted of heinous crimes, as was done in Tennessee; or to derail cars loaded with helpless passengers—men, women and children—and destroy by fire the property of inoffensive people, as was done at Buffalo. These scabs and black sheep are usually distinguished by all the better characteristics of good citizenship, a comparison as against the unlawful excesses of the others which throws no unfavorable light upon them.

This "divine right" business, as being interpreted by organized labor in the United States, has become very badly disorganized and demoralized. It should be remodelled upon more humane and equitable lines.

MONKEYING WITH A BUZZ SAW.

WHEN a stone is hurled into the air the force with which it is returned to the earth is equal to that which propelled it upwards. And similarly this is the fact as regards the rescinding of the bonding privilege with which Canada is threatened by the Yankee Government. They claim that Canadian railways are the most benefitted by the "privilege," and, therefore, because Canadian institutions are benefitted by it, they are to be deprived of it. It is true that several hundred miles of so-called Canadian railways lie within the jurisdiction of the United States, and that if they were deprived of the privileges they now enjoy the owners thereof would be injured to a certain extent. But it should be remembered that in the operation of these roads only American labor can find employment, and that hundreds of Americans are thus employed. A disbarment from this traffic would then seriously affect these American workmen. The bonding privilege also benefits several large American cities, and is of most decided advantage to several states of the American Union. The competition of the Canadian with the American roads ensures cheap freights in interstate traffic between New England on the one hand, and Michigan, Wisconsin, Minnesota, Dakota, and other western states on the other. The benefit to Canada in having the use of New England sea ports during the winter is probably no greater than that derived by those ports in having that traffic. If we are to be deprived of it we may suffer some inconvenience, but it will be a serious blow to the prosperity of the American ports. We can exist without them, for we have ports of our own—St. John and Halifax—which could be used both winter and summer, although not with as much comfort and convenience in the winter as in the summer. It would be no experiment to use those ports in the winter, and the reason why we have not thus used them was because the others were more convenient. With the exception of the tolls won by the Canadian roads under the bonding privilege, Canada has but very little interest in the traffic over her territory between New England and the west. We are not otherwise interested in the cheap hauling of grain from Minnesota and Dakota to

Boston and Portland, nor in the cheap hauling of merchandise in the other direction; but both these sections of the United States are deeply interested in maintaining a healthy competition with the great trunk lines of their country. If this bonding privilege is withheld—if western grain cannot be carried in bond over Canadian territory to be shipped abroad through American ports—it is not in the power of the American Government to prevent its shipment abroad through Canadian ports; and Montreal, St. John and Halifax would certainly be benefitted by the event. The Constitution of the United States declares that no obstacle shall be laid in the way of the free exportation of merchandise from that country. In view of the exceedingly unfriendly attitude of the Yankee Government, the plain and palpable duty of Canada is to push the completion of the Sault Ste. Marie canal with all possible speed so that we will be entirely independent of the Yankee canal at that place, and to reconstruct the St. Lawrence canals so that any vessel passing through the Welland canal may proceed without interruption to Montreal. This being accomplished, we would be masters of the situation. With the present treaty abrogated, we would be in position to exclude American vessels from participating in a traffic which would soon surpass that which that country now possesses on the Great Lakes. We could make it to the advantage of the Western States to send their grain to Europe via the St. Lawrence route, and this without allowing American vessels to participate in it, except on such terms as we might dictate; and by the same token we could make it more profitable for the Western States to have their European merchandise brought in by the St. Lawrence route than by any other.

Mr. Harrison and the Yankee Government are fooling with the business edge of a buzz saw. With a view to coercing Canada into annexation they are dealing us as hard blows as they know how to deliver. We may be somewhat discomfited in the conflict they are forcing upon us, but we will continue in the ring to the end of the bout.

EDITORIAL NOTES.

CANADIANS for Canada.

CANADA for Canadians.

CANADA is neither helpless nor hopeless.

MAKE spades trump and play them for all they are worth.

CANADA, right or wrong, first, last and all the time—Canada.

MAKE no mistake in the name of it: it is Coercion, not Retaliation.

THERE should be an export duty on saw logs. This is the proper season of the year for imposing it. Impose the duty.

MR. RYAN, the contractor, will now please proceed without delay to complete the Sault Canal. The sooner the completion the larger the reward.

THE conglomerate Anglo Saxonism of the United States need never expect to successfully bulldoze the unadulterated Anglo-Saxon blood of Canada.

DEAR UNCLE SAM: Coercion vinegar is not a suitable bait with which to catch flies. You have tried it frequently and have never yet succeeded.

Let Independence be our boast,
Never mindful of the cost.

P.S. The particular "Independence" here alluded to has reference to the Canadian canal at Sault Ste. Marie.

This is a most excellent season of the year for the Dominion Government to impose an export duty on nickel ore and matte. Let it be done now, and make it say \$200 per ton impose the duty.

THE exhibits of Canadian manufactures which it is said Mr Larke is getting up for the Chicago Fair, should be shipped via the Yankee St. Mary's canal in illustration of the heartiness with which Canada, Canadian manufacturers and Canadian products will be received by the great Yankee nation.

IN referring to President Harrison's retaliation proclamation as solely due to electioneering tactics, do not our jingoes forget that it was ordered by a Democratic Congress?—*Montreal Herald*.

President Harrison's coercion proclamation was not ordered by a Democratic Congress. Try again.

Mrs. MARY BURN, wife of Mr. George Burn, and daughter of Mr. Samuel Collinson, of the Whitman & Barnes Manufacturing Company, of St. Catharines, Ont., died at her father's residence in Buffalo on August 23. This journal and its many friends who are also friends of the bereaved husband and father, extend their sympathy.

THERE is one point where Canada can "even up" a little in this coercion business. No Canadian vessel has ever been allowed to carry lumber from Ottawa, Canada, to Albany, New York, but a large number of American vessels find lucrative employment in that trade. Put an export duty on all lumber shipped from Canada by that route.

SPEAKING of the Chicago Fair, the *Empire* tells us that "It has fallen to Mr. Larke's lot to get together a good exhibit of our manufactures." Wonder where he keeps them? If Mr. Larke is really inducing any of our manufacturers to consent to make exhibits at Chicago, he should take the public into his confidence and give the names of some of these exhibitors and the nature of the exhibits they propose to make.

IN the game now being played between Canada and the United States, Canada has a full hand of spades, and can name the trump. Call it spades, then, and play them for all they are worth. Play them at Sault Ste. Marie, and finish the canal there by next summer. And play them also along the St. Lawrence river from Prescott to Montreal. Let the canals along that route be made of a depth to conform to that of the Welland canal. Spades will do it.

IT is on the bills that the Jarbeau Comedy Company will soon appear in Toronto, presenting "Starlight," a most beautiful light opera, in which Miss Lyllian Poole will be prima donna, singing the part of "Lucy." The New York newspapers have had many very pleasant things to say about this lady

describing her as being young, beautiful and prepossessing, with a sweet sympathetic mezzo soprano voice which she uses with artistic skill. This will be her first professional visit to Canada, although she is no stranger in Toronto, having been born and raised in Buffalo.

The disappointed Buffalo strikers have inaugurated a new method in unsuccessful strikes—they pound the "Grand Master" with their fists until he can't see, and has to call for police protection. This is well. Now let it be understood that whenever a strike is unsuccessful the "Grand Master" and the walking delegate are to be pounded with fists until they can't see, and more care will be observed in ordering strikes. This is somewhat after the Chinese style of killing the doctor who does not cure his patient. The Buffalo innovation is a good one.

The Toronto Industrial Exhibition opens on Tuesday next, the 6th Sept., and closes on the 17th. With the enlarged grounds, new half-mile track, new grand stand 700 feet long, many other improvements, and the large number of excellent special attractions provided, the coming Fair will undoubtedly be away ahead of all that have preceded it. The entry list in all departments is larger than ever, and the space in all the buildings has been taken. The usual cheap fares and excursions will be given on the railways. The attendance of visitors from all parts of the country will undoubtedly be great.

An important question agitating the public mind is: What are Optimates? It is announced quite prominently in another page that "The Optimates will be exhibited at the Toronto Fair." Is it some surprise that Mr. Hill has in store for the 12,000 people who will crowd into the grand stand every time the gates are thrown open? What is it? Is it the "What is it?" that Barnum paraded around the country a few years ago? Who knows? Does it partake of the character of the nobility or aristocracy of ancient Rome? How will the man in charge of the exhibit hammer a correct idea of it into the heads of the multitude?

It is not with any desire to pander to any feeling of unfriendliness towards our neighbors that we decline to advise our manufacturers to lend their endeavors to make the forthcoming Chicago fair a success. The spirit of President Harrison's coercion proclamation would impose a heavy tax upon all exhibits Canadians might desire to make there, if to get them there they would have to pass through their St. Mary's canal. It might be desirable to show to the world at that fair what Canada is and what Canada can do in the way of taking care of herself—but not at the expense of self-respect. If we cannot exhibit there under the "most favored nation" clause, we had better remain away.

The Ottawa correspondent of the Toronto *Empire* says:

A new cavalry saddle of the model of 1890 has been received at the militia stores from England, and was yesterday put up for inspection by Major-Gen. Herbert in the Militia Department. It embraces a number of improvements that take the eye of the cavalryman at once. The major-general examined the outfit critically, suggesting a change in the plan of fastening the wallets, besides one or two other improvements. After

these have been completed the saddle will be given a practical trial, and if found satisfactory a number of them will probably be ordered from England for distribution amongst the Canadian cavalry corps.

This is tiresome in the extreme. It may be well enough to import a model saddle, but with plenty of saddle manufacturers in Canada, the land of leather and skilful workmen, to have the saddles for the Canadian cavalry made in England is outrageous. This shows the amore pro patrie of the Minister of Militia.

An English contemporary prints the following tabular statement of the number of newspapers published in Great Britain at the present day as compared with 56 years ago, at a time when there was a stamp duty of 4d. on every printed sheet, a tax of 1s. 6d. on every insertion of an advertisement, and a crushing duty on paper:

	1836.	1891.
London newspapers.....	70	461
English provincial newspapers.....	83	1,302
Welsh.....	6	95
Scotch.....	53	206
Totals.....	212	2,064

The moral is that if you desire to make an article scarce, the best policy is to clap a tax on it.—*London Advertiser*.

Not necessarily. The *Advertiser* is constantly declaiming against the overproduction and consequent ruinous cheapness of certain kinds of protected articles, showing that the duty is the direct or indirect cause of the cheapness. If clapping a tax on an article makes it scarce, great pity that a heavy tax could not be clapped on such nonsense as the *Advertiser* is constantly guilty of.

At the recent meeting in Toronto of the Millers' Association, it was shown that the railroads discriminate against that interest in freight charges on flour and in favor of grain. In other words, the railroads charge more for hauling flour than they do for hauling an equivalent quantity of wheat. This is a repetition of a similar condition which prevailed a few years ago, when the duty upon American flour was actually less than the duty upon the quantity of wheat necessary to make the flour. In that instance the influence of the Canadian Manufacturers' Association was brought to bear upon the Government with the result that the duty upon flour was advanced from fifty cents per barrel to seventy-five cents. In the present instance we do not observe any great outcry on the part of so-called protection newspapers against the railroads. Perhaps it is because of a dislike to jeopardize the editorial passes. If the railroads do not correct this evil, and that very promptly, the sentiment will gain ground very rapidly that the Government should intervene. The milling interest should not be handicapped by such unjust discrimination.

There was lately delivered as old iron at Mr. Wm. Trotter's junk store in Galt, Ont., a veritable relic of the past, in the shape of a stove of the Dutch oven style, which is known to be over 100 years old. In 1797 the mother of Mrs. Wells, living near Hespeler, brought it with the family from Pennsylvania to Toronto, and up to a few years it was in constant use. The plates are very heavy, from nearly a half inch thick to close upon an inch, and the total weight is about 670 lbs. On

the front and rear lower plates are the British Coat of Arms, and on the other plates what has the appearance of the Prussian Eagle. The fire was placed in the large fire box below the oven and the heat radiated through two openings in the lower oven plate at each end of the inside of the stove, passing over a half-circle plate, inside of which was the oven proper. The various parts are beautifully cast, the heavy bottom, centre and top plates being flanged so as to hold the side and end plates in place without bolts and nuts. If this old stove could write the history of what has happened round it in its long days of usefulness, what a tale it could tell us of the doings of lives lived and closed, human joys and sorrows; but it is only a dumb evidence of the past century or more

When President Harrison issued his coercion proclamation a few days ago the *Toronto World* interviewed a number of business men and published their views on the subject. The following are the views of a dry goods man:—

Mr. Paul Campbell, of John Macdonald & Co.: "It is an aphorism and a true one 'that all excess is evil.' This adage can be truly applied to excessive protection. The resultance of a policy of excessive protection between two contiguous nations is constant irritation leading to bitterness and retaliation. We hope the common sense and Christianity of the two people will prevent its going any further, and that acts of enmity may be confined to the politicians. Protection in new countries on simple articles that can with moderate protection be manufactured to advantage is advisable and judicious—such as protection on cotton domestic goods—but when you attempt to protect everything and complex articles you get into trouble, and only give a Government a splendid opportunity to advance taxes on everything, raise enormous revenue and then squander the same, the hard savings of the people."

WHAT THEY SAY.

THE CANADIAN MANUFACTURER is in receipt of a number of letters from its patrons in which they say many kind words regarding its value as an advertising medium. Hear them:

M. J. TAYLOR, Mgr. } Dyestuffs, Chemicals, Oils, etc.,
DOMINION DREWOOD } TORONTO, Aug. 10, 1892.
AND CHEMICAL Co. }

We have great pleasure in stating that we consider the CANADIAN MANUFACTURER an A 1 medium for advertising our business, and feel that our money spent for the space we occupy is well invested.

J. M. SINCLAIR, Sec. Treas. } Mineral Wool Steam Pipe Covering.
CAN. MINERAL WOOL Co. } TORONTO, Aug. 20, 1892.

We advertise our mineral wool pipe and boiler covering in quite a number of papers, and can honestly say that we believe the CANADIAN MANUFACTURER gives us better returns than any other.

J. H. WALKER, Mgr., } Rubber Belting, Hose, Packing, etc.
CANADIAN RUBBER Co. } TORONTO, Aug. 12, 1892.

As continuous advertisers in the CANADIAN MANUFACTURER we heartily recommend it as one of the very best advertising mediums known to us.

GEO. W. SADLER, } Leather Belting, Mill Supplies, etc.
ROBIN & SADLER. } MONTREAL, July 22, 1892.

We have advertised in the CANADIAN MANUFACTURER ever since it was started in 1882, and consider it one of the best mediums we patronize. That it brings us trade we have not the slightest doubt, and we propose to keep our "ad." in it.

BUTTERFIELD & Co. } Manufacturers Taps and Dies, etc.
ROCK ISLAND, QUE., Aug 6, 1892.

THE CANADIAN MANUFACTURER was the first trade publication in

which we placed an "ad." of our tap and die business. That was in 1882, and we have continued it there ever since. This fact indicates the high esteem in which we hold it as an advertising medium.

C. G. SARGENT'S SONS. } Wool Washing Machines,
GRANITEVILLE, MASS., Aug. 22, 1892.

We are pleased to say that the CANADIAN MANUFACTURER, in which we advertise our Wool Washing Machine, is a good medium. You have had our "ad." for some years, and we shall probably continue it for some years longer.

W. H. BRISTOL, President, } Manufacturer Steel Belt Lacing,
BRISTOL MFG. Co. } WATERBURY CONN., Aug. 18, 1892.

ALTHOUGH we have not been with you long, we feel confident we are being well repaid for our advertisement in the CANADIAN MANUFACTURER.

MIDDLETON & MEREDITH. } Chemicals, Dye Stuffs, etc.
MONTREAL, August 11, 1892.

We have advertised our business in the CANADIAN MANUFACTURER for the past three years, and this is the best proof we can offer that we are satisfied with the results.

F. B. ROBB, Mgr., } Engines, Boilers, Machinery, etc.
ROBB ENGINEERING Co. } AMHERST, N.S., Aug. 15, 1892.

We think the CANADIAN MANUFACTURER a good medium for advertising, for the reason that it reaches the class of trade we try to reach. We think the paper worthy of support, and we give it what we can.

THE RATHBON Co. } Terra Cotta Fireproofing, etc.,
DESERONTO, ONT., Aug. 12, 1892.

We have pleasure in stating that we have used the advertising columns of the CANADIAN MANUFACTURER for several years past with good results.

S. O. GREENING, President } Mfrs. Wire Gds., Perforated Metals, etc.
B. GREENING WIRE Co. } HAMILTON, ONT., Aug. 13, 1892.

It is our settled policy to confine our advertising to trade journals, and in selecting the CANADIAN MANUFACTURER we are satisfied that we are in touch with a class whose trade we desire to maintain. As our business is constantly increasing, we are satisfied that your paper has accomplished its share in the benefit we derive from its use of it.

TORONTO CONSTRUCTION }
AND ELECTRIC SUPPLY Co. } Toronto, Sept. 1, 1892.

We have much pleasure in testifying to the value of the CANADIAN MANUFACTURER as a medium for reaching mill and factory owners throughout the country. We have used it with satisfaction in connection with that department of our business which seeks to trade with Canadian manufacturing interests.

COWAN & Co., } Engine and Machine Works.
"THE GALT FOUNDRY." } GALT, ONT., Aug. 17, 1892.

We have much pleasure in saying that we have been advertisers in the CANADIAN MANUFACTURER from its commencement with very satisfactory results. We regard it as a desirable medium through which manufacturers may place themselves before the probable consumers of their products.

GEO. C. HEINTZMAN, } Manufacturers Pianofortes.
HEINTZMAN & Co. } TORONTO, Aug. 30, 1892.

We first began advertising in the CANADIAN MANUFACTURER in 1882, and our "ad." has appeared in every issue since that time. We placed it there because we thought it would be to our interest to do so, and we have kept it there because we have found our anticipations fully realized. We consider our money well invested in advertising in it.

C. F. WHEATON, Secretary } Dodge Patent Wood Pulleys,
DODGE WOOD SPLIT PULLEY } Co. TORONTO, Sept. 2, 1892.

We have pleasure in stating that we have patronized the advertising columns of the CANADIAN MANUFACTURER for the past six years, and with very gratifying results. The introduction of our specialty has been done almost entirely through advertising, and we know of no medium which is entitled to a larger share of our gratitude.

W. H. BASFIELD. } *Mfrs. of Dies, Fine Machinery, etc.*
TORONTO, Aug. 30, 1892.

We have great pleasure in saying that we have been greatly benefited by our advertisement in the CANADIAN MANUFACTURER.

THE CANT BROS. Co. } *Mfrs. Woodworking Machinery*
GALT, ONT., Aug. 17, 1892.

We have great pleasure in testifying our appreciation of the CANADIAN MANUFACTURER, both as an exponent of the views of Canadian manufacturers, and also as an admirable medium in which to advertise their products.

F. E. DIXON & Co. } *Manufacturers of Leather Belting.*
TORONTO, Aug. 30, 1892.

We have advertised our business in the CANADIAN MANUFACTURER for many years, as we consider it an excellent medium for the purpose.

D. C. RIBOUT & Co. } *Patent Solicitors,*
TORONTO, Aug. 31, 1892.

We have advertised our business in the CANADIAN MANUFACTURER for a number of years, and it gives us pleasure to state that the results therefrom have been and are entirely satisfactory to us.

FETHERSTONHAUGH & Co., } *Patent Barristers and Solicitors,*
TORONTO, Sept. 1, 1892.

We have been advertising for over two years in the CANADIAN MANUFACTURER and find that, as a medium for reaching the manufacturers, it has fully come up to our expectations. We do a large business for some of the principal manufacturers in Canada as to patenting inventions, and we attribute the major portion of this business to our advertisement in this journal.

H. S. PELL, Secty. Treas. } *Steam Engines, Machinery, etc.,*
THE NORTHEY MFG. Co. } TORONTO, Aug. 31, 1892.

We have much pleasure in stating that we have advertised our business in the CANADIAN MANUFACTURER for several years, and that we renew our "ad." this year in full confidence that the returns from the same will evidence the efficiency of the medium.

THE TORONTO STAMPING Co. } *Stampers and Platers, Presses and Dies,*
TORONTO, Aug. 29, 1892.

We believe that the CANADIAN MANUFACTURER is a first-class medium through which to reach the manufacturing industries of Canada, and for this reason we advertise our business in it.

JOHN COWAN, President } *Manufacturers Malleable Iron Castings,*
OSHAWA MALLEABLE IRON Co. } OSHAWA, ONT., Aug. 12, 1892.

The able management of the CANADIAN MANUFACTURER, including the presentation of valuable articles on leading commercial topics, has no doubt contributed highly to its usefulness and the esteem in which it is held.

S. S. KIMBALL } *Manufacturers Safes, Vault Doors, etc.*
MONTREAL, Aug. 16, 1892.

I HAVE been much pleased with the CANADIAN MANUFACTURER during the short time my "ad." has been in it. Knowing that it goes to a class of busy people, I have been agreeably surprised at the large number of my correspondents who have mentioned it.

W. C. PHILLIPS, Mgr. } *Mouldings, Plate Glass, Mantels, etc.,*
COBBAN MFG. Co. } TORONTO, Aug. 12, 1892.

HAVING advertised in the CANADIAN MANUFACTURER for some years we have much pleasure in testifying to our appreciation of its value as an advertising medium.

NAPANEE CEMENT Co. } *Manufacturers Hydraulic Cement, etc.,*
DESERONTO, ONT., Aug. 12, 1892.

We have much pleasure in stating that we have found the CANADIAN MANUFACTURER a useful advertising medium, bringing us directly in contact with manufacturers and others who are consumers of the goods that we have for sale.

PETER HAY, Proprietor. } *Manufacturers Machine Knives,*
MACHINE KNIFE WORKS. } GALT, ONT., Aug. 16, 1892.

I HAVE been an advertiser in the CANADIAN MANUFACTURER for some eight years and I am satisfied with it as an advertising medium.

D. W. McLAREN. } *Manufacturers Leather Belting, etc.*
J. C. McLAREN BELTING Co. } MONTREAL, July 14, 1892.

We are thoroughly satisfied with the advantages we have received through advertising in the CANADIAN MANUFACTURER during the past five years. We consider the information contained in it of great value to all interested in reaching the textile manufacturers.

JOHN COWAN, President, } *Manufacturers Malleable Castings,*
OSHAWA MALLEABLE IRON Co. } OSHAWA, ONT., Aug. 12, 1892.

For several years we have availed ourselves of the opportunity of using the CANADIAN MANUFACTURER as an advertising medium in the prosecution of our business, and we have reason to believe that the results have been quite up to our expectations.

WM. H. FROST, Proprietor } *Manufacturers Malleable Iron Castings*
SMITH'S FALLS MALLEABLE } SMITH'S FALLS, ONT., Aug. 19, 1892
IRON WORKS.

I BEG to say that the CANADIAN MANUFACTURER has been a good investment as an advertising medium. I believe that having my "ad." in its pages continuously, through its large circulation among the users of goods in my line, I have derived direct benefit from it. I wish it every success, believing that we need just such a paper in this country.

MCARTHUR, CORSEILLE & } *Manufacturers of Paints, Oils, etc.*
Co. } MONTREAL, July 16, 1892.

HAVING been subscribers to and advertisers in the CANADIAN MANUFACTURER ever since its establishment we have much pleasure in testifying that we regard it as a most satisfactory medium through which to advertise our business.

T. W. BARRETT, Secretary, } *Iron Shipbuilders, Steam Engines,*
POISON IRON WORKS Co. } *Boilers, Machinery, etc.*
TORONTO, Aug. 12, 1892.

We take pleasure in testifying to the value of the CANADIAN MANUFACTURER as an advertising medium and to its enterprise as a live trade paper. We are gratified at the financial results we have realized from having our business card in it.

JOHN HEARD & Co. } *Mfrs. Carriage and Wagon Woodwork*
St. THOMAS, ONT., Aug. 24, 1892.

We have been subscribers to the CANADIAN MANUFACTURER for many years, and we wish to express our high appreciation of the excellent work it is doing in behalf of the manufacturing industries of Canada, and every manufacturer, small or large, should support it.

R. W. ELLIOT, } *Manufacturing Chemists,*
ELLIOT & Co. } TORONTO, Aug. 11, 1892.

As a constant subscriber and reader of the CANADIAN MANUFACTURER, I wish to bear cheerful testimony to the great value of the CANADIAN MANUFACTURER as a means by which manufacturers can exchange thoughts, supply wants, and keep abreast with the movements of the day.

H. R. RIBOUT. } *Railway Contractors Supplies,*
MONTREAL, July 14, 1892.

I AM much pleased with the CANADIAN MANUFACTURER, and find it very valuable to me in my business.

SPECIAL ADVERTISEMENTS.

Advertisements will be accepted for this location at the rate of two cents a word for the first insertion, and one cent for each subsequent insertion.

A YOUNG man who has had several years' experience in book-keeping, and who for the past three years has had control of the office and assisted in the management of a manufacturing institution, will be open for a situation October 1st. Owns and operates Remington typewriter. Best of references. Address, "Bookkeeper," care CANADIAN MANUFACTURER Toronto.

The Literary Digest, published by Funk & Wagnalls, New York, \$3 a year is a well printed, twenty eight page weekly which is designed to be a compendium of the thought of the age. It well fulfils its purpose. It gives judicious selections from leading organs of public opinion of Europe and America, and numerous quotations from the periodical press on current topics of the time. We find its selections much more varied and of more general interest and value than those of the *Review of Reviews*.

Good Housekeeping for September has the opening of two serial articles, "Woman's Work at the Columbian Exposition," and "Touching the Toilet." In addition there are continuations of the series entitled, "Many Meals for Many Millions," "The Expert Waitress," "Herbs and Simples," "The Household Laundry," and "The Food of the People." These, however, form but a part of the generous table of contents, which embraces stories, poetry and miscellaneous articles, as well as those which relate more directly to the work of woman in the household. It is a good number of an admirable publication, and one which is enjoying a well-deserved popularity. Clark W. Bryan & Co., publishers, Springfield, Mass.

Outing for September is refreshing and healthful in influence as the first pure breeze of brave old Autumn. The reading matter, as usual, mainly devoted to sport, pastime and travel, is most interesting, and the illustrations, always a strong feature of *Outing*, are better than usual. The contents are as follows:—"Moeran's Moose," by Ed. W. Sandys; "Vacation Notes of a Canoeist," by C. Bowyer Vaux; "Saddle and Sentiment," (continued), by Wenona Gilman; "How We Went Blundering," by Jean Porter Rudd; "The Griawold Mystery," by Wm. Hinckley; "Hammer Throwing," by Malcolm W. Ford; "Shore-bird Shooting in New England," by H. Prescott Beach; "Harry's Career at Yale," (continued), by John Seymour Wood; "From the German Ocean to the Black Sea," (concluded), by Thomas Stevens; "Reminiscences of Irish Sport," "Military Schools of the United States," (concluded), by Lieut. W. R. Hamilton, U.S.A.; "September Rides," by Jessie F. O'Donnell; "Around the World with Wheel and Camera," (continued), by Frank G. Lenz; "Fishing a la Tourilli," by N. B. Winston, and the usual editorials, poems, records, etc. The *Outing Co.*, 239 Fifth Avenue, New York City.

The September *Wide Awake* is a bright, descriptive and story-telling number, full of strength and excellence. Prominent among its illustrated papers is a description of Old Plymouth and Plymouth Rock as they look to young tourists, under the title of "A Red Letter Day," profusely illustrated. A paper by S. G. W. Benjamin on "Our Lighthouses and Lightships," is full of interesting material about these coast guardians. Sophie Swett has a capital boys' story, "Tafferton of New York," told in her customary vein; "Christyann's Rezavoy Picnic" is by Mary Hartwell Catherwood, and is as bright and homely as are all her character stories; Sophie May has a real girl story, "Patient Kysie," with the real home flavor; and Theron Brown commemorates this bi-centennial year of the Salem Witchcraft by a strong and stirring story of life at that troublous time, "John Alden's Peril." Alice Williams Brotherton contributes a poem, "My Princess." Jennie E. Thompson has a second paper about our "Summer Sweethearts" the birds of our farms and dooryards; Edith M. Thomas has a bit of verse, "What the Lambs Say"; Francis Randall has a humorous poem, "Condensed Animals." Mrs. Tru's cute "Elf" finds the philosopher's stone. Lt.-Col. Thorndike tells about his "Night with a Chinese Prefect" and the fine serials by Kirk Munroe and Kate Upson Clark keep up their brightness unchanged. Price, twenty cents a number, \$2.40 a year. D. Lothrop Company, Boston.

The September *Popular Science Monthly* opens with the concluding part of Dr. Andrew D. White's paper on Geography, in his "Warfare of Science" series. The disbelief of the medieval theologians that men could live on the opposite side of the globe, is the chief subject of this chapter. Dr. Charles C. Abbott contributes an illustrated article testifying to the skill of "The Delaware Indian as an Artist," and puts in evidence figures of carved gorgets, masks, and various other objects. The number contains also one of Prof. Huxley's trenchant papers, on "The Decline of Bibliolatry," in which the conviction is expressed that a merely nominal belief in the Bible is rapidly displacing the old practical belief. Prof. J. S. Kingsley describes "The Marino Biological Laboratory," at Woods Holl, giving pictures of its building and of the interiors of some of its work-rooms. Under the title "Infectious Diseases: Causation and Immunity," Dr. G. M. Sternberg, U.S.A., tells what has been learned in this field up to date. Prof. Joseph Jastrow presents a "Further Study of Involuntary Movements,"

supplementing an earlier paper on this subject. The trouble at the Carnegie mills gives timeliness to Conrad Reno's reply to Edward Atkinson, on "The Wage-contract and Personal Liberty. There is an interesting account of "Mica and the Mica Mines," by C. Hanford Henderson. Some very strange occurrences are described in Mr. William A. Eddy's paper on "Incalculable Accidents." M. Jules Rochard writes on "Tobacco and the Tobacco Habit;" M. Charles Henry on "Odors and the Sense of Smell;" and Frederik A. Fernald describes recent "Changes in Chemical and Geographical Words," that have been made in the interest of simplicity and uniformity. New York D. Appleton & Company. Fifty cents a number, \$5 a year.

"Why Young Men Defer Marriage," is the subject of an interesting article on this truth-asserting topic, by John Lambert Payne, in the September *Ladies Home Journal*. The domestic problem concerning the relations existing "Between Mistress and Maid" is intelligently discussed by Harriet Prescott Spofford, Mrs. Lyman Abbott, Helen S. Conant and Christine Torhune Herrick, as is "Getting Home from the Country," by Helen Jay. The wife of Alexandre Dumas is the subject of a sketch, with portrait, by Lizey Hamilton Hooper, and Laura Grover Smith gives a description of a unique firm of women lawyers in Milwaukee. Maude Haywood contributes a special illustrated paper on "The Chicago Society of Decorative Art," and Walter H. Barrett writes comprehensively of "Women and Life Insurance." The Editor speaks about the restlessness of the American man and its effect upon women, and Foster Coates tells of "Women in Journalism." The fiction of the number includes the continuation of Miss Magruder's story, "A Live Ember," a short story, "A Fair Fee," by Cornelia Rathbone, illustrated by Frank O. Smith, and "A Princess's Wolf Hunt," by the Marquise de Fontenoy. A paper by Isabella M. Aitkin upon "The Care of the Hands," will be found valuable to women, as will Miss Parlea's "All About the House." The Rev. T. De Witt Talmage writes of "Art in the Old World," and Mrs. Lyman Abbott discusses many topics intelligently and well. Robert J. Burdette writes refreshingly of "Home, Sweet Home," and Mrs. Mallie gives some "Hints to Elderly Women." The always interesting departments by competent editors conclude a number which is more than usually attractive, and one that cannot fail to please its thousands of readers. The *Ladies Home Journal* is published by The Curtis Publishing Company, of Philadelphia, for ten cents a number and one dollar per year.

The September *Scrubner* contains the unusual number of seven elaborately illustrated articles. It is well known that the late Samuel J. Tilden bequeathed his great fortune to trustees, with the intention of founding in New York a great library—confiding all details to the discretion of the three trustees whom he selected, Messrs. John Bigelow, Andrew R. Green and George W. Smith. Mr. Bigelow, one of the trustees, has decided to publish in this number of the *Magazine*, under the title "The Tilden Trust Library; What Shall It Be?" the facts concerning Mr. Tilden's wishes as to the details of the plan, and also a most important proposal for still carrying out a large part of it by the erection of a great library building in the very centre of New York. The scheme, with its elaborate illustrations, is one of the most interesting ever laid before the public. "The Last of the Buffalo," Mr. George Grinnell's article, is full of a true sportsman's feeling, and recalls with picturesque vividness the days when the buffalo were found on the great plains in unnumbered thousands. The illustrations, by Ernest E. Thompson and Otto H. Bacher, are particularly fine. Miss Isabel F. Haggood writes of the Nevsky Prospekt in the sixth article on "The Great Streets of the World," and gives a very clear impression of its characteristic aspects, and the historical and personal associations of Russia's chief city. Mr. W. C. Brownell contributes the first of three articles on French Art, all to be illustrated. There has always been a special and romantic historical interest in the Pueblo Indians. Mr. Charles F. Lummis, who has lived a number of years at the Pueblo of Isleta, writes with sympathy and enthusiasm of these Indians in an article on "The Indian who is not Poor." In close relation with other articles on practical forms of philanthropy, which have appeared in *Scrubner's*, is Mrs. Frederic R. Jones's paper on "The Education of the Blind." She traces the history of the various methods that have been devised for helping the blind to understand and know of the outside world, and with the aid of novel illustrations shows the wonderful progress that has been made in this direction. The "Historic Moment" this month is "The Attainment of the Highest North," by Sergeant, now Lieutenant, D. L. Brainard, of the Greely Expedition, who, with Lieutenant Lockwood and the Eskimo Thorlip, reached the most northern point ever touched by man.

* 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 July 29th to August 4th, 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.

- 39,520 Grain meter, J. Henry, et al, July 29th.
- 39,521 Railroad tie, U. K. Hoffmeier, July 29th.
- 39,522 Washing machine, E. L. Mabee, July 29th.
- 39,525 Apparatus for preventing snoring, A. Mosterts, July 29th.
- 39,526 Gas and gasoline engine, B. C. and E. Z. Vanduzen, July 29th.
- 39,527 Screw-propeller, C. Myers and M. Wells, July 29th.
- 39,528 Paper box, E. B. Eddy Co. (Ltd.), July 29th.
- 39,529 Ballot holder, W. F. Wilkins and F. England, July 29th.
- 39,530 Construction of fireproof building, United States Fire-Proofing Co., July 29th.
- 39,531 Spade harrow, J. Drader, July 29th.
- 39,532 Cigarette machine, The Bohls Cigarette Machine Co., July 29th.
- 39,534 Car brake and bumper, L. G. Arnold, July 29th.
- 39,535 Snow plough, M. Szarbuowski, July 29th.
- 39,536 Machine for ruling, perforating, printing, numbering and severing web paper, J. Leilly, July 29th.
- 39,537 Friction coupling, A. Schroeder, July 29th.
- 39,538 Calking for horse shoes, F. & J. Eulenfeld, July 29th.
- 39,539 Pickling meat, fishes, etc., J. Fey, July 29th.
- 39,540 Piling and removing machinery for coal, etc., J. M. Dodge, July 29th.
- 39,541 Auxiliary fire alarm, J. P. McMahon, July 29th.
- 39,542 Cutting machine, J. Erlenwein, July 29th.
- 39,543 Bicycle, F. J. H. Hazard, July 29th.
- 39,544 Sounding boards for pianos, F. Kaiser, July 29th.
- 39,545 Condenser for surfaces, G. Horner, July 29th.
- 39,546 Apparatus for removing piles of coal, J. M. Dodge, July 30th.
- 39,547 Steam generator, J. J. Thornycroft, July 30th.
- 39,548 Filter, E. M. Knight, July 30th.
- 39,549 Manufacture of beer, C. F. Lawton, July 30th.
- 39,550 Do.
- 39,551 Dental engine, C. H. Seeger, July 30th.
- 39,552 Gas apparatus, J. W. Tallmadge, July 30th.
- 39,553 Pessaries, J. S. McCants, July 30th.
- 39,554 Production of printing for use of blind, F. W. Smith, July 30th.

- 39,556 Soldering machine, Wehrlin, July 30th.
- 39,558 Store service apparatus, W. R. Cole, July 30th.
- 39,559 Bit-stock, L. McMarsh, July 30th.
- 39,560 Manufacture of metal tubes for use in construction of velocipedes, J. Earle and G. Bourne, July 30th.
- 39,561 Mill, J. H. Pendleton, July 30th.
- 39,562 Nailing machine, W. S. Doig, July 30th.
- 39,563 Clothes drier, J. F. Wynkoop, July 30th.
- 39,564 Mode of advertising, H. T. Martin, July 30th.
- 39,565 Rolling and expanding metal tubes, T. L. Barraclough, July 30th.
- 39,566 Shaping, finishing and flanging metal bodies for barrels and other similar vessels, T. L. Barraclough, July 30th.
- 39,567 Automatic changing tablets on post boxes, etc., J. Pape and M. Wermann, July 30th.
- 39,568 Box nailing machine, W. S. Doig, July 30th.
- 39,569 Desiccation of peat, J. M. A. Gerard, July 30th.
- 39,570 Steam generator, J. J. Thornycroft, July 30th.
- 39,571 Machinery for handling coal, J. M. Dodge, July 30th.
- 39,572 Self-propelling hobby horse, M. Bohlig, July 30th.
- 39,573 Gas lamp, F. Stellweg, July 30th.
- 39,574 Water motor, J. H. Hagerty, July 30th.
- 39,575 Making envelopes and placing enclosures therein, The National Mailing Machine Co., July 30th.
- 39,576 Decorticating and disintegrating grain, A. Vansteenkiste, July 30th.
- 39,577 Steam generator, J. A. Snee, et al, July 30th.
- 39,578 Method for producing plastic ornaments on profiled borders, etc., Jean Heckhausen & Weics, July 30th.
- 39,579 Manufacture of ornaments upon continuous wooden blocks or beams of suitable length cut transversely, or on the cross and inlaid, veneered or otherwise prepared, and apparatus therefor, O. Gratzler and H. Schwarz, July 30th.
- 39,580 Belt fastener, The Steel Belt Fastener Co., July 30th.
- 39,581 Stuffing and finishing leather, V. Brosseau, July 30th.
- 39,582 Compensator for signal rods, E. Dooroy, et al, July 30th.
- 39,583 Improvements relating to skates, parts of which are also applicable to snow shoes, and other adjuncts to be applied to the feet, B. Hatschek, July 30th.
- 39,584 Burning hydro-carbon or other oils for lighting and heating purposes, G. Poso, et al, July 30th.
- 39,586 Car coupling, J. Poffenburger, July 30th.
- 39,587 Cultivator, R. Sylvester, August 1st.
- 39,588 Hay loader, C. C. Jewett, August 1st.
- 39,589 Steam generator, C. D. Mosher, August 1st.
- 39,590 Target, J. Belsh, August 1st.
- 39,594 Pulp digester, W. H. Howell, August 1st.
- 39,595 Furnace and treatment of refractory ores, C. J. Fauvel, August 1st.
- 39,597 Cultivator, S. Gasser, August 1st.
- 39,598 Bed pan, E. Phillips, August 1st.
- 39,599 Skylight lifter, W. Trebilcock, August 1st.
- 39,600 Shoe slugging machine, S. M. Cutter, August 1st.
- 39,601 Door hanger, W. B. Pullman, August 1st.

- 39,602 Ice cream freezer, H. W. Atwater, August 1st.
 39,603 Wire stretcher, H. J. Rohr, August 1st.
 39,604 Car axle, H. P. Willard, August 1st.
 39,605 Hay rack, H. S. Hoy, August 1st.
 39,606 Mailing case, G. J. Johnson, August 1st.
 39,607 Grain drier, F. H. C. Moy, August 1st.
 39,608 Spring tooth cultivator, W. Coulthard, August 1st.
 39,609 Claw clip, M. J. Scobio, August 1st.
 39,610 Filtering faucet, H. H. Luso, August 1st.
 39,611 Lime slacking machine, A. R. Miller, August 1st.
 39,612 Receptacle for preserved meat, D. Rylands, August 1st.
 39,613 Gas attachment for cooking stoves, R. Bigley, August 1st.
 39,614 Making cylindrical boxes, G. W. Bradley, August 1st.
 39,615 Balance lock for waterway, C. N. Dutton, August 1st.
 39,616 Repeating mechanism for watches, A. W. Matthaei, August 1st.
 39,617 Heater, R. Bigley, August 1st.
 39,619 Preventing alteration of amounts of negotiable instruments and documents, G. D. Edwards, August 1st.
 39,620 Tea kettle, J. Black and F. C. A. Natus, August 1st.
 39,621 Means for increasing the flow of natural gas, J. W. & A. B. Strouse, August 1st.
 39,622 Travelling lawn sprinkler, J. B. Fellows and F. B. Osgood, August 1st.
 39,623 Air compressor, W. A. Rohr, August 1st.
 39,625 Producing illusory dramatic effects, J. W. Knell, Aug. 1st.
 39,626 Gas burner, P. Lesser, August 1st.
 39,627 Grinding, crushing and disintegrating grain, The Central Cyclone Co. (Ltd.), August 1st.
 39,629 Dust collector, The Edward P. Allis Co., August 2nd.
 39,630 Stove pipe fastening, J. H. Johnston and G. Purvis, August 2nd.
 39,631 Device for holding a wheel on its axle, O. Jacob and H. A. Beatty, August 2nd.
 39,632 Endoscopic instrument, J. W. Daily, et al, August 2nd.
 39,634 Wash stand, N. O. Bond, et al, August 2nd.
 39,635 Ice cream freezer, C. G. & W. J. Shepard, August 2nd.
 39,636 Car door, A. B. Pullman, August 3rd.
 39,637 Manufacture of bricks, W. Johnson, August 3rd.
 39,638 Hydraulic travelling crane, J. Graham and E. Graves, August 3rd.
 39,640 Washing machine, R. & J. Nash, August 3rd.
 39,641 Skate, T. H. McQuown, August 3rd.
 39,642 Mechanism for stopping and starting tram cars, etc., W. Giffard, August 3rd.
 39,643 Egg tray machine, W. S. Lowe, August 3rd.
 39,645 Shear, M. L. Tolbert, August 3rd.
 39,646 Manufacture of salt, J. Runciman, August 3rd.
 39,649 Band cutter and feeder, W. Plowright, August 3rd.
 39,651 Vessel for cooking, F. Froderking, August 4th.
 39,652 Bashing, notching and stamping bread, J. J. House, August 4th.
 39,653 Mechanism for railway brake, L. Roberts and J. Wheeler, August 4th.
 39,654 Contrivance fitted on cutters to prevent the unauthorized opening of drawers, H. Bray, August 4th.
 39,656 Solvent compound, W. Resd, August 4th.
 39,657 Hot air furnace, M. Koehler, August 4th.
 39,658 Manufacture of cigars, M. Lessor, August 4th.
 39,659 Boiler furnace, E. A. Wheeler, August 4th.
 39,660 Wheel of velocipedes and other carriages, H. J. Swindley, August 4th.
 39,661 Filtering machine, Crocker Filtering Co., August 4th.
 39,662 Filtration of water, Crocker Filtering Co., August 4th.
 39,663 Manufacture of gelatine capsules, The Kreibiel Capsule Co., August 4th.
 39,664 Material suitable for surgical bandage, G. C. W. Breiger, August 4th.
 39,665 Aerial navigating machine, F. W. Zimor, August 4th.
 39,666 Bank punch, A. V. Lano, August 4th.
 39,667 Cabinet for duplicating apparatus or slab, M. A. Lovy, August 4th.
 39,668 Manufacture of velvet ribbons, W. Romy, August 4th.
 39,669 Typewriter, E. P. Sherwood, August 4th.
 39,670 Opening and closing of cocks, etc., O. Lowe, August 4th.
 39,671 Extensible table, J. F. Wiggers, August 4th.
 39,672 Disinfecting apparatus, F. Andre, August 4th.
 39,673 Case or mould filling apparatus, T. C. Batchelor, August 4th.
 39,674 Securing the lids of collins, F. Schmidt and H. Wolff, August 4th.
 39,675 Tramway brake, F. Adler, August 4th.
 39,676 Seeding machine, J. Noxon, August 4th.
 39,677 Bottom foundation or backing for bedsteads, etc., E. Dimant, August 4th.
 39,678 Regulating the supply of liquid hydro carbon to lamp, H. Galopin, August 4th.
 39,679 Pneumatic wheel tire, K. Lohmann, August 4th.
- ELECTRICAL.
- 39,555 Supplying electricity to electrical vehicles, F. Wynne, July 30th.
 39,557 Electric time call, R. Varley, et al, July 30th.
 39,585 Electric transformer, M. Von Dolivo-Dobrowolsky, July 30th.
 39,592 Magneto-electric ignitor, L. G. Woolley, August 1st.
 39,596 Electric cable, T. Guilleaumo, August 1st.
 39,618 Device to be worn upon the person for obtaining voltaic effect, P. Heskier, August 1st.
 39,624 Electric battery, C. Greenwood and W. W. Moore, August 1st.
 39,628 Electrically actuated clock, F. L. Gregory, August 2nd.
 39,639 Electrical heater, C. C. Rich, August 3rd.
 39,644 Electric heating apparatus, M. W. Dewey, August 3rd.
 39,655 Electric light pole, O. Spanner, August 4th.
- SCIENTIFIC PROCESSES.
- 39,523 Manufacture of aerated or gaseous liquids and for filling the same into bottles, Channery & Co., July 29th.
 39,524 Production of chlorine and caustic soda, The Caustic Soda and Chlorine Syndicate (Ltd.), July 29th.
 39,533 Sterilizing apparatus, A. Regel, July 29th.
 39,591 Extracting of metals from ores, J. B. Alzugaray, August 1st.
 39,593 Making bi-sulphate of lime, W. H. Howell, August 1st.
 39,633 Obtaining copper and other metals from solutions of the salts of same, E. Viarengo and E. Casper, August 2nd.
 39,647 Manufacture of explosives, S. H. Emmens, August 3rd.
 39,648 Do.
 39,650 Manufacture of illuminating gas, J. H. Fergusson, August 3rd.

MR. JAMES H. FOSTER, of San Francisco, in a recent newspaper interview described the great flume which his firm has constructed in Southern California. It extends from the timber region on the mountain, 5,000 feet above the sea level, to Fresno, fifty-four miles distant, and 4,700 feet lower. Mr. Foster said: "The process of building our big flume may be of interest to you. We built a dam sixty feet high at the mills up in the mountains, and flooded 1,000 acres. The flume was then started. It is V-shaped, with size varying from three to six feet in height. The timber for its construction, about 11,000,000 feet, was floated down the flume as we proceeded. At some places it rests on wooden trestles 160 feet high; at others it runs through cuts twenty feet deep. At one place it is suspended upon wire cables, for spans of 500 feet, over a canyon of great width and depth. It is fifty-four miles long; it took two years to build it, and it cost \$260,000. The supply of water to it is inexhaustible, and the transportation which it effects rates \$11 for 1,000 feet railway freightage. It has a capacity of 250,000 feet per day, is always ready, never freezes, and delivers its freight in eight and a half hours from the mill to Fresno, fifty-four miles away. It is the longest flume in the world, and at some points the water in it travels at the rate of thirty miles per hour."

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.

THE OPTIMATES: What is it? It will be on exhibition at the Toronto Fair.

LAWRENCE'S lumber mill at Watford, Ont., was destroyed by fire Aug. 27th; loss about \$8,000.

MR. H. SYMONS has established an iron foundry at Brantford, where he will do general castings.

THE capital stock of the Sicily Asphaltum Paving Company of Montreal, has been increased from \$30,000 to \$60,000.

MESSRS. MACGREGOR, GOURLAY & Co., Galt, Ont., have just shipped a complete outfit of planing mill machinery to Costa Rica.

MESSRS. WEIR & MORRISON, Westville, N.S., have just built and equipped a large foundry for the manufacture of stoves, hollow-ware, etc.

THE Dominion Construction Company has been incorporated at Montreal with a capital stock of \$500,000 to contract for the construction of public and other works, etc.

THE Patrons' Elevator, Milling and Supply Company has been incorporated at Boissevain, Man., with a capital stock of \$48,000 and will erect a mill, elevator, etc., at that place.

THE British America Starch Company, Brantford, Ont., is doing a thriving business. They inform us that their factory has been in full operation day and night ever since November last.

THE Althouse Automatic Car Coupler Company of Toronto is being incorporated with a capital stock of \$100,000 to manufacture

the automatic car coupler patented by Mr. J. Althouse, of Waupun, Wisconsin.

THE factory of the American Rattan Company, Toronto, was gutted by fire last week, causing damage to the extent of about \$40,000. A beautiful exhibit intended for the Toronto Fair was destroyed.

THE Windsor Patent Brush Company has been incorporated at Windsor, Ont., with a capital stock of \$25,000 to manufacture brushes, brooms, etc. W. S. McDonel, J. H. Whitmore and J. S. Edgar are interested.

THE J. D. King Manufacturing Company, Toronto, late Messrs. J. D. King & Co., are establishing a branch factory at Levis, Que., for the manufacture of boots and shoes for which to supply their trade in that section.

THE Brantford Carriage Company, Brantford, Ont., are building an addition to their works which will be used as a paint shop. They will also erect another addition to their factory this season to accommodate their increasing business.

THE Toronto Stamping Company, Toronto, are manufacturers of suspender buckles, clasps, wire rings, etc. They do special stamping in all kinds of sheet metal; and manufacture presses and dies to produce any article in sheet metal.

MR. H. W. PETRIE, Toronto, has just shipped a car load of machinery to Golden, B.C., and another car load to Comox, B.C. He has received an order for a large quantity of machinery for the Calgary Brewing and Malting Company, Calgary, N.W.T.

THE Dominion Electrical Manufacturing Company has been incorporated with a capital stock of \$40,000, with headquarters in Toronto, to manufacture electric supplies, machinery, etc. Mr. Harvey Cortland, Toronto, electrician, is an incorporator.

MESSRS. JOHN HEARD & Co., St. Thomas, Ont., manufacturers of fine carriage and wagon woodwork, announce in our advertising pages that they make a specialty of spokes and all kinds of bent goods for carriages, buggies, wagons, sleighs, cutters, etc.

MESSRS. ARSCOTT & Co., late of Messrs. Hyman & Co., London, Ont., have purchased the old Parson tannery at Brenton, N.B., and are entirely remodeling it. They expect to be in running order this month, when they will be turning out about 800 hides a week.

THE

OPTIMATES

Will be Exhibited at Toronto Fair.

THE Verity Plow Company, with headquarters at Brantford, Ont., has been incorporated with a capital stock of \$150,000 to take over the business of Messrs. W. H. Verity & Sons, Exeter, Ont., and continue the manufacture of plows, agricultural implements, etc.

MESSRS. W. H. BASFIELD & Co., Toronto, have manufactured a lot of special machinery which they will exhibit in operation at the Toronto Fair, manufacturing some novelties in the way of mechanical toys. Among these will be a flying machine, and the Gold Mine puzzle.

MESSRS. BRODIE & Co., proprietors of the Hespeler Woolen Mills, Hespeler, Ont., who recently made some increase in their factory facilities by the addition of a new boiler room and four new boilers, are now increasing their power by the addition of two more boilers.

THE Toronto Construction and Electrical Supply Company, Toronto, are putting an electric plant into the paper mills of Messrs. Wm. Barber & Bro., at Georgetown, Ont., with which their wood mill will be driven in the day time, the current to be used at night for lighting the works.

THE Metropolitan Rolling Mills at Montreal, owned by Messrs. Abbott & Co., were destroyed by fire, Aug. 24th; loss about \$125,000. The fire originated in the horseshoe department of the works, and 125 hands are thrown out of employment. The works will be reconstructed immediately.

MESSRS. LAING, RITCHIE & Co., Essex, Ont., have begun the manufacture of pumps, hay presses, ladders, etc., having taken over that part of the business of the Industrial Pump & Machine Company. Mr. C. E. Naylor will continue the machinery and iron-working part of the latter concern.

THE James Robertson Company has been incorporated with a capital stock of \$750,000, with headquarters at Montreal, to take over the business of Messrs. James Robertson & Co., and continue the manufacture of saws, barb wire, lead pipe, shot, white lead, paints, etc. This large concern have factories in Montreal, Toronto, Winnipeg, Man., and St. John, N.B.

THE Consumers' Cordage Company may soon require the services of a manager at their cordage factory at Brantford, Ont., as Mr. Chalcraft, who has been filling that position, is expected to take charge of the new cordage works of the Farmers' Binder Twine and Agricultural Company about being started in that place.

THE Montreal Shareholder tells of the "External Journal Horse Pulley Company of Toronto," being incorporated in this city with a capital stock of \$50,000. And now we want to know what sort of a thing an external journal horse pulley is. Mr. C. T. Brandon is interested in the External Journal Loose Pulley Company.

MESSRS. A. B. JARDINE & Co., manufacturers of blacksmiths' machinists' and boilermakers' tools, Hespeler, Ont., call attention to their portable drilling machine for repairing machinery, which, they explain, can be applied to the frame of a machine, or anywhere else where a hole may be required. It bores at any angle.

THE Erie Glass Company of Canada has been incorporated with a capital stock of \$50,000 with headquarters in Toronto. This company will erect glass works at the south end of the Welland Canal, where they have access to natural gas wells which will supply them abundance of fuel. Mr. James Lydiatt, Toronto, is at the head of the concern.

THE Verity Plow Company, recently incorporated to take over the business of Messrs. W. H. Verity & Sons, of Exeter, Ont., have obtained the plant recently occupied by Messrs. J. O. Wisner, Son & Co., Brantford, Ont., and expect to have their new works in full operation by October 1st, starting up with fifty hands in the manufacture of plows, agricultural implements, etc.

MESSRS. A. M. NEWLANDS & Co., Galt, Ont., are putting considerable additional machinery into their factory, including three flat knitting machines for making jersey cloth and shoe and glove lining, and will soon be in shape for filling all orders with despatch. For several months they have been running their factory to its full capacity, but unable to keep up with orders. The improvements they are making will enable them to do so.

THE Canadian Mineral Wool Company, Toronto, will make an exhaustive exhibit of their goods at the Toronto Fair. The exhibit will be particularly interesting to householders in view of the fact that the above company are now turning out a covering specially adapted for use in private residences and the application of which

FETHERSTONHUGH & CO.

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Head Office, Canadian Bank of Commerce Building, Toronto.

TELEPHONE 2589.

CABLE ADDRESS "INVENTION, TORONTO."

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CIVIL ENGINEER AND ARCHITECT.

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

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AND FOREIGN

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150 Top Flat Carding Engines. American make and in first rate order, with Railway Heads, etc., all complete.

Montreal Cotton Company

VALLEYFIELD, QUE.

brings about a reduction in the consumption of coal of over one-third.

The Farmers Binder Twine and Agricultural Implement Manufacturing Company is a new concern at Brantford, Ont., who will engage in the manufacture of binder twine. Mr. Frederic Chalcraft, who was manager for the Brantford Cordage Company for five years, and for the Consumers' Cordage Company at Brantford for two years, will manage for the new company, whose factory will be in operation about the beginning of the ensuing year.

Mr. W. H. White, of California, has invented a vehicle hub which has been patented in Canada, the manufacture of which will probably be begun in this country at an early day. It is described as being composed of but three pieces, or parts, in which is included an ornamental cap which covers the end of the axle, thus excluding dirt and sand, and hides from sight the blackened grease always so unsightly and objectionable. The arrangement of this hub is such that the lubricant can be applied without removing the wheel or soiling the hands; and any spoke may be removed from the wheel and another replaced without removing the tire, cutting off bolt heads or digging out old spoke ends from the hub sockets.

Lawson Non-Explosive Boiler

We have arranged with Daniel T. Lawson for the manufacture of his Non-Explosive and Self-Cleaning Steam Boilers, under patent issued September 12, 1889, by the Dominion of Canada, for improvements in Steam Boilers. These Boilers are proven by actual tests to be absolutely non-explosive, to yield greater power with less fuel than any other, and to be entirely exempt from incrustation with the use of the worst water.

John Doty Engine Co., Ltd.

Toronto, August 19, 1892.

THE Whitman & Barnes Mfg. Co.

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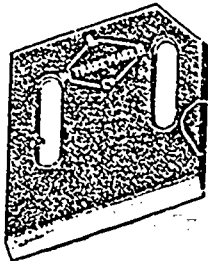
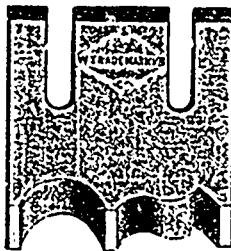
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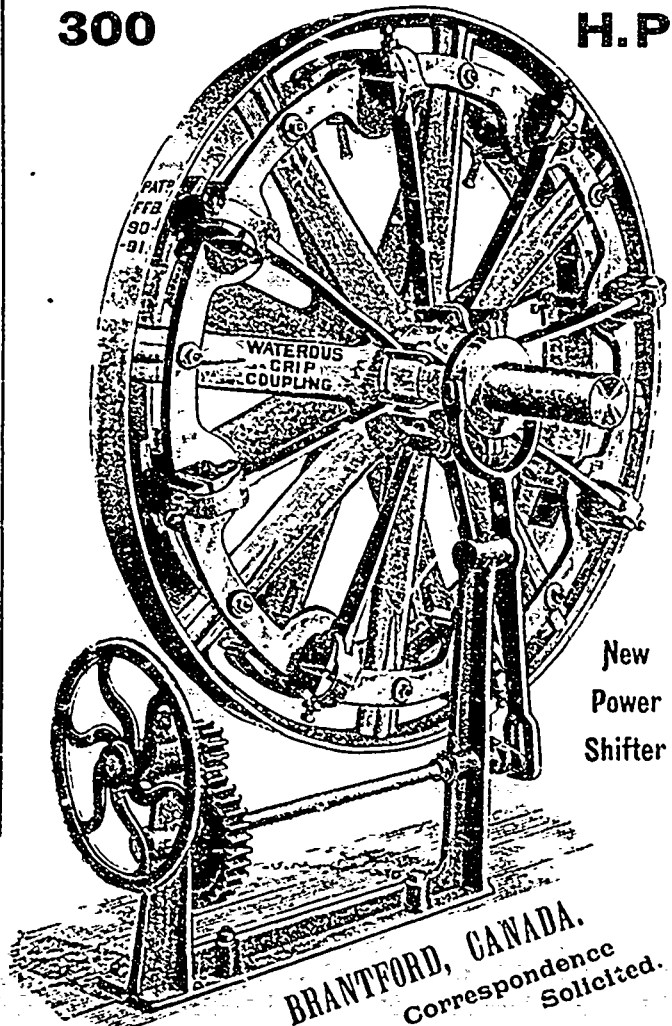
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BROCKVILLE, ONTARIO, CAN.

300

H.P.



BRANTFORD, CANADA.
Correspondence Solicited.

Mr. A. W. Spooner, Port Hope, Ont., informs us that he has secured a desirable space in Machinery Hall at the Toronto Exhibition in which he will make a fine display of his specialties, including that old stand-by, "copperine," phenyle, the great disinfectant, and the Gandrie can and bottle labeler, a notice of which has already been printed in these pages. Regarding this latter invention, it was recently announced that its capacity was to place from 8,000 to 12,000 labels per day, but Mr. Spooner informs us that since then its construction has been so much improved that its capacity is now four or five times greater. He is now making an automatic machine to be run by either hand or steam power, the results from which can only be limited by the speed at which it is driven.

Mr. L. A. Morrison, mechanical engineer, and formerly associated with Mr. A. R. Williams of this city in the machinery business, has just completed a set of machines for the manufacture of hoop, heading, staves and veneers that is claimed to be capable of almost revolutionizing the production of these products. A company has been formed to control not only the machinery itself but also the use of it for Canada. A model mill is now in course of erection on the Beaver River, in Grey County, Ont., which, when completed, will be one of the best equipped mills for the production of hoops and veneering in the country. Mr. Morrison has had an extensive experience in machinery and mill building, and will no doubt fulfil the expectation of the practical men associated with him in the company.

The Forest Silver Bronze Packing Company, New York, have issued a circular in which is printed extracts of some of the testimonials they have recently received from parties who have adopted their packing. Some of these are as follows. Providence (R.I.) Machine Co. "It is giving us better satisfaction than anything we have ever tried before." Chesbrough Bros., Emerson, Mich. "Packing has proved all right." Pepperell Mfg. Co., Biddeford, Maine "The packing is doing splendid work." J. J. Painter's Sons, Pittsburgh, Penn. "We have used your Silver Bronze packing on our launch engine for some months, and it has given perfect satisfaction." C. W. Houston, engine driver on Central R.R. of New Jersey - "Regarding the Silver Bronze packing furnished for locomotive No. 145 which was put in in the latter part of 1889 I run the locomotive for over a year and never had any trouble with the packing whatever. It never required any attention and it never leaked. The engine has run with this packing at least 100,000 miles."

Mr. Wm. H. Frost, proprietor of the Smith's Falls Malleable Iron Works, Smith's Falls, Ont., has sent us the following circular: Having found our capacity during the past season quite inadequate to fill our orders promptly, and in order to meet this demand and give satisfaction to our many customers for the coming season we have now in course of erection a new moulding shop 250x58 feet, which will give us a capacity of 2,000 tons. We are adding another furnace of six tons output per day, also remodelling our present works, bringing the whole up to a first class standard. We have also engaged Mr. M. D. Greenwood, late superintendent of the Hoosick Falls Malleable Iron Company, Hoosick Falls, N.Y., one of the largest works of the kind in the United States, to take charge of the manufacture of our castings. Instead of carrying forty tons carriage hardware as formerly, we are now bringing the stock up to 100 tons, so that orders can be filled at once from stock. Our endeavor will be to furnish first-class castings at the market price and meet the demands of our customers promptly.

The Charlottetown, P.E.I., *Examiner* thus refers to the tunnel borings being carried on in the Strait of Northumberland by the Electric Mining Company of Ottawa. "A slim white column of

FOR REPAIRING MACHINERY



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

EVERY MANUFACTURER NEEDS ONE.

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WIRE.

Coppered Steel Spring,
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We Guarantee the Quality of all our Wires.

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smoke and steam rises day by day from the blue waters of mid-strait marking the spot where the drill descends to explore the sub-marine strata of rock or clay where the future tunnel is to make a highway of commerce between P. E. Island and the continental lands. The larger part of these beds consists of a tenacious clay which is far more difficult to drill than the hardest rock, clogging every tool put into it. The drilling is now effected from a stage erected upon a single upright shaft of iron tubing, the design of Mr. Palmer, chief engineer. A pontoon anchored alongside carries the steam boiler and the steamer *Almeda* attends on the work, assisting in shifting to each new station, taking care of everything in case of a storm, and bringing coal, water and supplies. Yesterday Mr. G. B. Gordon, C.E., of Harvard University, visited the works, taking a photograph of the drill at work, and expressed himself highly pleased with the arrangements and mode of operation. He also spent considerable time studying the geological features of the tunnel bed and its natural adaptability for the great work designed.

A CORRESPONDENT at Amherst, N.S., has this to say about the Chignecto Marine Railway:—The work of pumping out the water which had accumulated in the Tidnish dock of the Chignecto marine railway is being steadily carried on, several additional pumps having been recently put to work. The engine house at the Fort Lawrence end of the railway has now its complete equipment of engines, boilers, etc. The building itself is a handsome structure, erected by Rhodes, Curry & Co., of brick, with a solid concrete floor, four feet thick. Easton & Anderson, of London, Eng., constructed and placed in position all the machinery. The engine house contains three multi-tubular boilers, 7x24 feet, fitted with double fire box with return floor; two pairs of compound condensing engines each of 500 h.p.; an air pump for condensing, worked by a separate engine, to which is also attached an air compressor for the purpose of drawing the water out of the hydraulic cylinders. The boiler, engines and connections are all completed, and have been tested by steam and have found to give every satisfaction in

BELTING

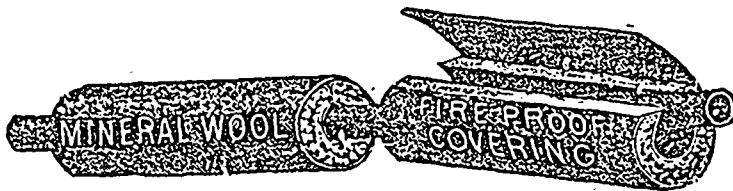
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LAMKIN'S PATENT.

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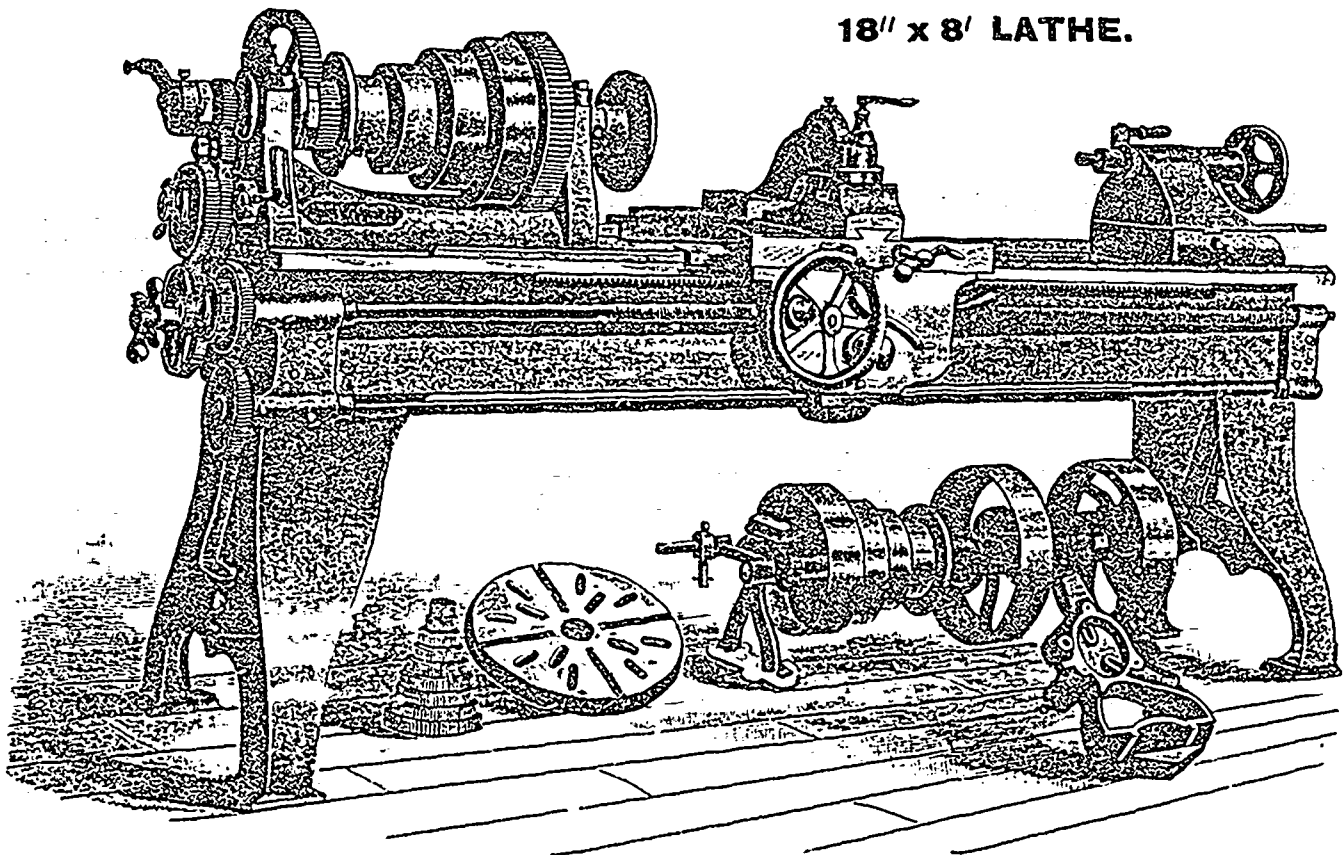


If you have any Pipes or Boilers uncovered you are losing on same at the rate of 30 cents every year on each square foot of surface exposed. By having them covered with our Mineral Wool Sectional Covering you will save 85 per cent of this loss. The saving in fuel will in one year more than pay the cost 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.

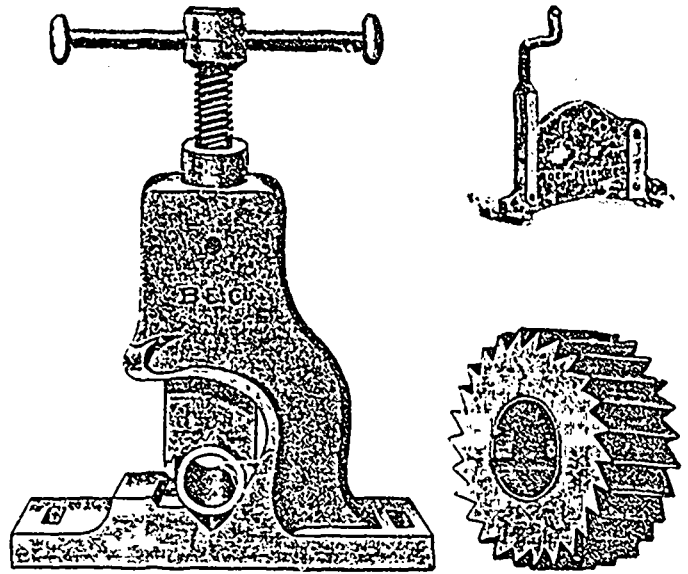
STEVENS, HAMILTON & CO., GALT, ONT.

18" x 8' LATHE.



their working. The accumulator and hydraulic pumps have all been carried outside the engine house ready for connection with the hydraulic cylinders in the dock immediately on the completion of the dock. The girders, gird iron, and bravissers for dock use are all on the ground ready for being placed in position as soon as the stone work in the lifting dock is completed; also the hydraulic engines, to be used for the purpose of hauling the cradle on and off the lifts before it is taken hold of by the locomotive for transmission along with its burden over the line

ONE of the most important industries in the Maritime Provinces is one which perhaps the public in Nova Scotia hear least about. It is the business carried on by the Miller's Tanning Extract Company. There are two factories in New Brunswick, one in the United States, one in the north of Turkey and one in Austria. Nearly thirty years ago, Mr. Miller, of New Brunswick, discovered the extract, or rather found the present method of obtaining it. He went into the manufacture and made a good thing of it. Subsequently he sold out to a syndicate, and for the past ten years the business has been controlled from a head office in London. The New Brunswick factories are at Millerton and Mortmore, and afford employment to a large number. The extract made at those points is hemlock. About 20,000 cords of bark, valued at \$100,000, are annually consumed at the two New Brunswick factories. The factory at Jennette, Pa., produces oak wood extract, as also does the factory in Turkey. In the Austrian branch larch extract is made. James Miller, of New Brunswick, went to Austria to superintend the erection of the factory there. The annual value of the product of the various factories aggregates some \$2,000,000. The process of manufacture of the extract is similar to that of sugar refining. The bark is ground fine, then leached and the tannic acid dissolved and taken from the bark, the impurities being separated from it. It is boiled in vacuum pans, surplus water being removed. The last stage is barrelling for shipment. The process takes about forty hours from the time the bark is put into the factory. J. C. Miller is the manager of the American branches, and J. W. Miller, of Millerton, N.B., is in charge of the bark-getting department in New Brunswick.



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The Patent Process Seamless Tube Hose

We make all our Hose by this process. Ask the merchant you deal with for it and take no other.
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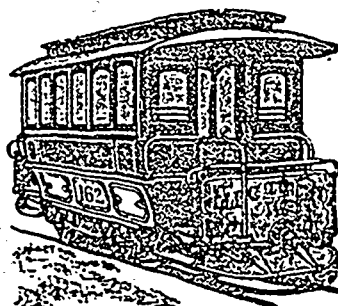
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OUR
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MANUFACTURERS OF
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OF
EVERY DESCRIPTION

One of our English contemporaries has recently given a very complete account of the Bernardos arc welding process, as operated at the tube works of Lloyd & Lloyd, in Birmingham. Arc welding and the Thomson process seem to occupy quite distinct fields. The arc method has its peculiar usefulness in connection with large work in which the electric arc serves simply as a means of communicating very intense heat at the particular point necessary. As will be seen from the articles in question, it is applied with great effect to the manufacture of tubes, and gas, steam and water fittings generally. Until its introduction the makers were dependent on a powerful blowpipe for doing this rather delicate class of work, but the electric arc from its great power and convenience has proved to be immensely more effective than any form of blowpipe yet devised; in fact, Lloyd & Lloyd report that the cost of the weld by this process is only one-fourth that which was usual when the blowpipe was employed. It will be noted that the Bernardos process is

also widely different from the Collin system of arc welding, which has already been used in this country. Of the two it must be conceded that Mr. Collin's method is the most pleasing, since by the action of a magnet it converts a powerful arc into a blowpipe which can be handled so as to apply just the right amount of heat at just the point necessary. By the Bernardos process the arc is drawn between the metal itself and the carbon electrode. Inasmuch as the work forms the positive pole, the heat generated is very intense, but the process gives the impression of being less handy than the one just mentioned. It is certainly successful, and enables a class of work to be very readily done which would be impossible by any other process. For example, fitting 12 inches in diameter can be made out of 5-16 metal cheaply and rapidly, a feat which would be exceedingly difficult, if not impossible, to perform by other means. Apparently, arc welding has come to stay, at least in its application to certain classes of work. *Electrical World.*

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The Canadian Manufacturers' Association

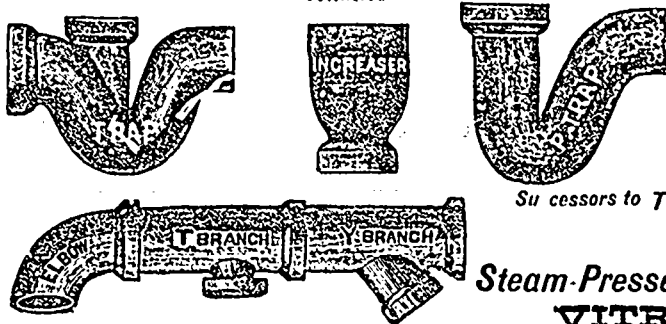
THE OBJECTS OF THIS ASSOCIATION ARE :

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.

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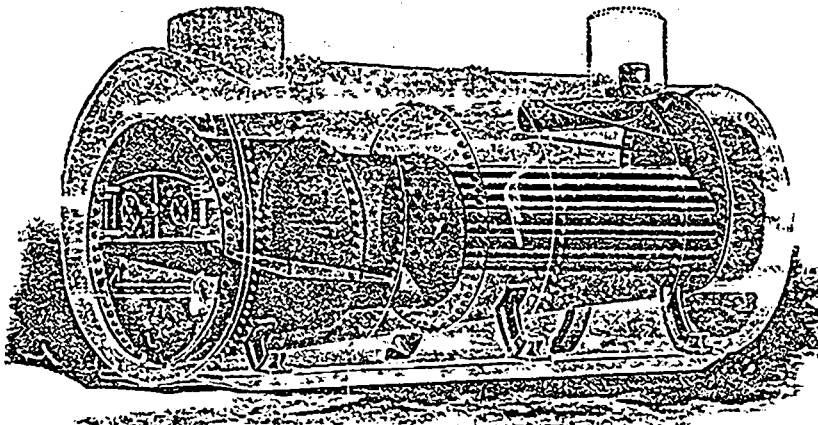
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Every policy issued by the Manufacturers' Life has this most liberal provision: "That after being in force **TWO YEARS**, provided the age of the insured has been admitted, the only condition which shall be binding upon the holder is that he shall pay his premiums when due. In all other respects the liability of the Company under the policy SHALL NOT BE DISPUTED."

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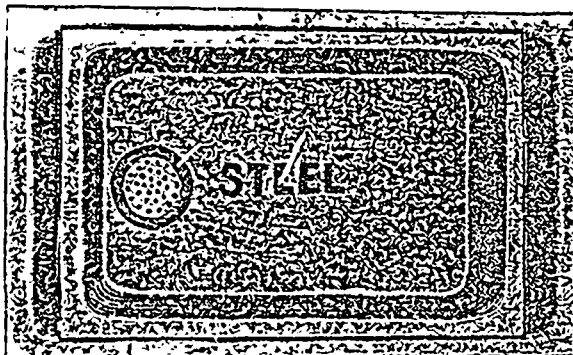
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These Kitchen Sinks are finished in **PAINTED** and **GALVANIZED**.

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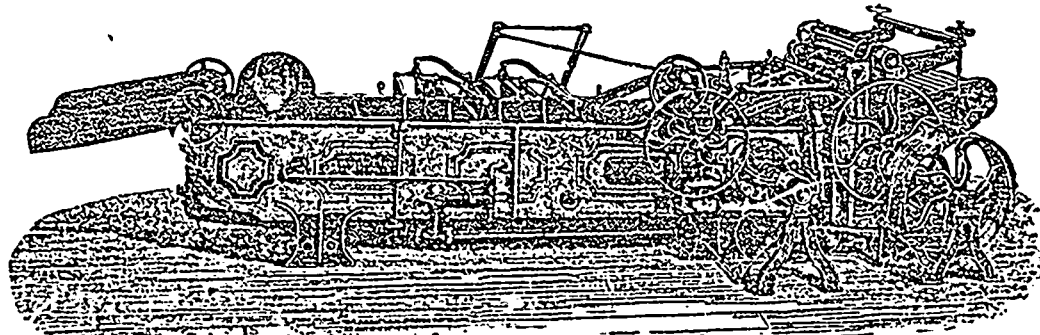
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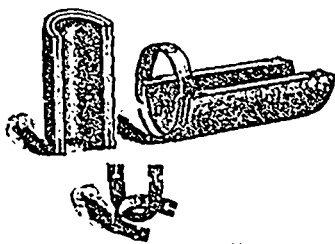
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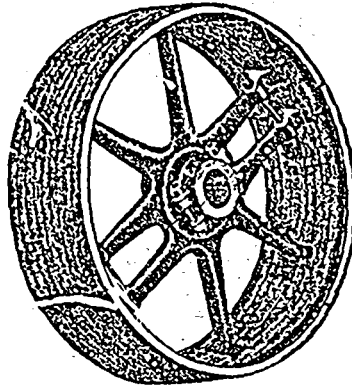


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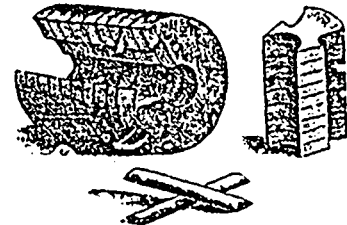
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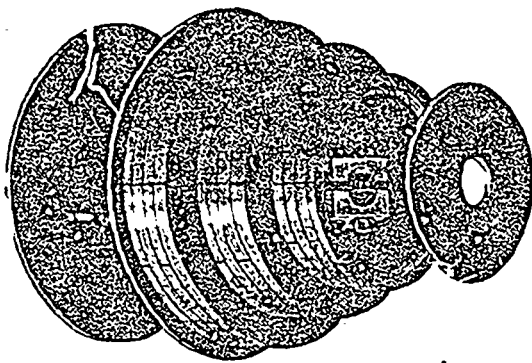
Our Collar Pulley.



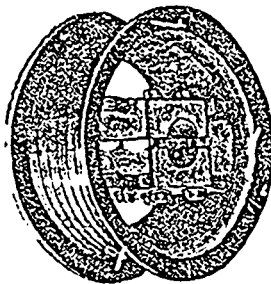
Iron Centre Split Pulley.



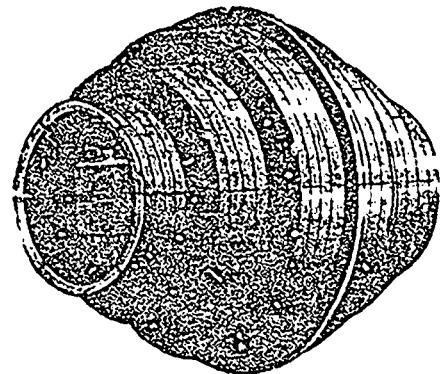
Our Wedge Pulley.



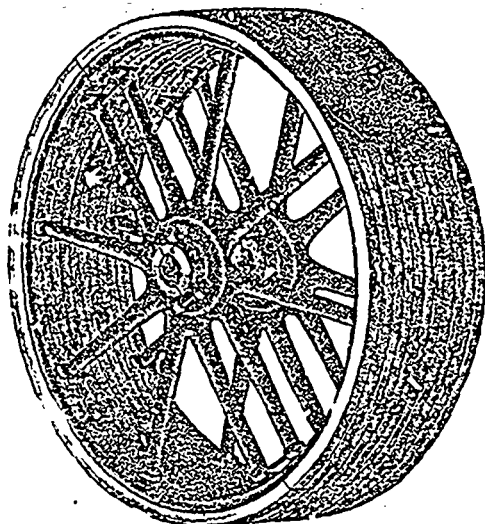
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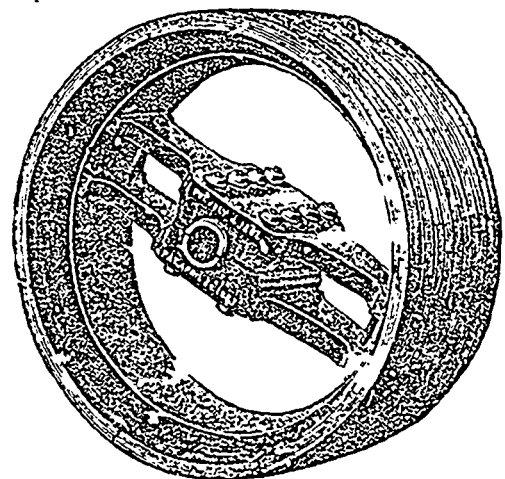
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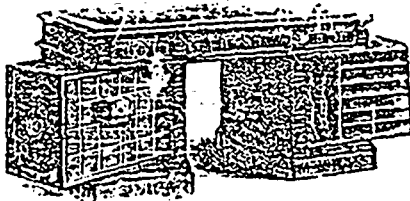
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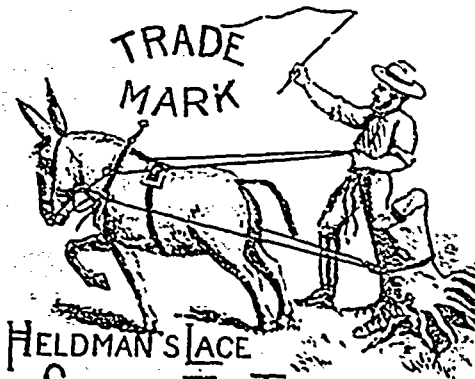
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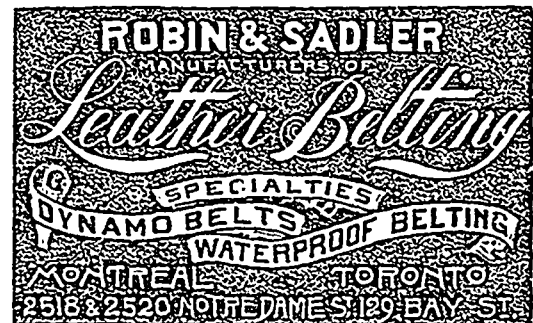
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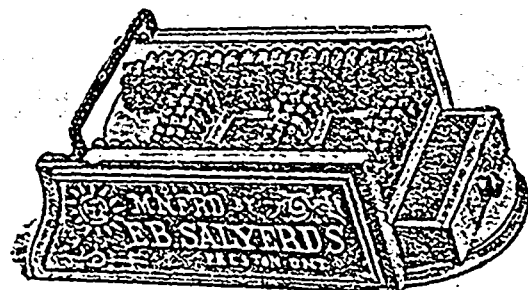
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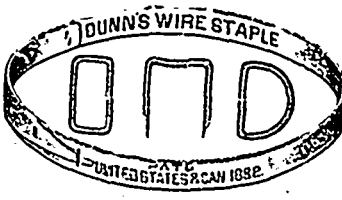
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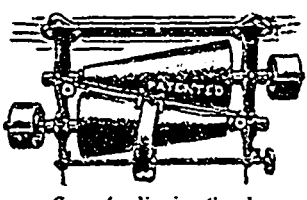
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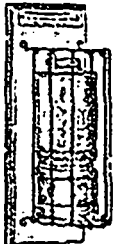
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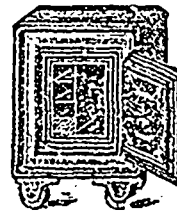
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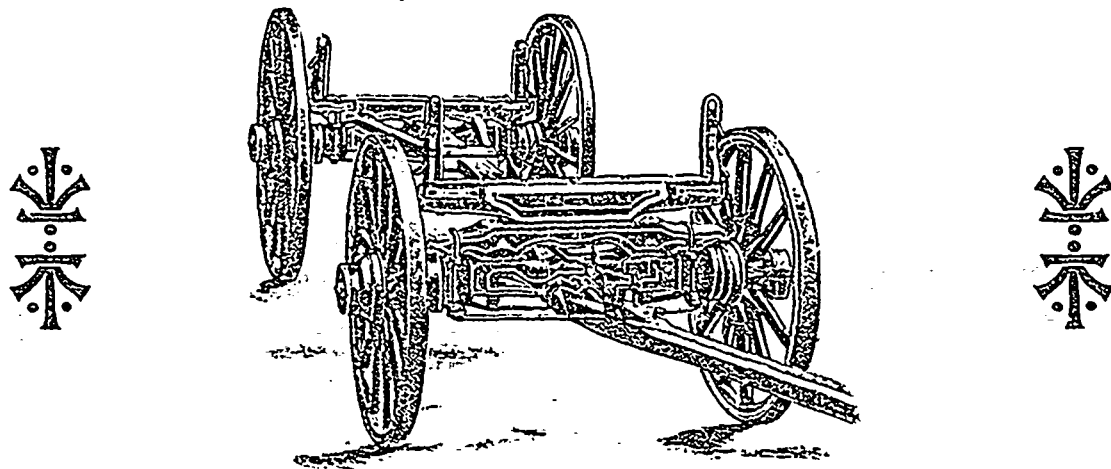
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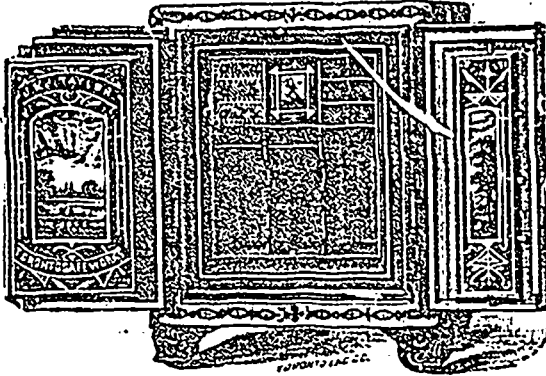
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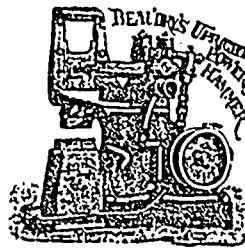


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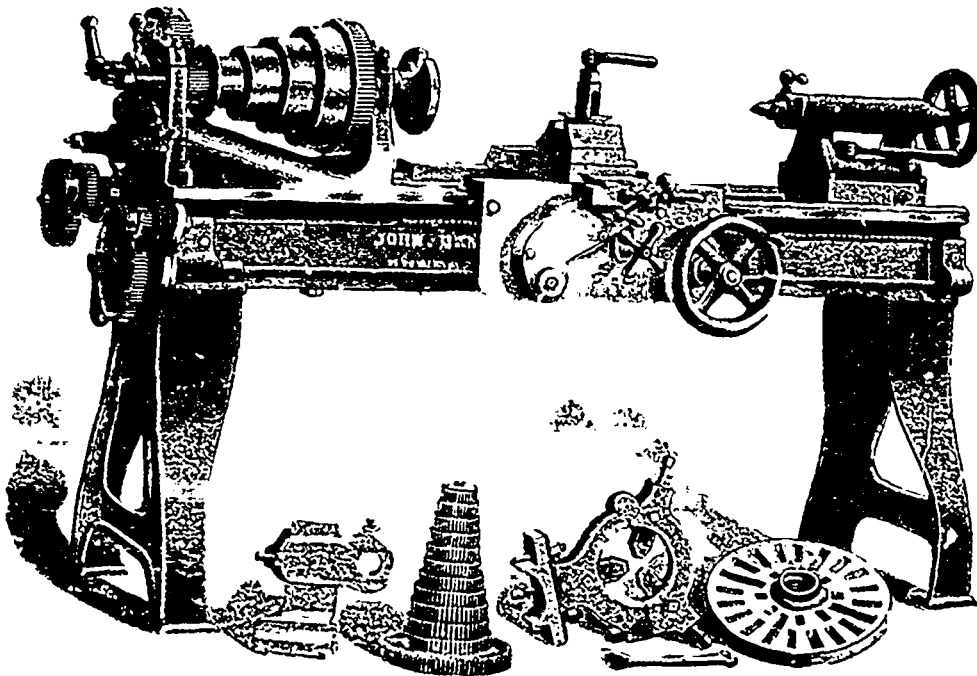
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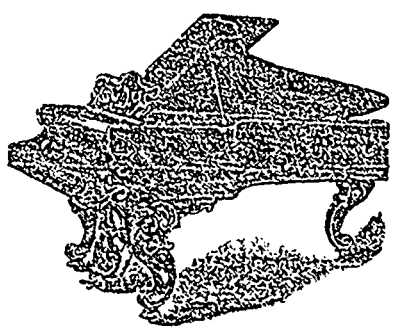
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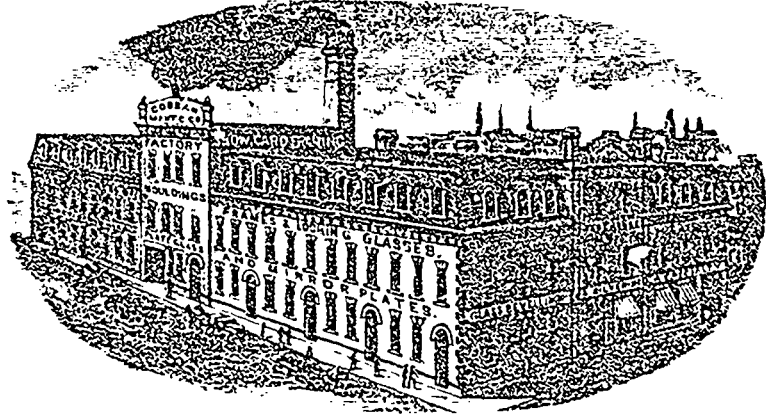


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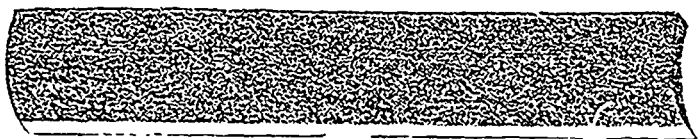


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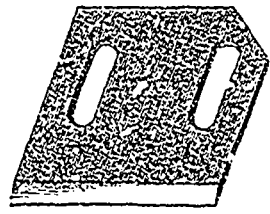
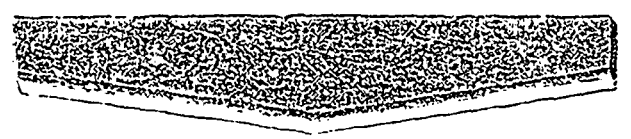
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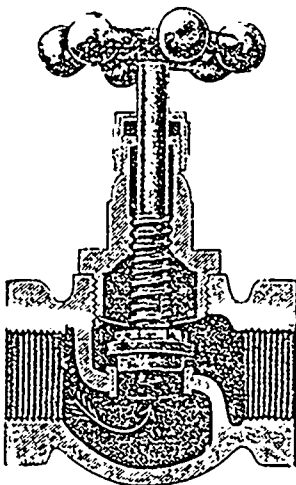
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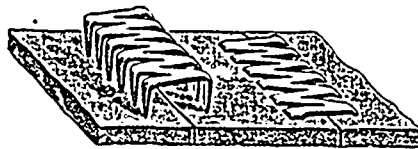
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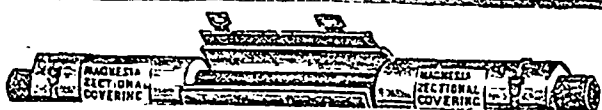
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