

THE CANADIAN MANUFACTURER

AND INDUSTRIAL WORLD

DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

Vol. 23. TORONTO, OCTOBER 21, 1892. No. 8.

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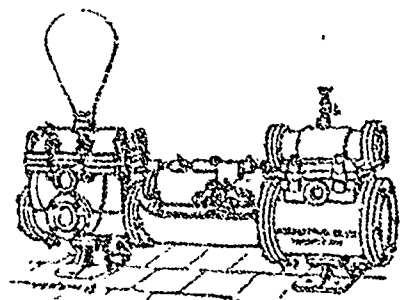
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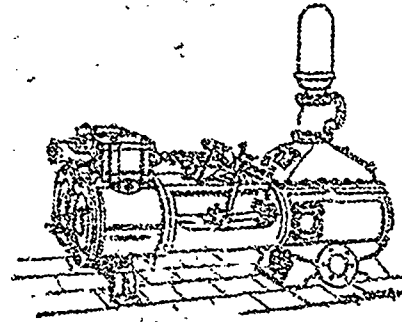
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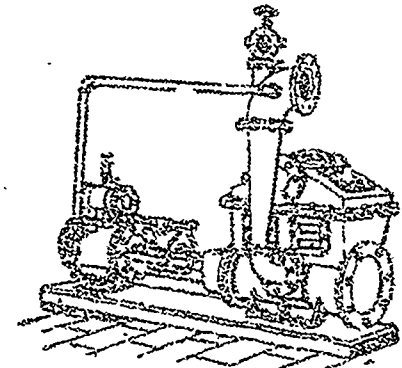
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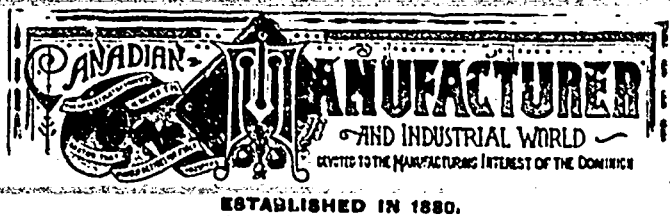
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CANADA AT THE WORLD'S FAIR.

A LETTER recently published in the *Globe*, making allusion to the insufficient accommodation offered to Canada at the forthcoming Chicago World's Fair, has called forth a statement from Prof. Saunders, also published in the *Globe*, to the effect that the remarks made by him at the meeting of the Canadian Manufacturers' Association, held at the Toronto Fair grounds on September 14th. had been misunderstood. Prof. Saunders now says that those classes of manufactures which are specially provided for in what is known as the Manufacturers' Building must be brought within the limit of 15,000 superficial feet, but that many of the more bulky exhibits of manufactured goods will be provided for in other buildings, that in addition to the 15,000 feet referred to, Canada is allotted 5,000 in the section devoted to liberal arts, where musical instruments, etc., will be shown, that the Massey exhibit is provided for in the Agricultural Implement Building, where nearly 10,000 feet has been assigned to this country;

that in that same building another 10,000 feet has been given to Canada for displays of food products, that in the Transportation Building Canada has 15,000 feet for the display of everything relating to transportation, and that in the Machinery Building, erected for machinery in motion, Canada has been awarded 8,000 feet, the system of classification adopted by the Exposition authorities being such that the entire space assigned to Canada amounts to fully 100,000 square feet.

Special efforts were made by the Manufacturers' Association to afford Prof. Saunders every facility of explaining his mission to the manufacturers at the meeting held at the Fair Grounds. He was not restricted as to time in unfolding his business, and if he failed to make himself fully understood it was quite unfortunate for all concerned. But the report of what Prof. Saunders stated at that meeting was substantially correct, and agrees quite fully with the reports of that meeting made at the time in the *Globe* and *Empire*, whose reporters were present. According to the *Globe*, Prof. Saunders said that a special department had been set apart for the manufacturers, and in this 15,000 feet had been granted to Canadian manufacturers; that already there were applications for so much space that the whole amount could be easily filled with exhibits, but that it was desirable that all the manufactures should have exhibits—that all important manufactures should be represented—and to admit of this those who had already applied were willing to have their spaces curtailed. The *Empire's* report stated: "Prof. Saunders explained that the whole of the 15,000 feet which had been allotted to the manufacturers of Canada, had already been applied for. Several of the exhibitors, however, would be content with less space should more applications be received." The fact is, Prof. Saunders made no allusion whatever to any other space, to be used for any other displays of manufactures, than that of 15,000 feet, the fair inference being that the Massey exhibit would occupy about 4,000 feet of this space and the cotton mills exhibit the balance if no other applicants appeared.

We are informed that the original intention of the Chicago managers was to allot to Canada only 5,000 feet for the display of agricultural implements. It was very evident that the Massey-Harris Co., who desired to exhibit there, would require the greater part of that space in order to have sufficient room to show only one sample of their different machines. Efforts were made to obtain increased accommodation, and to this end the assistance of Sir Henry T. Wood, the British Commissioner, was invoked, with the result that this space, was increased to 8,000 feet, (Prof. Saunders says 10,000) the space required by the Massey Company being 3,700 feet.

If, then, adequate space has been provided at Chicago for a liberal and comprehensive display of Canadian manufactures, it is to be regretted that this fact was not made known at the Fair Grounds meeting. It should have been generally known long before that time, and it is difficult to understand why it was not. The impression was made by what Prof. Saunders said, that Canada's accommodation for manufactures at Chicago would include but 15,000 feet of space; and the gentleman's letter in the *Globe*, of 5th inst., was the first intimation to many of our manufacturers that they labored under a misapprehension.

PROFIT SHARING.

THE introduction of the system of profit sharing in Canada was made at the beginning of the current year by Messrs. T. S. Simms & Co., manufacturers of brushes, etc., St. John, N.B. On the last pay-day of the expiring year—1891—Mr. T. S. Simms, the head of the concern, gave a dinner to which all his employes were invited, about eighty in number, including quite a number of women and girls, at which, after some appropriate introductory remarks, Mr. Simms called attention to the fact that while most of his employes were careful and faithful in the discharge of their duties, it could not but be observed that there was more or less unnecessary waste of both time and materials, and that even greater economy could and should be exercised in carrying on the business. To meet this he proposed to establish the system of profit sharing. He said: "My plan is to share with you the profits of the business, and then on every dollar you save or make, a share will go into your own pockets. He who saves a foot of lumber where it now goes into the fire, will save something for himself. He who saves an ounce of bristles will add to the profits of all. The girl who is saving of stock and wire does the same. The broom-maker who saves two pounds of stock a day will save a month's wages in a year. And so I might go on enumerating the saving that may be made in stock, tools, machinery, oils, nails, tacks, twine, paints, gas and a hundred other articles. Also, by improving your workmanship a larger sale at better prices will be secured." The management of the business would not be changed, and the system of wages would remain the same. As the employes would have no voice in the management, so they would not be expected to share any losses that might occur. The invested capital of the concern would be paid interest at the rate of six per cent. per annum, and ordinary salaries would be paid for management. Percentages would be allowed for depreciation of plant, for a sinking fund and for an invalid fund; and after providing for all these charges, the profits were to be shared equally between capital and wages, this to apply only to employes who had been in the employ of the firm at least ten months when the profits were divided. The employes were to have the privilege of appointing two of their number who could inspect the books and see that the terms were faithfully carried out; or a public auditor would be employed. The agreement was to be in force for a year, at the end of which time the firm could continue or discontinue it at their pleasure. The dividends, when declared, would be paid in cash, but if they were deposited with the firm, certificates of deposit would be issued and interest allowed thereon at the rate of six per cent. per annum.

Interest in the result of this business innovation induced us to enquire concerning it; and we are in receipt of a letter from Messrs. Simms & Co., in which they inform us that their first year of this experiment has not yet expired, therefore they are unable to show just what the financial result of it will be, but they are able to say that the arrangement has resulted in a more cordial relationship between employer and employe, and that it can be seen that many of the best hands are taking more interest in the business. As might have been expected it had made no difference with some; but if the result of the

year's work would allow of a dividend being paid, this would be a realization to the employes which would so encourage them that better results might be expected in the future. The letter concludes by saying: "We have faith in the plan and expect to continue it."

In a previous article in these pages on profit sharing, allusion was made to the N. O. Nelson Manufacturing Company, St. Louis, who were pioneers in this departure in the United States. In reply to a letter from us asking information regarding the working of the system in that country, Mr. Nelson informs us that profit sharing has had considerable growth within the last half dozen years. Last winter "The Association for the Promotion of Profit Sharing" was formed in New York for its promotion and for supplying information concerning it. The president of this Association is Hon. Carroll D. Wright, United States Labor Commissioner, the vice-presidents General Francis A. Walker and Mr. N. O. Nelson, and the Secretary Mr. N. P. Gilman, West Newton, Mass. It is estimated that there are now about one hundred manufacturing concerns of some consequence in the United States operating under some form of profit sharing, this exclusive of all such as pay a percentage of profits to heads of departments or other leading employes. In the profit-sharing system, as practised in Mr. Nelson's business, we are informed that there is no deviation from the ordinary methods of controlling and conducting the business. There is simply a division of the profits at the end of the year on a simple and well-understood plan. Experience has shown that free labor will do more faithful and efficient work than slave or convict labor; and for the same reason labor, which is interested in the profits, is working for itself and not simply for a taskmaster, and will, therefore, do more and better work. Mr. Nelson thinks that a provident fund for the benefit of the disabled should be a feature of every profit-sharing enterprise, and that the joint or association principle should be cultivated.

Regarding the association above alluded to, its executive committee consists of a railroad director, four manufacturers, who, like Mr. Nelson, practise the system in their business, and a Professor of Political Economy in an American College. The Association thus bring together men of science and men of business who desire the extension of this and kindred systems of uniting the interests of employers and employes. It is their intention, we are informed, to establish a bureau of information for the benefit of manufacturers and others interested in profit sharing, and by various publications and addresses before commercial and other clubs to promote the discussion and extension of this industrial reform.

It may be thought by some that profit sharing partakes strongly of socialism. This may be so. If it is so, it is a feature of socialism which manufacturers would do well to study. Those who have studied it the closest are the ones who are not afraid of that sort of socialism; and the testimony of a large number of manufacturers, including some in Canada, think so favorably of it as to adopt it in their business. The system when judiciously administered, seems to be uniformly successful; and it cannot but prove to be a tower of strength in supporting any fiscal system of the Government in that, without doubt, the interests of employers and employes are identical. With the general adoption of the system by manufacturer- it

would be folly for the enemies of the N.P. to denounce it as provocative of combines, which are intended, perhaps, to depress wages, when the employes know full well that they are to receive an equitable share of such profits as may be realized.

THE WORKING MAN AND THE TARIFF.

At the Trades and Labor Congress held in Toronto last month, a resolution was introduced favoring the removal of all duties and imposts levied upon the products of industry, either imported or manufactured in the country, except upon such as are levied with a view to restricting the use and consumption of any article or product held to be injurious; and the substitution therefor as a means of raising the revenue required for the government of the country of a single tax on land and natural opportunities. The congress decided not to pass upon the resolution at that time, but to forward it to the various labor organizations for consideration.

The incident has been made use of by the enemies of protection to argue that the labor element of the community are up in arms against the N.P., and that the downfall of it is but a matter of short time, growing out of what they are pleased to call a "formidable revolt" in that direction. The *Globe* says "It would be difficult to overestimate the significance of so formidable an attack upon the so-called National Policy in what ought to have been its very stronghold;" and that to ask the working men "in their own assemblies to take their opinions ready-made from the Red Parlor is the very sublimity of impudence. That the Trades Congress have not been thus bamboozled into playing into the hands of monopoly is evidenced by the action which they took, and which will promote a free discussion of the tariff question in every trades union in the land." The *Montreal Herald*, in its enthusiasm, says: "A few years ago a man who should in a labor lodge proclaim himself a free trader, would have met with nothing but derision. Now the subject is recognized as one in which the working man is intensely interested, and comes before the lodges endorsed by the trusted leaders. With the glamor of the old pictures still deceiving their eyesight, workmen have hitherto refused even to argue the question of free trade."

The trouble with these journals is, that they either do not correctly comprehend the nature of the sentiment which prevailed at the Labor Congress, or they intentionally misrepresent it. There is no subject upon which any discussion could possibly be had which has not been discussed time and time again in the labor lodges, for it is the style of the debaters there to discuss and formulate opinions in the freest and most off-hand manner upon questions which Pan-Presbyterian Synods, National Parliaments, Church Consistories and other debating societies would consider a long time before declaring upon; and from what has been made public time and again of the debates held in labor meetings, no hesitancy or backwardness has ever been shown in discussing the merits and demerits of both protection and free trade. The fact, however, that working men as a class are adherents of protection, shows that their good common sense has usually prevailed, and kept them in the path where their interest lies. It is not true, as these journals would make believe, that in the Labor Congress there

was an overwhelming majority in favor of free trade. If there had been, the resolution alluded to would have been adopted. Like in other classes of thinking men, there are those among working men who entertain the idea that society as at present constituted is not actuated by such principles as tend to confer the greatest good upon the greatest number, and that reforms in certain directions are greatly needed. Such views are not confined, however, to laboring men, nor the discussion of them to labor lodges, for we know that these reforms have been receiving the closest thought of many of the world's best and most practical philosophers; and the discussion had in the Labor Congress was not along the line of free trade as much as it was in the direction of the single tax upon land values, now agitating certain elements of the civilized world. This idea commends itself very strongly to working men; and we know that their agitation of it has already resulted in much good, not only to themselves but to the whole community, except the land sharks.

The object of the free trade journals is to array the working man against his employer. The working man knows that his interests and those of his employer are identified, and it is a common enemy that attempts to array one against the other. No matter how prosperous a working man may be, it is his laudable and proper ambition to become more prosperous, and to continually strive to elevate his condition. No employer blames him for this; for the working man who does not have such ambition, cannot be of as much value to his employer as the one who has. If the N.P. is of value to the employer, it is of equal value to the employe; and he who seeks to create a chasm between the two is a friend to neither. It is possible that there may be working men who, because of lack of laudable ambition become discontented, and may be induced to advocate free trade; but the reason why they are not as successful as they would like to be, lies more in their lack of intellectual capacity than in any thing else. Sensible workmen understand that however much they may desire to witness the success of their single tax idea, it will require long years of discussion, and probably a revolution to bring it about; while the question of wages is one of to-day, and therefore of the utmost importance, while the other cannot be more than an iridescent dream. It was this dream of a single tax that the Labor Congress relegated to the various sub-organizations for further discussion, not the question of free trade.

There is this to be said in this question of wages in protected industries. If a working man votes for free trade because his wages are small, he votes to make them smaller. Protection is for his benefit quite as much as it is for the benefit of his employer. The employer could get along under free trade in Canada better than the working man could. Free trade would convert the artisan into the agriculturist, or else the wages of the artisan would be brought down to the level of wages paid in other free trade countries. Hundreds of thousands of persons are leaving free trade Britain every year, hoping to better their conditions in more favored climes. They do not do this for amusement, but because, under free trade conditions, they are forced to expatriation.

The laboring men of Canada understand this situation thoroughly, and that is why protection is in such high favor with them.

KINDERGARTEN STATESMANSHIP.

If the *Toronto Empire* were published in New York under the immediate supervision of Mr. Cleveland's literary bureau, or as an annex and supplement to the *New York World*, it could not be more zealous in behalf of the Democratic party, nor more solicitous for the success at the polls in November of the candidate of that party in the contest for the presidency. Just why this should be so is something not apparent to the public, but that it is so is evident, as may be discovered by reading its editorials from day to day. The course of the *Empire* is remarkably strange and inconsistent, in that it proclaims itself as being a firm believer in the N.P., and a laborer for its perpetuity—a believer in protection to home manufacturing industries, while it constantly contradicts and belies this assertion, in giving all the aid and comfort it can to the enemies of that fiscal theory. It says it is not in favor of free trade, or its nearest approach—a tariff for revenue only, in the United States, but it constantly advocates the Democratic cause, knowing that that party has no greater reason for its existence than the breaking down of the protective policy which has for so long a time prevailed there; and it says that it is in favor of protection, while it constantly belabors the Republican party, which is the party of protection, and exerts itself to the utmost to defeat it.

There is this to be said regarding the political parties in the United States, and the effect that the success or defeat of either of them may have upon Canadian politics. Our own N.P. was modelled very closely along the lines of the tariff inaugurated by the Republican party. Although a strong sentiment had always existed in that country in favor of tariff protection, and although that sentiment has found expression in some measure of protection at different periods, it never assumed so decided a phase, and became of such overwhelming importance until the adoption of the Morrill tariff in 1865. The effect of that tariff was to raise the country out of the deplorable condition which then overshadowed it as a result of the war of the Rebellion, and of Democratic misrule, and to place it on the road to prosperity and greatness. Not even the bitterest Bourbon Democrat will claim that the Morrill tariff, which proclaimed protection for American manufacturing industries, was not the lever that lifted that country out of the mire into which it had been precipitated by free trade and human slavery. Up to that time Canada had suffered from a similar policy. She had never ventured upon the trial of protection; and she probably never would have done so if it had not been that the result of that policy in the United States set her an example which it would have been folly and madness not to have recognized and followed.

If the working of protection in the United States had not proved such an unbounded success; if the result of it had not inspired the masses to cling to it with the utmost pertinacity; if it had not lifted that people to the highest pinnacle of national prosperity, and held them there, it might lie with the enemies of protection in Canada to point to it as a failure, and to urge the subversion of the system here. But this cannot consistently be done; for we not only behold how it has benefitted our neighbors, but also what great benefit it has been to Canada. Why, then, is it that the *Empire* is such a foe to protec-

tion in the United States, while it professes to be such a friend to protection in Canada? It is plain and palpable that even as protection in the United States beget protection in Canada, even so would the defeat of it in the United States work the ultimate defeat of it here. Is the *Empire's* animosity aroused because some portions of the McKinley tariff bear heavily upon Canada? No doubt the teachings of Mr. Winman, Sir Richard Cartwright, the *Globe* and of Grits generally, to the effect that Canada was hopeless and helpless, induced the American Congress to pass this legislation; but is it the policy of the *Empire* to decry protection on that account? It is childish to do so—nay, it is traitorous to the principles it professes to uphold. It advises Canadians to rid themselves of the notion that a Democratic victory would mean free trade; that moderate protection is the platform of the American Democracy; that the Democrats have a more moderate trade policy than the Republicans; that the Democratic party is declared not to be a free trade organization; that Mr. Cleveland's recent letter satisfies all doubt as to Democratic policy, clearing the air of free trade assertions, and much more of that sort.

The fact is, notwithstanding all the disguises sought to be thrown around the question, the issue now about being decided by the American people is whether protection shall be continued, or shall a system be inaugurated which is intended sooner or later to lead to the adoption of free trade. The Democratic platform adopted at Chicago, upon which Mr. Cleveland now stands as the nominee of that party, denounced the protective system as fraud and robbery; and it is under that banner the Democrats are seeking to destroy it. The *Louisville, Ky., Courier-Journal*, of Sept. 19th, says:—"We denounce the robber tariff. We denounce the fraud of protection. We declare that the Government has no right, constitutional or otherwise, to raise a dollar by taxation, except for its own uses, economically administered, and we propose when we get the power, to put our revenue system in a state of transition from the policy of protection, which now prevails, to a policy of free trade, which shall prevail." This is very plain language, but it voices the views of the Democrats in Congress and out. And this is the party to which the *Empire* is lending its aid and comfort. It may be statesmanship to do so, but if it is, it is such as might be found prevailing with little children in the Kindergarten schools, but not among intelligent lads ten years of age.

INDUSTRIAL PARTNERSHIP AND THE NATIONAL POLICY.

It has always been the contention of this journal that the interests of the manufacturers and of those employed by them were identical. Labor is the creator of wealth, but the exertions of labor, to be successfully applied, must in these days be put forth in co-partnership with capital. Whatever, then, that benefits or injures the one must inevitably similarly affect the other. If the National Policy benefits the home manufacturer by shielding him from the unfair competition of the foreign manufacturer, it also enables him to pay higher wages to his employes than what his foreign competitor pays to those who work for him. It is contended by the enemies of the National Policy that this is not always the case, or rather that the home

manufacturer does not always pay to his employes as high wages as he ought to pay, considering the extent of the protection he enjoys under the tariff; that protection encourages trade combinations and monopolies in which wages are depressed and the employe is made a helpless sufferer. If trade combinations existed only in protection countries, and was not practised in all parts of the world, this argument might have some force; but such combinations in Canada are the exception and not the rule. There are but few industries in this country where monopoly or unjust combinations is possible; but because there are some, the enemies of the National Policy declare that the possibility is open to all industries, and that, therefore, it is not to the best interest of the country that the National Policy should endure. They endeavor to show that because of the possibility of these combinations and of the frequent existence of them, the interests of the manufacturer and of the employe are not identical.

While we entirely repudiate this contention, and declare that the argument is unsound, unfair and misleading, we cannot close our eyes to the fact that it carries some weight with unthinking men; and whether they are unthinking or not, if they are influenced by this argument to the extent of supporting it at the polls, the matter calls for the most serious consideration and action on the part of the manufacturers to prevent a catastrophe. Recent elections in Canada have demonstrated that the National Policy is in high favor with the working classes, but it is the part of wisdom for the manufacturers to do what they can to steady this phalanx and to prevent any diversion of its forces. How can it be done?

Industrial partnership is suggested. It should be borne in mind that there is a great difference between industrial partnership and commercial partnership. In any commercial partnership which might exist between employer and employe, the employe would be privileged to inspect the books of the concern at his pleasure and to have a voice in the management of the business. In an industrial partnership the employe is stimulated by an expectation of gaining something more than his regular wages; and he knows that faithfulness, sobriety and good work will ensure to him a share of whatever profits may accrue in the business through his exertion.

This sort of co-operation originated in France many years ago, where it has taken a firm hold, and where it is practised by probably a hundred large concerns with the most gratifying results. Since then it has been established in England, in Switzerland, in the United States and in Canada, and its operations is not confined to manufacturing establishments alone, but includes other occupations where there are large number of employes, and where the success of the business depends largely upon the conscientious performance of the duties assigned to them. Under this system no ambitious employe feels that he can afford to perform his duty in a merely perfunctory manner. He is spurred on at the prospect of obtaining something more for his labor than mere wages. The success of his employer is his success. He is punctual, careful and diligent, none the less in times of depression than when prosperity beams upon his concern. At no time is he responsible for losses, for he is not a contributor in any way to any thing by which losses may occur except it be through bad workmanship; and if he is a bad workman it is to the interest of

the whole concern, employer and all the rest of the employes, that he should retire. When money has been made by his concern, after all legitimate charges have been met, the balance is divided and the employe is assigned his share. If no money has been made—if losses have been incurred—the employer bear all the loss—the employe none of it. The workman performed his part of the contract honestly and faithfully.

It may be asked, "If the workman is to share the profits, why should he not also share the losses?" If the partnership were of a commercial character he should. But it is not of that character; for the employer does not surrender any part of the management of his business to his employes. The system commends itself with much force to manufacturers. They are the ones to initiate it, and they alone must work out the details of it, and put the machinery of it in operation. It must be done intelligently, and if it works satisfactorily its continuance is assured. No manufacturer would find any difficulty in inducing his employes to join him in this industrial partnership. It is worthy of close consideration, perhaps of a trial. A trial of it would certainly bring employer and employe into closer and more friendly relations than what now usually prevail. It would obviate labor troubles, and strikes would become a thing of the past.

A brief description of the industrial partnership arrangement which was adopted by the N. O. Nelson Manufacturing Company, of St. Louis, some seven or eight years ago, and which has been in operation ever since, will illustrate some of the advantages of it. Workmen are paid the same rate of wages as are paid for the same work in other establishments, and the capital of the company is paid six per cent. per annum as its wages. After this, one-tenth of the net earnings is set aside as a surplus fund to meet losses in bad years, and a similar sum goes to a provident fund for sick employes. An equal dividend is then made to capital and wages, payable in cash or convertible into stock. This stock, held by the employes, is convertible into cash at par wherever the employe severs his connection with the company. During the first four years of this arrangement 43 per cent. was paid in dividends on wages. These wage-earners who accepted stock in lieu of cash, received as dividends thereon 61 per cent. on the first year's amount, 47 per cent. on the second, 32 on the third, and 16 on the fourth, besides compound dividends on the first three.

TARIFF INCONGRUITIES.

UNDER the McKinley tariff, where American manufacturers import foreign raw materials for consumption in their factories, and export their product to foreign countries, a rebate of 99 per cent. on the duties paid is returned to them. This enables them to compete in foreign markets with manufacturers of other countries, and under this system the foreign trade of the United States is rapidly assuming large importance.

A similar law prevailed in Canada until a recent date. If the raw material is not produced in Canada, the rebate is granted, but if it is made here the rebate is not granted; and we think we can show that the present arrangement operates very unfairly and oppressively in certain instances. We have knowledge that but recently a prominent Canadian manufacturer of shovels visited Mexico in the interest of his business,

and discovered that he could do a large and profitable trade with that country if he could enjoy such facilities and favors as his American and other competitors. But he found that there could be no rebate of duty upon his raw material, because the article was manufactured in Canada. He has a large establishment, and gives employment to a large number of skilled workmen; and this number would be increased, and steady work guaranteed to them, if he were permitted to manufacture for the foreign market. Why not give him a chance? Under the N.P. his industry has grown to proportions which supplies the home market. But he cannot use domestic made materials for his export trade, and because no rebate is allowed in imported materials, the export trade is lost to him and the additional work is lost to the country. Why not allow the rebate? No interest is benefitted by withholding it. The home manufacturer of the raw material is not benefitted, because, if the finished goods cannot be exported, the raw material of which they would be made is not consumed, and the revenue of the country is not benefitted, because the manufacturer cannot afford to pay the duty when the goods are to be exported in competition with other countries. On the other hand, the manufacturer is hampered because he cannot engage in the foreign trade, and the workmen are handicapped, because they cannot obtain as much and as constant labor as they would if they were employed on export work. The Government decline to imitate the McKinley law in this direction.

We have knowledge of a manufacturer who has prepared a plant and desires to operate it on a large scale in the production of cutlery. The duty upon such articles as he would produce is 25 per cent. but the duty upon the raw material (not made in Canada) is 30 per cent. The duty upon the raw material is actually higher than the duty upon the finished product. The Government have been asked to correct this incongruity, but they decline to do so.

We have heretofore alluded to many such instances. In fact a long list of such incongruities have been brought to the attention of the Government time and again, but they fail to receive the consideration their importance merits. If the entire list were rectified and adjusted, it would be at no material sacrifice to the revenues, but it would be greatly to the interest of the manufacturers. In many of these cases the difference to the manufacturers is the difference between working at a loss and working at a profit; and in some cases it means working not at all. The incongruity is prohibitory. The Government may feel themselves impregnable behind a two-thirds majority in the House of Commons, but they should awaken to the fact that they are alienating the support of the manufacturers by this indifference to their interests.

EDITORIAL NOTES.

THE *Toronto Globe* says that steel hammers "are the raw material that is used up in the manufacture of steel" of which steel hammers are made. What the *Globe* don't know about steel is equal to what the *Empire* don't know about the N.P.

THE *Empire's* Ottawa correspondent says that the Dominion Parliament will re-assemble either on the 12th or 19th of

January. It will be of much interest to manufacturers to know whether their applications for some modifications of the tariff will receive any more consideration than they did last session.

A TELEGRAM from Berlin, Germany, states that in the past three months the exports of knitted goods from Chemnitz to the United States had increased \$540,000, over the corresponding period of last year. These exports were especially large in view of the fact that prices were twenty-five per cent. lower, owing to the effects of the McKinley tariff. And still there are those who say that the tariff is a tax which the consumer pays.

WHEN we wonder at the petty tyrannies to which people submitted in remote historical periods, it robs us of half the pleasure of egotism to reflect that future generations will wonder why we submitted to a tariff that enabled a few favored citizens to fleece the rest of us.—*Toronto Globe*.

Adam told that yarn to Eve—Are you on?
He told the same thing! He told the same thing!
He told that yarn to Eve,
And the serpent made them leave.
Are you on? Are you on? Are you on?

As long as the mechanics who build houses are compelled through small wages to live in contracted boarding house apartments, owners will be confronted with the empty house problem. If houses could be shipped from abroad we would have heard of the panacea of a duty on foreign houses long ago.—*Toronto Globe*.

In the days of old Ramesses—Are you on?
They told the same thing! They told the same thing!
In the days of old Ramesses
That story had parallels.
Are you on? Are you on? Are you on?

CANADIAN protectionists fear the light of argument and strive to persuade themselves that the tariff is not an issue in the Presidential campaign.—*Toronto Globe*.

This is a mean, low-down fling at the *Empire*, which, by the way, is like the ostrich, which is said to hide its head in the sand in the presence of danger. If there ever was a time when Canadian protectionists were interested in a political question in another country, it is in the result of the Presidential campaign in the United States. The *Empire* seeks to disguise the importance of it to us; but if the Democratic party win the day it will have a very depressing effect upon Canadian manufacturing industries.

"PROFIT-SHARING in the United States," by Nicholas Paine Gilman, has been reprinted in pamphlet form from the *New England Magazine* for September, 1892. Mr. Gilman is one of the most prominent leaders of this new and humane movement, which has for its object the inauguration of a wage system that will assure to those who labor a larger and more equitable share of the wealth which they produce, and in this admirable historical sketch of the progress made in that direction in the United States he has given his readers and the public generally some very strong proofs of its practicability and solid worth, and has pointed out the benefits derived from it in a way that can leave no doubt as to its efficacy and remedial power in the solution of the much-discussed and vexatious labor problem.

It would seem that both the *Globe* and the *Empire* are edited by a syndicate of simplotons, judging from their similarity of ideas regarding economic questions in the United States. The *Empire* proclaims that the Democratic party are not "agin" protection, and that Mr. Cleveland is a good pro-tariff man; and the *Globe* contends that protection "is clearly contrary to the spirit of the constitution" because all revenue bills passed by Congress are styled "an act to raise revenue." We kindly impart to our contemporaries the fact which has never seemingly penetrated their brains, that the Supreme Court of the United States, the highest judicial tribunal in the land, have most emphatically declared that Congress has a constitutional right to pass what is called "protective tariff" legislation.

CANADA does not want annexation, according to the testimony of some of her trade editors. "No entangling alliances," say they. Very well; Canada may "decline with thanks" Uncle Sam's generous advances, but she should remember that the days of chivalry are not altogether past. Abductions sometimes occur even now.—*Chicago American Artisan*.

To abduct is to take surreptitiously by force; to take wrongfully, and usually by violence; to steal either with or without consent. The "chivalry" the *Artisan* alludes to is of that disreputable character which honorable people do not indulge in. The "generous advances" of Uncle Sam remind us of the theological deduction of the pharasnical thief who argued thusly: "The earth and all that is contained therein is the heritage of the Lord's children, and, being one of His children, all that I can lay my hands on is mine."

THE Canadian carpet factories are still watching the customs closely, but nothing final has yet been achieved. A member of the Armstrong Carpet Co., of Guelph, said to one of our staff last month that an increased duty was hoped for on all kinds of carpets and rugs. He further remarked that Canada required nothing less than a "McKinley bill," and that all the manufacturers there would rejoice to see it.—*Philadelphia American Carpet Trade*.

This describes the situation precisely. We have the capacity to manufacture all the carpet we need, and would do so if we had proper tariff protection. The goods we now produce are just as good and substantial as can be made, but the country is flooded with cheap stuff, which cannot compare in value or durability with what we produce. We need to shut out this cheap foreign carpet. Competition among our manufacturers will ensure reasonable prices.

The coming Grit convention meets for the purpose of considering certain figures on the wall:—

HOUSE OF COMMONS.

Conservatives	144
Grits	71

Majority

Perhaps they will first satisfy themselves upon that point and then adjourn. Possibly, also, the discussion may be somewhat "unrestricted."—*Empire*.

The fact that the figures are as stated is not as much a matter for rejoicing with the manufacturers as the *Empire* would make believe. With a more than two-thirds majority in the House, the leaders of the dominant party feel themselves secure in ignoring the reasonable requests of the manufacturers

to whose votes and influence they owe so much. This beastly majority will not be so large after the next election if the reasonable requests of the manufacturers do not receive more attention in the meantime than what is now being bestowed upon them. This is strictly confidential, and not to be repeated out of the family.

SIR HENRY TYLER, president of the Grand Trunk Railway, who is expected in this city within the next day or two, is a firm believer in reciprocity. To a reporter at Montreal he said:—"I know the situation is difficult since the passing of the McKinley law. But what does the difficulty show? Why, that Canada and the United States should meet in a friendly way and pass a measure of reciprocity between the two countries, and then live in peace and good fellowship side by side. There should be nothing impossible in that." That is a sensible suggestion, and should meet with the approval of all good citizens, but it will never be endorsed by the combines, or by those politicians and newspapers on both sides of the border who take delight in fomenting international strife.—*London Advertiser*.

This is indeed a sensible suggestion; but the *Advertiser* knows that Canada has been endeavoring to effect a reasonable measure of reciprocity with the United States for many years, and that the reason such reciprocity has never been effected was because the United States would not agree to it. But we want no unrestricted reciprocity, which the *Advertiser* knows, means annexation.

A NEWS item going the rounds is to the effect that the plans of Canada's quarters at the World's Fair have just been presented to the director-general. In general dimensions the building will be 86 by 65 feet, including the broad veranda that will surround it on three sides. Entering the broad vestibule in front, a reception hall, 39 by 32 feet, will be provided for guests; to the left is a suite of offices for the commissioners; beyond that a corridor divides the floor in Greek cross fashion, and still beyond are the rooms set aside for the Ontario Provincial representatives. On the other side of the main hall are Quebec's rooms. Opposite the main entrance, at the extreme of the main hall, is a stairway that leads to the upper floor. On this floor Manitoba and British Columbia have their quarters, the other rooms being reserved for committee meetings. The whole house will be built of native material and finished in Canadian wood. It will be a commanding structure. Considering the elegance and extent of these accommodations for the officers, and the poverty and insufficiency of the accommodations for exhibits, reminds one of the times down South during the war, when a wagon was required to haul the money with which to purchase a basketful of marketing.

MR. JAMES P. MURRAY, president of the Toronto Carpet Manufacturing Company, has written a letter to the Central Ontario School of Art and Design, in which he offers an annual prize of \$25 for the best working design for an ingrain carpet. He states that in his factory he expects to purchase annually from one to two hundred designs for ingrain carpets; and his desire is that the School of Art and Design shall open a class for textile designing, and have for one of its objects

the production of designs suitable for carpets. The managers of the school have published Mr. Murray's letter in circular form for distribution to those who may be interested; and in the circular they allude to the fact that what is said regarding designing for carpets is also applicable to other branches of design, such as wall-paper, stained glass, ornamental iron work, furniture in wood and metal, book-binding, textile fabrics such as dress goods, table drapery, etc., jewelry, engraving, and other industries. Mr. Murray's letter is put forth by the school with a view to stimulating sympathy with art movements and with the hope that the efforts they are putting forth to establish a vigorous art school in Toronto will be duly recognized by the public. The fact that the School of Art and Design deem Mr. Murray's letter of sufficient importance to print and distribute, should commend it to manufacturers to whose products art may be applied, and induce them to take more interest in supporting an institution of this character in our midst. They should consider the propriety of giving the school some substantial assistance in a way that could be relied on in forwarding the work they have in hand.

It was the sincere wish and hope of many of the friends of *Grip* that under its new editorial management some of the bitter, unrelenting un-Canadian sentiments which had characterized it would disappear, and a somewhat more enlightened and liberal spirit prevail. But this is not to be, judging from what it says about Sir John Thompson and his probable succession to the premiership. It declares that this gentleman would not be acceptable to the people of Ontario, that it would be a national misfortune if such a choice should be made; that the Conservative party should rather put forward some man of second-rate ability, or respectable nonentity in preference to one who embodies the worst characteristics that have made Toryism a discredited epithet, and lots more of such stuff. It says it does not object to Sir John on account of his religion, but it accuses him of every conceivable objectionable thing because he happens to be a Catholic. It calls him a reactionary and an ultramontane devoted to the political designs of the hierarchy; and says that as a judge he disgraced the bench by the brutal severity of his sentences, therefore and for these reasons he is not a proper man to be premier. The religious convictions of *Grip* are not of a character to cause it to go into hysterics because of Sir John's religious belief, for it knows that he is only exercising a right which is very precious to all freemen—the right to worship God according to the dictates of his own conscience; and as to the disqualification because of severe judicial sentences, if he had done wrong in that direction—if he was a bloody Jeffries, as *Grip* would make believe, an impeachment process was available. *Grip* desires to stir up animosity against Sir John through appeals to religious prejudice, hoping thereby to drive one of the ablest and purest men in Canada away from the Government. And this not because he is a Catholic, but because he is a protectionist and a staunch upholder of the National Policy, which *Grip* is not, and which it would like to see destroyed. And that's just the sort of a bird *Grip* is.

There is a wonderful almanac coming in Canada, nearly four hundred pages, with colored maps, to be known as the *Star Almanac*, and to be published by the publishers of the *Montreal Daily and Weekly Star*. It is to be ready very shortly. So much has it been admired that the publishers have received security for this publication for fifty thousand copies.

When a woman of such unquestionably high position in New York society as that occupied by Mrs. Burton Harrison consents to define the best and most careful social laws for girls, our young women can well afford to listen and remember. There is every indication for a most agreeable interest in the series of articles on "The Well-Bred Girl in Society," which Mrs. Harrison will begin in the November issue of *The Ladies' Home Journal*. Mrs. Harrison will, in this series, take up every phase of a girl's life in society, and point out to her principally the mistakes it is wisest for her to avoid.

The near approach of winter brings Christmas and Christmas literature prominently before us. A remarkably attractive holiday souvenir is promised us by the Sabiston Litho. & Publishing Co., publishers of *The Dominion Illustrated Monthly*, in the shape of a special Christmas Number of a novel and attractive design. It will comprise a number of stories and poems by the best writers in the Dominion, all profusely illustrated photogravure, and will also have three large colored supplements, entitled, "Christmas Morning"

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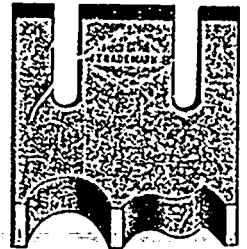
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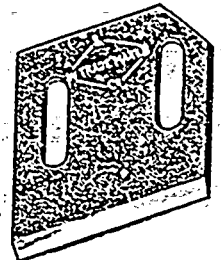
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THE E & G GURNEY CO. TORONTO, ONT.

(from the painting by Harris); "The Rise and Fall of a Canadian Politician," and "The Nursery Calendar for 1873." We bespeak the number a hearty welcome.

THE Russell Publishing Company, Boston, Mass., have sent us the initial number of their new illustrated magazine, *The Whole Family*. It is unique in that it is claimed to be the only magazine published in which instruction and entertainment are provided for every member of a family. Its different departments include the household, fashions, nursery, farm and flowers, etiquette, King's Daughters, popular science, woman's work, art, music, sports and pastime, etc., and all for only seventy-five cents per year. It will contain in each number not less than twenty-four large pages, and every article and story admitting of illustration will be accompanied by beautiful pictures, and every number will be embellished with a large engraving suitable for framing. Address Russell Publishing Company, 196 Sumner St., Boston, Mass.

SARA JEANNETTE DUNCAN contributes the opening article in *The Popular Science Monthly* for November. It is a study of the mixed race of India, which she calls "Eurasia," in the author's most delightful vein, and affords a vivid picture of life in the great East Indian cities. "The Scientific Societies of Italy," a historical account of the organizations for scientific discovery in the land of Columbus and Galileo, will be contributed by W. C. Cahall, M.D. "The Natural or Scientific Method in Education," will be treated by Dr. Wesley Mills. The paper is based upon what is known as to the way in which the brain receives and assimilates impressions. What things are being most earnestly studied to-day in the field of mental science are pointed out by Dr. Joseph Jastrow, in a paper on "The Problems of Comparative Psychology." Many interesting resemblances have been found between the minds of animals and savages and those of civilized children, and much light has been thrown on mental problems by the study of mind in decay or an arrested development. Under the title "Economical Trees," some curious cases will be described by Frederick Le Roy Sargent, where injured trees have sent roots into decayed parts of their own trunks, and utilized the products of their own decay. The article is illustrated.

THE October *Wide Awake* is a real "Discovery Number," alike in text and illustrations. Its frontispiece is a drawing by Mey-

nelle, "In 1492," and shows a group of children waving their good-byes to Columbus as he sets sail on his quest for a new world. Elbridge S. Brooks gives a brief narration of the Irishman whose presence in the crew of Columbus has been discovered by Mr. John Fiske. Carrie Hyde tells the brief story of the coming of the discoverers from an Indian boy's standpoint. Theron Brown's stirring ode and chorus, "In 1492," fitly introduces this "Discovery Number." This song has been set to taking music by Prof. E. C. Phelps. The rest of the number is full of excellent things. There is a characteristic southern story by Richard Malcolm Johnston, "The Bee Hunters;" an astronomical story, "The Youngest Planet and how he became a Comet," by Helen Clarkson; the story of Cinderella, modernized by H. S. Huntington; a description of that rough-and-tumble college sport, "A Cano Rush," by Malcolm Townsend; "I Spy," a boy's story, by John Preston True; an after-summer memory, "A Fresh Air Girl," by Grace Mildred Thompson; an account of the life of "The Diver," by H. P. Whitmarsh; "Some Simple Astronomy," by Vesper L. George; a sketch of adventure "On Board a Pirate Junk," by Lieut.-Col. Thorndike, and culminating chapters in the two serials, "The Coral Ship," and "That Mary Ann." The poetry consists of verses by Ella Wheeler Wilcox, Juliet C. Marsh, Lillian Crawford True, Mary E. Blake and Mary Harding Conolly Price, twenty cents a number, \$2.40 a year. D. Lothrop Company, Publishers, Boston.

THE Hobbs Hardware Company, London, Ont., have sent us a copy of their new catalogue and price list, in which is illustrated and described about every line of goods handled by them. The index of articles is alphabetically arranged, and covers thirty-seven pages, there being from a hundred to a hundred and twenty items enumerated on each page. Thus it is seen that the index of itself would make quite a large book. There are 1,116 pages in the book. Included in the large variety of articles to be found in the stores of this company, are builders' hardware, house furnishings, mill supplies, machinists' supplies, ship chandlery, carpenters' tools, shoemakers' tools, blacksmiths' and farriers' tools, ice tools, angle, bar, rod, hoop, plate and sheet iron, stove-makers' and tinnery's supplies, copper and brass rods, bolts, sheets, and wire cloth, household utensils, cutlery, etc. There are full directions for ordering circular and other saws, and a chapter of information concerning

THE Canadian Manufacturers' Association

W. K. McNAUGHT, President J. J. CASSIDEY, Secretary GEORGE BOOTH, Treasurer

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

TELEPHONE 1274.

THE OBJECTS OF THIS ASSOCIATION ARE:

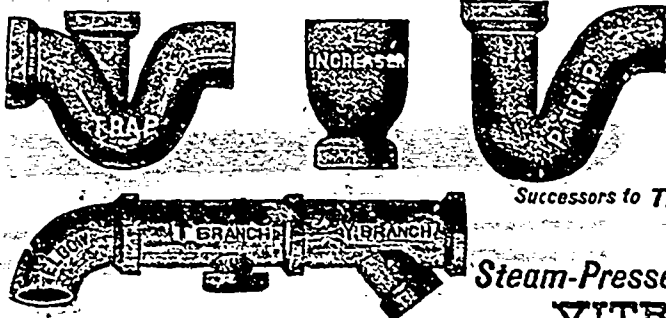
- To secure by all legitimate means the aid of both Public Opinion and Governmental Policy in favor of the development of home industry and the promotion of Canadian manufacturing enterprises.
 - To enable those in all branches of manufacturing enterprises to act in concert as a united body whenever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

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

J. J. CASSIDEY, Secretary.

HENRY NEW, Pres. J. H. NEW, Vice-Pres. A. E. CARPENTER, Sec.-Treas.

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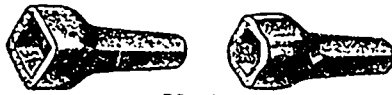
them. Large space is given to glass, reference being had to English and Belgian sheet glass for all purposes, plate glass, mirror plates, the silvering of which is done by the company, window glass, enamelled and etched glass and stained glass for door panels, fanlights, borders and ornamental work, leaded glass, church and memorial windows, etc. Illustrations of these glasses are shown in different colors. Paints are mentioned, and those ready mixed, and kalsomines are shown in all the colors in which they are made.

The book itself is a splendid specimen of workmanship and material—first class in every respect—paper, printing, illustrations, arrangement of matter, presswork and binding, and reflects much credit upon the printers and binders of London, where the book was made. The Hobbs Hardware Company deserve great credit for the enterprise they have shown in getting up and issuing what is one of the finest, if not the very finest, trade catalogues that has come under our observation in Canada.

REVERSIBLE RATCHET WRENCH.

The illustrations here with shown are of the "Favorite" reversible ratchet wrench manufactured by Messrs. Greene, Tweed & Co., New York City.

Some of the facts and valuable points claimed for this wrench are:—After placing it in position for use, its motion is continuous until the nut is removed or seated. In the use of other wrenches it becomes necessary to remove the wrench every quarter turn, consuming time in removing and replacing it, whereas in using this wrench there are thirteen grips in each revolu-



SOCKETS.



HEAD

THE FAVORITE REVERSIBLE RATCHET WRENCH

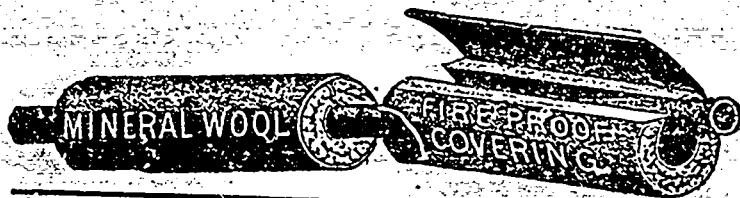
tion, making it possible to use it in much narrower places than an ordinary wrench. The head or barrel is made to fit a square nut at one extremity, and a hexagon nut at the other, having an opening for the bolt to pass through, making it valuable for the reason that the nut, being encompassed on all sides, cannot slip or turn, thereby avoiding all danger of defacing the nut. This alone should commend it to users of machinery. Its reverse motion is instantaneous by simply turning the pawl from right to left, or vice versa. It is in use on some of the largest railroads in the United States and other countries.

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

Our covering is the best fuel saver on the market.

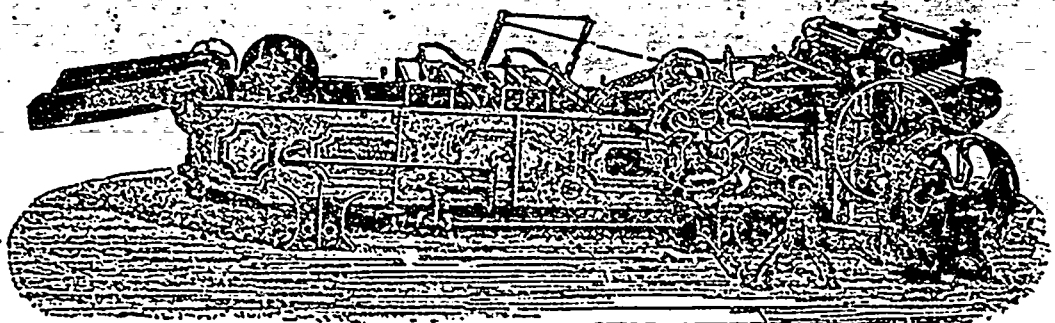
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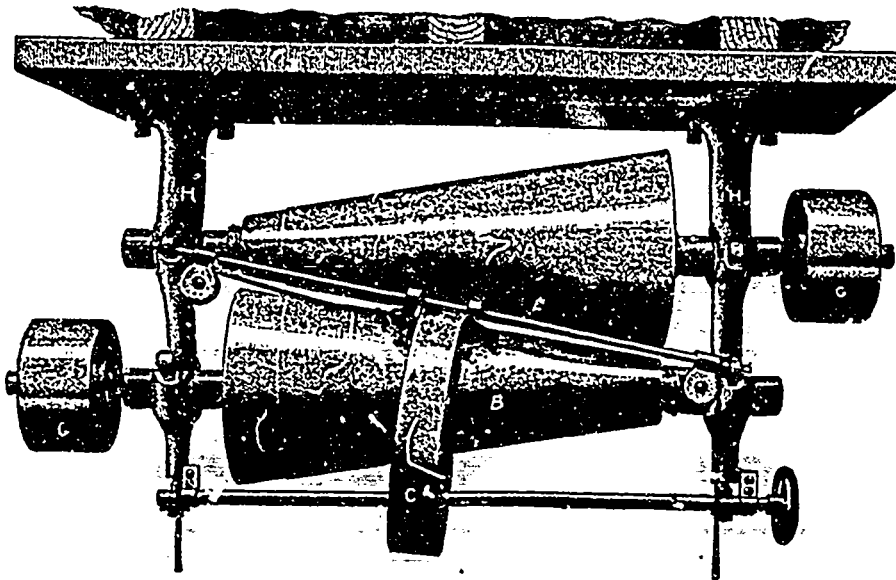
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THE EVANS FRICTION CONE.

The accompanying illustration is of the Evans Friction Cone device for graduating speed of shafting. The device is simple and is operated upon the principle of frictional gearing. Motion being desired, the ring of leather is moved endwise by a suitable shipping arrangement, and by reason of the ring filling up the space between the cone pulleys, motion is imparted from the driving to the driven cone pulley, and so on to the machinery. By reversing the shipper, and thereby throwing the leather ring into its first position upon the parallel portion of the cones, the machine is quickly brought to a state of rest. Cylindrical pulleys and drums are also operated by this device by suitable motions, whereby the pulleys are moved to or from each other, the leather ring imparting motion to the lower pulley from the upper one.



THE EVANS FRICTION CONE.

The manufacturers claim that this system is specially adapted for driving dynamos. Included in these advantages are—There is no loss of room by reason of long lines of belting; all of the space is available, more than double the number of dynamos can be put in the same space than by ordinary belting. In the erection of new stations or the increase of old, a very large saving is realized. There is no slip, consequently there is less loss of power in transmission, and a steadier light is obtained. There is also less

pressure on the bearings than by ordinary boltings, for the same amount of power. There is great saving in belts and pulleys; although these driving pulleys are heavier than ordinary pulleys, there is a saving in cost, as only one-half the number is required, for each pulley can drive two dynamos. The dynamo pulley is placed in immediate contact with the

driving pulley. No clutches or belt holders are necessary, for this system is a clutch in itself. Each and every dynamo can be stopped or started independently of every other, without slowing or stopping the engine. Where the load is intermittent and subject to sudden changes, as in street railway work, this system adapts itself promptly and effectively, without the unsteady motion of other belting. This system obviates the necessity of long flying bolts, which carry a large amount of dust; and not only is the room cleaner, but the bearings are freer from grit. In the company's catalogue is given a partial list of parties who have adopted this

system to drive dynamos; and many testimonial letters setting forth the advantages of the system for that purpose. A long list is also given of different manufacturing concerns who use it and recommend it, including machinists, printing houses, woolen mills, cotton and print mills, etc.

This system is controlled by the Evans Friction Cone Co., Boston, Mass., and in Canada by the Jencker Machine Co, Sherbrooke, Que.

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W. H. LAW,

Inventor.

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INVENTIONS.



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

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office from August 24th to 31st, 1892, inclusive.

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

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

MECHANICAL.

- 40,003 Motor for vehicle and boat, W. A. Minnix, August 24th.
- 40,004 Ore concentrator, W. J. Hammond and J. Gordon, August 24th.
- 40,005 Horse blanket, G. and W. Sisson, August 24th.
- 40,006 Vehicle cleaning device, J. E. Cook, August 24th.
- 40,007 Muffle furnace, C. H. Laud, August 24th.
- 40,008 Cattle guard for railways, B. Wolhaupter, August 24th.
- 40,009 Regulating the power and speed of turbines, J. L. Furia-kovics, August 24th.
- 40,010 Rotary engine, The Ward Motor Co., August 24th.
- 40,011 Wood screw and method of making same, The Russell & Erwin Mfg. Co., August 24th.
- 40,012 Direct acting steam pumping engine, L. d'Auria and A. M. Robert, August 24th.
- 40,013 Ironing and polishing machine, C. O. White and M. B. Lloyd, August 25th.
- 40,014 Boomerang, C. H. Emerson, August 25th.
- 40,015 Boomerang gun, C. H. Emerson, August 25th.
- 40,016 Syringe, J. Lalonde, August 25th.
- 40,017 Dispensing liquids, W. M. Fowler, August 25th.
- 40,018 Hand dating stamp, H. T. Pritchard, August 25th.
- 40,019 Dyeing and steaming of aniline black dyed cotton yarns, C. Schuurch, August 25th.
- 40,020 Fish way, J. Bower, August 25th.
- 40,021 Raising of sunken vessels, C. H. Brown, August 25th.
- 40,022 Compound adapted as a substitute for glass and other articles, T. Eckstein, August 25th.
- 40,023 Track-laying apparatus, R. E. Hurley, August 25th.
- 40,024 Composition of roof, E. W. Rathbun, August 25th.
- 40,029 Lifting jack, C. A. Hooker and W. Hatch, August 25th.
- 40,030 Sash balance, B. H. Rose, August 25th.
- 40,031 Safety gas cock, J. Clark, August 25th.
- 40,032 Steam and air injector, F. Leadbetter, August 25th.
- 40,034 Bicycle, S. Ortaek, August 25th.
- 40,036 Combined penholder and bottle, F. von Eulendorf, August 25th.
- 40,037 Staging, C. A. Dodge, August 25th.
- 40,038 Bottle stopper, G. F. Atwood, August 25th.
- 40,039 Automatic vending apparatus, T. C. Kirkham, August 25th.
- 40,040 Gate, W. Chambers, August 25th.
- 40,041 Thill coupling, L. A. Batty, August 25th.
- 40,042 Catch basin for sewer, J. A. Hershberger, August 25th.

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PATENTS

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

Counsel Work undertaken in Patent Causes.

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

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

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G. de G. LANGUEDOC, PATENT SOLICITOR,

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.

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

EXPERT and
SOLICITOR

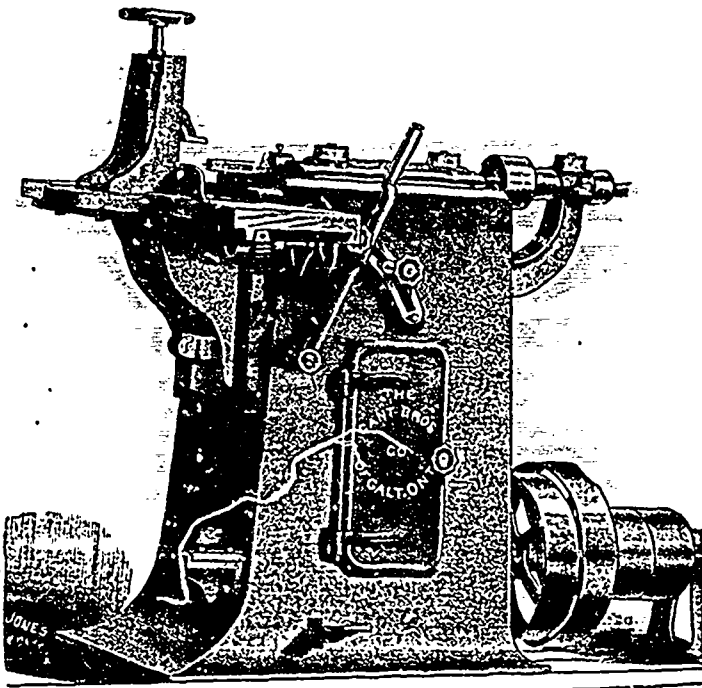
PATENTS,

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

- 40,043 Hand winch for ship masts, F. Uhlig, August 25th.
- 40,044 Sheet metal can, F. B. Hiddon, August 25th.
- 40,045 Stove, L. F. Wilcox, August 25th.
- 40,046 Hub boring machine, A. Bonner and T. J. Champion, August 25th.
- 40,047 Freight elevating and transporting apparatus, J. A. Russell, August 25th.
- 40,048 Heating system, J. H. Griffith and J. T. Eskey, August 25th.
- 40,050 Producing seamless compound wire, Burdon Seamless Filled Wire Co., August 25th.

- 40,051 Car heating, The Consolidated Car Heating Co., August 25th.
- 40,052 Combined gigning and shearing machine, H. S. and T. H. Greene, August 25th.
- 40,054 Latho, C. S. Harmon, August 25th.
- 40,055 Street car heating apparatus, Consolidated Car Heating Co., August 25th.
- 40,056 Fire extinguisher, H. A. Mansfield, August 25th.
- 40,057 Manufacture of water proofed paper, W. L. and F. C. Jamieson, August 26th.
- 40,058 Dohorning instrument, S. S. Kimball, August 26th.
- 40,059 Blow gun, W. M. Bunson and J. W. Skinner, August 26th.
- 40,060 Boiler cleaner, W. Polby, August 26th.

- 40,061 Treatment of plants, for protecting and curing them of diseases, I. A. F. Bang and M. C. A. Rullin, August 26th.
- 40,062 Boots and shoes, G. Bryant, August 26th.
- 40,063 Washing machine, H. Fanteux, August 26th.
- 40,064 Spark arrester, H. C. Smith, August 26th.
- 40,065 Furnace damper regulator, L. F. Smith, August 26th.
- 40,066 Attaching buttons to garments and the like, E. Noelle, August 26th.
- 40,067 Scouring and dyeing yarn, W. Blackburn et al, August 26th.
- 40,069 Spring motor for screw propellor, A. G. Heath and W. M. Sandford, August 26th.
- 40,070 Crushing mill, J. N. and W. Paxman, August 26th.
- 40,071 Pot lid or cover, E. G. Copelin, August 26th.
- 40,072 Hot blast stove, C. H. Footo, August 26th.
- 40,074 Pressing sand-faced bricks, W. Johnson, August 26th.
- 40,075 Tool for manufacturing cocks, bibbs, valves and parts thereof, F. Taylor, August 26th.
- 40,076 Breaking, stutching and dressing flax and other vegetable fibre, R. A. Fraser and A. Pack, August 26th.
- 40,077 Decorticating ramie and other textile plants, P. Fauro, August 26th.
- 40,078 Knitting machine, R. W. King, August 26th.
- 40,079 Printing press, W. B. Lawrence, August 26th.
- 40,080 Destroying smoke and apparatus for that purpose, E. E. Dalior, August 26th.
- 40,081 Lounge, C. Mee, August 26th.
- 40,082 Signal rocket for vessels, T. W. Hand and W. Toale, August 26th.
- 40,084 Art of casting in metals, W. Haydon, August 26th.
- 40,085 Cigarette machine, J. S. Bohamain, August 26th.
- 40,086 Printing machine, C. B. Cottrell, August 26th.
- 40,087 Game, O. M. Hubner, August 26th.
- 40,088 Conveying grain, F. E. Duckham, August 26th.
- 40,089 Self re-ascending motor, P. Baldensperger, August 26th.
- 40,090 Wheels of road vehicles, H. Moore, August 26th.
- 40,091 Fireproof door, R. Hallenstein, August 26th.
- 40,092 Breech loading gun, P. T. Godsal, August 26th.
- 40,093 Making nets for fishing, etc., W. Stuart, August 26th.
- 40,094 Gas tap or cock, L. Heppenstall, August 26th.
- 40,096 Engine in which gas is generated from petroleum, etc., Tangyes, La, August 26th.
- 40,097 Copy holder, G. H. Grabo and J. W. Snyder, August 26th.
- 40,098 Explosive shell, H. P. Merriam, August 26th.
- 40,103 Hemmer, S. Laskoy, August 26th.
- 40,104 Flexible metal tubing, G. Counnichan, August 26th.
- 40,105 Wind wheel, W. J. Althouse, August 29th.
- 40,106 Stone cutting and stone dressing, W. Errington, August 29th.
- 40,107 Manual motor, L. R. Sheen, August 29th.
- 40,108 Car coupling, G. Cassady, August 29th.
- 40,110 Cogged wheel, J. F. Pfetch, August 30th.
- 40,111 Axle and thread cutter, F. E. Beardsley, August 30th.
- 40,112 Car coupling, A. W. R. and O. S. Hammond, August 30th.
- 40,113 Car coupling, J. Teel, August 30th.
- 40,114 Money changer, H. R. Loranger and G. A. Duclos, August 30th.
- 40,115 Burial casket, T. McGovern, August 30th.
- 40,116 Pulp opener, C. Kellner, August 30th.
- 40,117 Artificial silk filament, H. do Chardonnet, August 30th.
- 40,118 Car coupling, O. P. Conley, August 30th.
- 40,119 Horse holder, J. Bell, August 30th.
- 40,120 Horse blanket, S. Latham, August 30th.
- 40,121 Swath turner, E. C. Blackstone, August 30th.
- 40,122 Window cleaning chair, W. M. Reynolds, August 30th.
- 40,124 Tool for clamping timber, J. J. B. Lillington, August 30th.
- 40,131 Spark arrester, J. Thornton, August 30th.
- 40,132 Hoisting apparatus, The Springfield Foundry Co., August 30th.



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- 40,183 Earth auger, W. A. Howe, August 30th.
 40,134 Fruit gatherer, W. H. Wentworth et al, August 30th.
 40,135 Heel trimming machine, The Acme Heel Trimmer Co., August 30th.
 40,137 Sad iron, A. Carman and M. Martin, August 30th.
 40,138 Toy, M. Lyman, August 30th.
 40,139 Coin controlled apparatus for telephones, W. Gray and C. Soby, August 30th.
 40,140 Vapor burner, W. M. Abbott and H. K. Flagler, August 30th.
 40,141 Vapor burner, W. M. Abbott and H. K. Flagler, August 30th.
 40,142 Revolving and elevating screw propeller of a boat, W. H. Thompson and G. Morris, August 30th.
 40,143 Forging horseshoe nails, A. M. Putnam and G. N. Fletcher, August 30th.
 40,144 Car coupling, C. E. Seabury, August 30th.
 40,145 Scrubbing machine, J. Meehan, August 30th.
 40,146 Air brake, H. McNulta, August 30th.
 40,147 Variable cut-off engine, J. Abell, August 30th.
 40,148 Washing machine, B. Brobst, August 30th.
 40,149 Clamp for dental flask, M R B Creery, August 30th.
 40,150 Wagon, J. Wigand, August 30th.
 40,151 Spring rail frog, H. Elliot, August 30th.
 40,152 Copy holder, C. E. Brunthaver and J. J. O'Connell, August 30th.
 40,153 Door, W. T. Gregg and D. F. McIntire, August 30th.
 40,154 Grater, A. E. Thombs, August 30th.
 40,155 Threading bolt, E. Hubner, August 30th.
 40,156 Sheep shearing, G. W. Blanks et al, August 31st.
 40,157 Trapping soil pipes, drains, sewers and the like, D. G. Hoey, August 31st.
 40,158 Filter and heater for steam boilers, W. Dougherty, August 31st.
 40,161 Grain conveyor for harvesters, J. S. Davis, August 31st.
 40,162 Rail joint, R. Roxby, August 31st.
 40,163 Hay rack, W. T. Wallace, August 31st.
 40,164 Boring machine, C. H. Irwin, August 31st.
 40,167 Band saw mill, C. M. Emerson, August 31st.
 40,168 Composition for building blocks, E. H. Lewis, August 31st.
 40,169 Operating gas engine, H. Hoellys, August 31st.
 40,171 Tanning hides, W. Zahn, August 31st.
 40,172 Car coupler, J. E. Walker and C. F. Hunt, August 31st.
 40,173 Duplicating machine, R. Morgeneur and P. Bergeton, August 31st.
 40,174 Valve G. B. Moore, August 31st.
 40,175 Attachment for raising the cutter bar of a mower, D. Maxwell, August 31st.
 40,176 Heater, F. C. Peleter, August 31st.
 40,177 Hydrant, A. Scheid, August 31st.
 40,178 Car heater. The Consolidated Car Heating Co., August 31st.
 40,180 Car brake, C. L. Ames, August 31st.
- ELECTRICAL.
- 40,025 Underground conduit for electric wire or cable, C. C. Gilman, August 25th.
 40,026 Electric arc lamp, S. P. Parnly, August 25th.
 40,033 Ampere volt potential controller, H. A. Voelkner, August 25th.
 40,035 Electrical medical apparatus, J. C. Chambers, August 25th.
 40,049 Electro medical apparatus, coil and battery, T. C. Hodgkinson and H. T. Tompsitt, August 25th.
 40,068 Heating and welding by electric arc, H. Howard, August 26th.
 40,083 Telephonic transmitter, A. F. Collier, August 26th.
 40,095 Incandescent electric lamp, E. E. Weaver et al, August 26th.
 40,099 Phonograph, T. A. Edison, August 26th.
 40,100 Phonogram blank, T. A. Edison, August 26th.
 40,101 Phonograph, T. A. Edison, August 26th.

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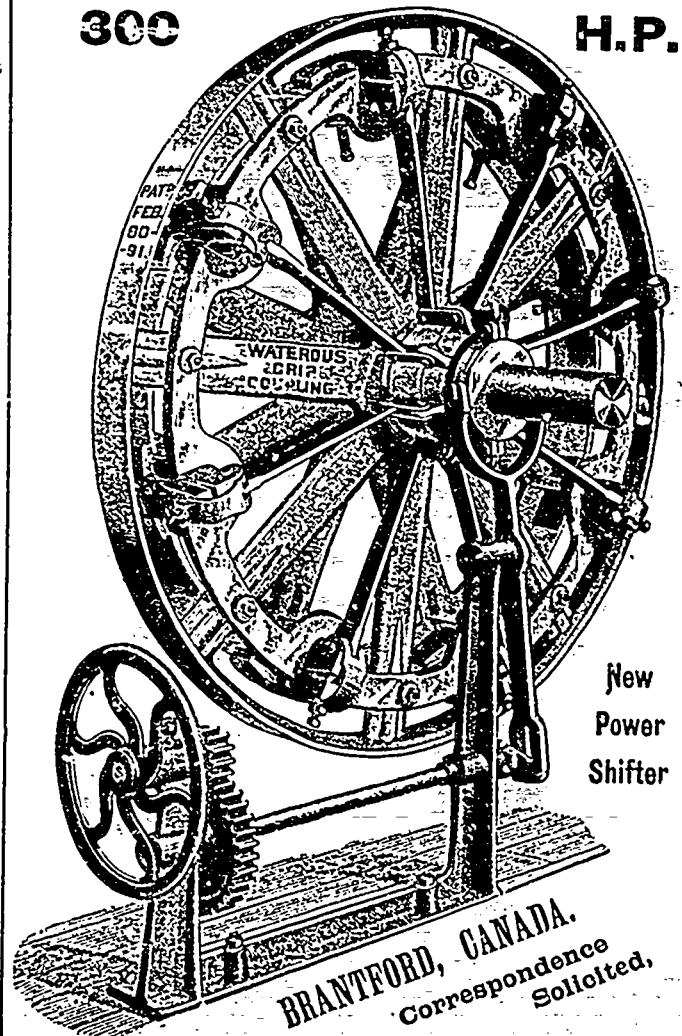
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- 40,102 Phonogram blank, T. A. Edison, August 26th.
- 40,109 Electric railway signal, W. J. Smith and J. W. Fox, August 30th.
- 40,123 Sub-dividing electric current, W. Simpson, August 30th.
- 40,125 Automatic determining device for phonographs, T. A. Edison, August 30th.
- 40,126 Automatic determining device for phonographs, T. A. Edison, August 30th.
- 40,127 Automatic determining device for phonographs, T. A. Edison, August 30th.
- 40,128 Automatic determining device for phonographs, T. A. Edison, August 30th.
- 40,129 Phonogram blank, T. A. Edison, August 30th.
- 40,130 Phonograph, T. A. Edison, August 30th.
- 40,136 Electric arc lamp, T. P. C. Crampton and A. Essinger, August 30th.
- 40,160 Electric signal box, W. E. Decrow, August 31st.
- 40,165 Calelectric generator, E. G. Acheson, August 31st.
- 40,166 Motor, W. G. MacLaughlin, August 31st.
- 40,170 Electrical insulating composition, E. Fahrig, August 31st.
- 40,179 Obliterating sound records for record tablets, D. W. Brown, August 31st.

SCIENTIFIC PROCESSES.

- 40,027 Treatment of precipitates formed in the recovery of glycerine from spent soap lye, J. S. Kirk & Co., August 25th.
- 40,028 Recovering salt and crude glycerine from spent soap lye, J. S. Kirk & Co., August 25th.
- 40,053 Treatment of matte obtained from ores of nickel containing copper, etc, The Canadian Copper Co., August 25th.
- 40,073 Treatment of liquid hydrocarbon, J. H. W. Stringfellow, August 26th.

The Actiengesellschaft fur Anilin Fabrikation, for whom Messrs. Middleton & Meredith, Montreal, are Canadian agents, have placed on the market a new red for wool and silk, under the name of Emin red. This dyestuff is sent out in the form of a scarlet powder, not soluble in cold water, and only slightly soluble in boiling water. Notwithstanding this, it dyes wool and silk fairly evenly and without prolonged treatments from a bath of Glauber's salt and sulphuric acid in the usual way, or it may be dyed on wool mordanted with either fluoride of chromo and oxalic acid or with bichromate of potash and tartar, and then dyed at the boil for one hour. Another method of dyeing is to dye with bisulphate of soda for 45 minutes at the boil, and then add fluoride of chromo and continue the dyeing for 30 minutes longer. The dyestuff is a strong coloring matter; with 1 per cent. a good scarlet is obtainable, with 3 per cent. a deep, reddish scarlet. The color is quite fast to soaping, so that Emin red will be exceedingly useful for dyeing reds on goods that have to be milled. There is no perceptible tendency to bleed. Acids have little action on the color, turning it only a shade darker, while alkalis have no action.

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

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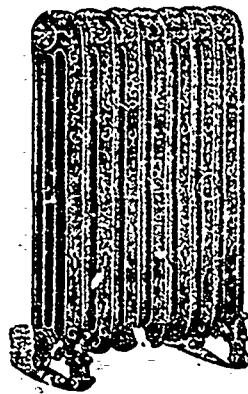
The Standard Drain Pipe Co., St. Johns, P.Q.

Manufacturers of Salt Glazed Vitrified Sewer Pipes, Double Strength Railway Culvert Pipes, Inverts, Vents, and all kinds of Fire Clay Goods. The Standard Drain Pipe Co., of St. Johns, P.Q., Ltd. W. C. THORNER, Pres.

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Captains of Industry.

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

Mr. J. E. LEWITT, Guelph, Ont., is building a new knitting factory.

MESSRS. NICKERSON BROS. saw mill at Collingwood, Ont., was destroyed by fire October 18th, loss about \$3,500.

The tannery of Mr. Thomas Ecroyd, at St. Henri, near Montreal, was destroyed by fire September 29th. Loss about \$40,000.

MESSRS. McDOWELL & Co. are starting a basket factory at St. Catharines, which will give employment to thirty or forty hands.

The Dominion Blanket and Fibre Company, Montreal, is being incorporated with a capital stock of \$250,000 to manufacture blankets, etc.

The Barrie Tanning Company, Barrie, Ont., are applying for incorporation with a capital stock of \$40,000 to engage in the tanning of leather, etc.

The J. R. Stouffer Company, Berlin, Ont., manufacturers of covered buttons, suspenders, harvest mitts, etc., are enlarging their facilities for work.

The Defiance Windmill and Pump Company is being incorporated at Toronto with a capital stock of \$25,000 to manufacture windmills, pumps, etc.

The Brush Electric Company of Ontario has been incorporated at Trenton, Ont., with a capital stock of \$50,000 to furnish electric current for commercial purposes.

Mr. W. O. EDWARDS is about commencing the erection of a large lumber mill at Ottawa, on the site of the mill owned by the MacLarens, recently destroyed by fire.

The Weather and Water Proof Paint Company of Canada is being incorporated at Toronto with a capital stock of \$5 000 to manufacture paints, painters supplies, etc.

GOOLD, SHAPLEY & MUIR, Brantford, Ont., has been incorporated with a capital stock of \$100,000 to manufacture refrigerators, faning mills, wind mulls, hay forks, etc.

The Dominion Manufacturing Company, Listowel, Ont., manufacturers of curtain poles, window shade rollers, etc., are about removing their factory to Elmwood, Ont.

The Strathroy Canning and Preserving Company, Strathroy, Ont., which started operations June 15th, are now doing a large business, putting up 10,000 cans per day.

The Robb Engineering Company, Amherst, N.S., have supplied the Windsor Hotel at Montreal with one of their 60 h.p. high speed Robb-Armstrong automatic steam engines.

The Pennington-Baker Seating Company, Dundas, Ont., is being incorporated with a capital stock of \$50,000, to manufacture seating, furniture, architectural wood carving, etc.

The Central Electric Light Company, Montreal, is being incorporated with a capital stock of \$500,000 to furnish electric lights, motive power, electric heating apparatus, etc.

Mr. THOMAS E. HOWARD, Montreal, will start a factory in that city for the manufacture of brass curtain pole fixtures, gas fixtures, stair rods, etc., giving employment to about 75 hands.

The Montreal Auer Incandescent Light Company, Montreal, are applying for incorporation with a capital stock of \$1,000,000 to manufacture works and apparatus for electrical purposes.

The Thomas Nightingale Pressed Brick Company, with head office at Toronto, has been incorporated with a capital stock of \$50,000 to manufacture brick, tile, sewer pipe, terra cotta goods, etc.

The Aylmer Furniture Company, Aylmer, Ont., is being incorporated with a capital stock of \$20,000 to manufacture furniture, etc. Mr. James Hay, jr., Woodstock, Ont., is interested.

WHEN WERE YOUR

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THE BOILER INSPECTION and Insurance Company of Canada.



CONSULTING ENGINEERS.

G.C. ROBB, Chief Engineer. A. FRASER, Secy. Treas.

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TORONTO.

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(Lieut. Govr. of Ontario)

JOHN L. BLAIRIE ESQ. VICE PRES.

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AT THE

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THE MONARCH ECONOMIC BOILER

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

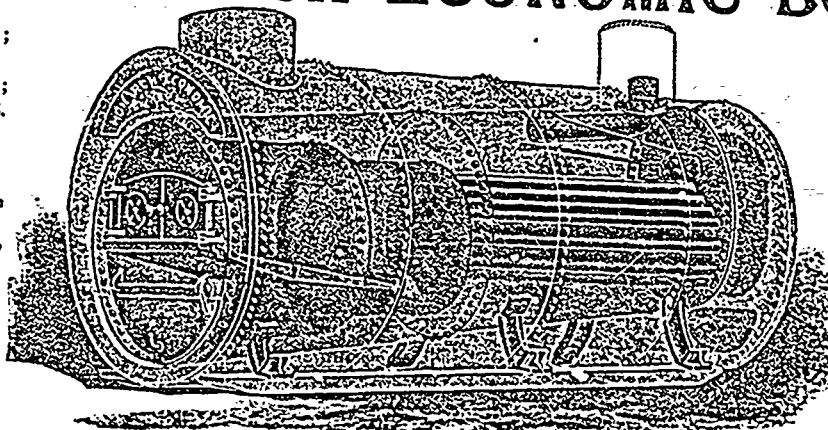
Patented U.S.A. Oct. 5, 1866;
Aug. 23, 1867; May 8, 1868.

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BELTINGS,

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Successors

A. ROBB & SONS
AMHERST, N.S.

THE Central Electric Light Company, Montreal, has been incorporated with a capital stock of \$500,000, to manufacture electric wires and all other necessary appliances to transmit electricity, etc.

Mr. Wm. TALBOT, of Philadelphia, with a staff of experts is at work in the factory of the Toronto Carpet Manufacturing Company in this city, fitting up the machinery for making Axminster carpets.

Mr. A. THOMSON is building a new tannery at Strathroy which will be run by H. Collins, who was burnt out about beginning of September last. The tannery will be completed by end of October.

Mr. Wm. MOORS, who was so favorably known in the works of the Burlington Carpet Company, Mount Holly, N.J., has taken charge of the dyehouse of the Toronto Carpet Manufacturing Company.

THE McKinnon Dash and Hardware Company, St. Catharines, Ont., is being incorporated with a capital stock of \$50,000 to take over and carry on the business of the McKinnon Dash and Hardware Company.

THE Dennis Wire and Iron Works, London, Ont., have occupied their new building and started work. The building is brick, three stories high, 60x40 feet, which gives them twice the floor space of their old premises.

THE Ontario Peat Fuel Company is being incorporated with a capital stock of \$300,000 with headquarters at Toronto, to manufacture peat fuel. Mr. Horace C. Thorne, Toronto, is named as one of the first directors.

THE Cortland Electric Manufacturing Company, with head offices at Toronto, has been incorporated with a capital stock of \$40,000, to manufacture electric supplies, etc. Mr. Harvey Cortland, Toronto, is a provisional director.

THE Ahern Electric Heating and Manufacturing Company, Ottawa, is being incorporated with a capital stock of \$250,000 to carry on the business of supplying heat and light by electricity; to manufacture apparatus for the same, etc.

Messrs. HUNTER BROS., Kincardine, Ont., machinists and manufacturers of iron work, etc., have just completed an iron highway bridge with 174 feet span, at Drayton, Ont., and are at work upon a 110 foot span iron bridge at Kincardine.

THE Beaver Oil Refining Company of Toronto have obtained the use of the Williams oil refinery in Hamilton, Ont., and are experimenting with a patented process for refining Canadian oil which, it is claimed, can be made equal to best American refined oil.

THE Erie Glass Company of Canada, with head office at Toronto and works at Port Colborne, Ont., have been incorporated with a capital stock of \$50,000. This company expect to have their glass works in operation in November, using natural gas for fuel.

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Also CRAIG STREET, MONTREAL.

THE Geiser Manufacturing Co., of Waynesboro, Pa, has written to the civic authorities at Ottawa, to know what inducements they will offer towards the establishment of works in that city. The company makes engines, saw mills, separators, and mowers.

THE Smith's Falls Electric Power Company, Smith's Falls, Ont., has been incorporated with a capital stock of \$60,000 to produce electricity for domestic and municipal lighting and other commercial purposes, Mr. Wm. H. Frost is one of the provisional directors

THE F. F. Dalloy Company, Hamilton, Ont., has been incorporated with a capital stock of \$30,000, to take over and continue the business of Messrs. F. F. Dalloy & Co., and manufacture medicines, drugs, druggists' sundries, blacking, stove polish, baking powders, etc.

THE Goldie & McCulloch Co., Galt, Ont, have just supplied a 75 horse power Wheelock steam engine to the Clinton Electric Light Company, Clinton, Ont. A new dynamo to the same concern has just been supplied by the Reliance Electric Company, Waterford, Ont.

THE Merchants Dyeing and Finishing Company, Toronto, are opening out business in their new premises, where they propose to

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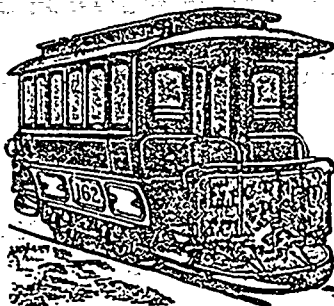
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EVERY DESCRIPTION

dye and finish textile fabrics. The works will be under the management of Mr. Alfred Burton, assisted by competent foremen in each department.

MESSRS. A. & S. E. DAVIDSON has bought the grist mill at Jarvis, Ont., and are having it altered and refitted. They are having four sets of rolls put in and new engine and boiler. The John Abel Machine Works are supplying the rolls. The mill will be running by middle of November.

The Central Bridge and Engineering Company, Peterborough, Ont., recently organized as noticed in these pages, have taken over the plant and business of Mr. W. H. Law in that place, known as the Central Bridge Works, and will operate the same. Mr. Law will be engineer and manager of the new concern.

The Toronto Carpet Manufacturing Company are offering a prize of \$25 for the best representative Canadian design, which they will weave and exhibit at the Columbian Fair at Chicago next year. The judges will be chosen by the Central Ontario School of Art and Design from among prominent carpet dealers in Toronto.

The Peterborough Milling Company have entered into possession of the large flour mill in Peterborough, Ont., recently purchased by them, and are expending about \$70,000 thereon. It is being enlarged, remodelled and re-equipped with the best and most modern machinery, and will have capacity to manufacture 500 barrels of flour per day.

MR. GEORGE RUMPEL, proprietor of the Berlin Felt Boot Company, Berlin, Ont., has just completed his new factory. The building is 160x40 feet, four stories high. The machinery includes 12 cards, also woolen, knitting, shoe and felting machines. Employment is given to 75 hands, and the output is some 600 pairs of felt boots per day.

The Keewatin Lumbering & Manufacturing Company are beginning work on Tunnel island, Man., preparatory to their scheme for the utilization of the vast water power of Winnipeg river. The company will expend \$350,000 on the island and adjacent mainland during the next two years, with the expectation of making Rat Portage the largest and most important manufacturing centre in the Dominion.

The Peerless Manufacturing Company, of Waynesboro, Penn., propose establishing a branch of their works in Canada, preferably in Toronto, for the manufacture of agricultural implements, etc., for the Canadian and foreign markets. Mr. J. E. Lytle, of the company, thinks that the new works will be ready for operations in time to meet demands for next season's business, and will give employment to 500 or more hands.

The Worsted and Braid Company, of Toronto, are being incorporated with a capital stock of \$100,000 to take over the plant, machinery, etc., of the Auston Manufacturing Company, late of Toronto Junction, and to carry on the business of manufacturing braids, corset and shoe lacings, carpet and other warps, and other business connected with spinning, weaving, etc. Mr. James P. Murray, president of the Toronto Carpet Manufacturing Company, is interested in this new enterprise.

The Watson Manufacturing Company, St. Catharines, Ont., is being incorporated with a capital stock of \$30,000, to manufacture woolen and cotton goods, etc. Mr. James Watson, of Hamilton, and Mr. E. P. Watson, his son, late of Strathroy, Ont., are largely interested. It will be remembered that the mills of the Strathroy Knitting Company, at Strathroy, were recently destroyed by fire. The energies of the Messrs. Watson will now be directed to building up the new works at St. Catharines.

The Toronto Radiator Manufacturing Company, Toronto, are sending out a very beautiful catalogue in which is illustrated some of the different styles of Safford radiators manufactured by them. These radiators are made in every shape and style known to the trade. They are constructed without bolts, packing or washers; are guaranteed to contain (listed measurements) full area of heating surface, and are tested and guaranteed to stand 120 pounds pressure; a very important feature of them being that they are all equipped with valves that will not leak.

The Canadian General Electric Company, Toronto, which controls the Edison, Thomson-Houston, Fort Wayne, Wood, Van Duzee and many other valuable systems of electric railways, electric light and electric power, is a distinctively Canadian enterprise, which is now giving employment to some 700 persons in its various branches. Contracts for electrical machinery and apparatus to the value of about \$600,000 are in hand, and orders to the value of

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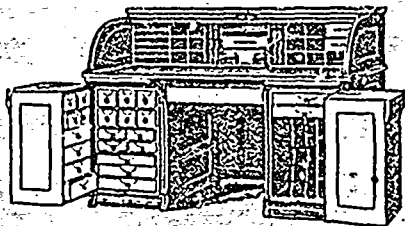
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about \$200,000 have been secured during the last month. Many well-known Canadians are at the head of the enterprise, and amongst whom may be mentioned W. R. Brock, H. P. Dwight, Hugh Ryan, W. D. Matthews, R. Jaffroy, J. K. Kerr, Q.C., Clarkson Jones, E. B. Osler, George A. Cox, Frederic Nicholls, A. Manning, W. Christie, Alex. Nairn, T. Sutherland Staynor, W. Harty, Thomas Long, William Elliot, J. I. Davidson, H. Lowndon, Major Greig, Sir Cassimir Gzowski, Hon. Edward Blake, T. R. Merritt, John Hoskin, Q.C., John Burns, G. P. Smith, M.P.P., Joseph Innes, M.P., M. Loggatt and B. E. Walker. The recent decision of the United States Court of Appeal awarding Mr. Edison the monopoly of the manufacture of the incandescent lamp, is of great value to the Canadian company, they owning these patents of the Dominion of Canada.

The Cant Bros Co., of Galt, have just brought out a new Band Saw saw which is, so far as we know, a novelty among Canadian wood-working machinists. It is of such size and capabilities as to be specially adapted to heavy work, such as carriage, waggon and coach makers, and agricultural implement manufacturers, as also in planing mills, etc. It will carry a saw 2 1/2 inches wide, and will saw to the centre of 8 inches. The frame is cast in one massive piece with a rectangular cored section, having a large base, thus securing a substantial floor support. Wheels have cast iron arms with wooden rim; and the face of the wheels is covered with rubber, firmly cemented to rim. The wheels are 42 inches in diameter, and have a 3-inch face. The upper wheel has a vertical adjustment to take different lengths of saws, and can also be angled to lead saw in any path while the machine is in motion. It is raised or lowered by means of a hand-wheel and screw. The lower wheel is kept free from accumulations of saw-dust by a brush. The table is of iron. The feed is effected by four 4-inch heavily geared rollers, all power driven. One side of the double feed rolls is stationary, while the other side is yielding to allow for inequalities in the lumber. The operator can cut a slab 1/4 to 1/2 inch thick off of a board up to 4 inches thick. The feed works are driven by belts at rear of machine. The works are also provided with a clutch controlled by a lever, by which the feed rollers can be stopped and started at any time, without stopping the machine. For sawing bevel siding, the table is simply tilted by a hand-wheel. The feed

works will expand to take in a plank 8 inches thick, and an width up to 24 inches.

One of the most prominent features of the Machinery Hall of the Montreal Exhibition was Robin & Sadler's exhibit in leather and rubber belting, loom strapping, and lace leather. This well-established house is a familiar name in all parts of Canada. Founded over thirty years ago, industry and integrity have built their business up to its present greatness. The *Herald* in its report makes the following reference to the firm: "The premises occupied by Robin & Sadler, or at least the business known under this old firm name, now solely conducted by Mr. Geo. W. Sadler, are located at 2518 and 2522 Notre Dame street, and comprise three flats suitably fitted with all requirements of the trade. The first floor is devoted to shipping and offices; the second to belting-making and press work; and the top to carrying, making an establishment which, from point of completeness, is unsurpassed in Canada. Employment is furnished for twenty-five hands, and two travellers are continually on the road, the trade being large and constantly growing. Everything is Canadian, even the leather is tanned in their own tannery, and every inch of belting is made by expert Canadian workmen, who can compete with the world, as is proven by the recent exhibit of leather belting at the Jamaica Exposition, where this firm received a certificate of honor. These facts, briefly stated, speak volumes for Mr. Sadler's enterprise and ability. In their exhibit special mention must be made of the splendid 40 and 53 inch belts, 100 feet of which are shown, to be completed for the Royal Electric Co. Another special feature is their fine belt dressing, produced by years of experience and study. The majority of belt oils in the market cause a belt to become sticky and spongy by penetrating and destroying the fibre of the leather, and is often full of resinous matter that gums upon the surface and is very injurious. This dressing is free from all these objections, while it is 20 per cent. cheaper than any other preparation, and is admirably adapted to all belts that are run at a high rate of speed, such as electric dynamo belts, etc. Personally Mr. Sadler is a favorite with all business men, being thoroughly conversant with every phase of the belt business. Mr. Sadler is a prominent director of the Exhibition company, and is esteemed by all who know him. —*Montreal Journal of Fabrics.*

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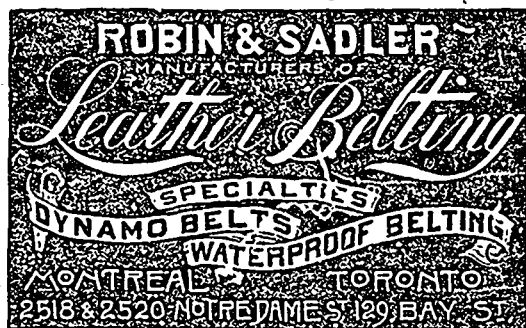
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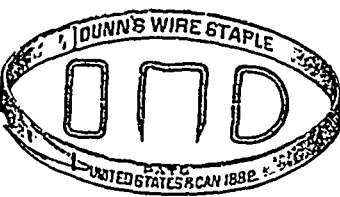
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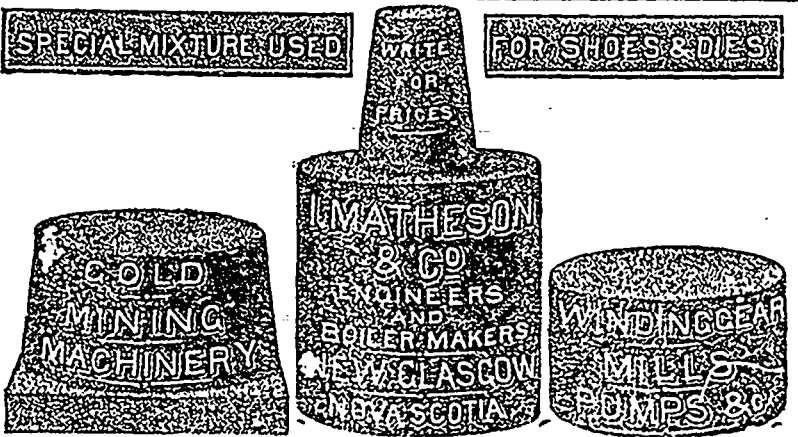
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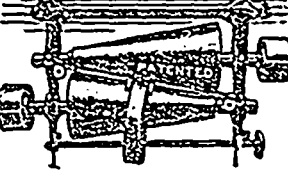
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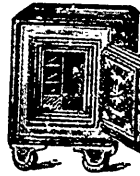
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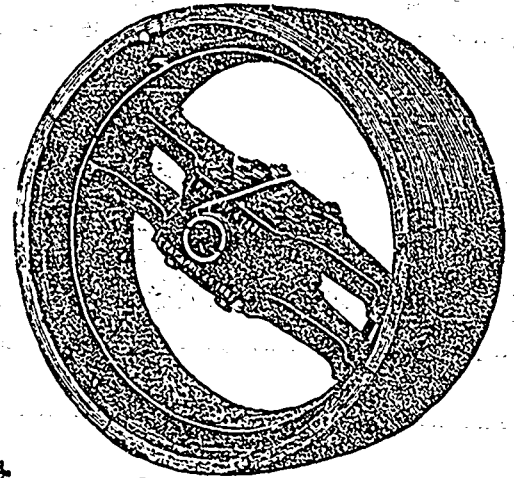
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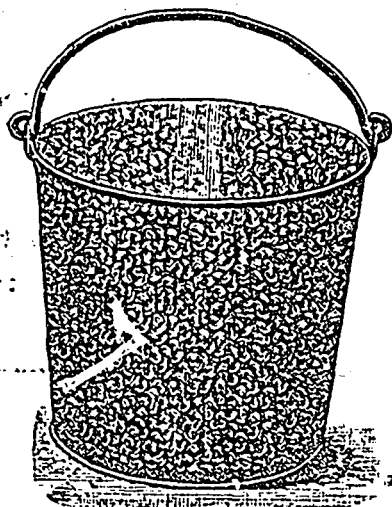
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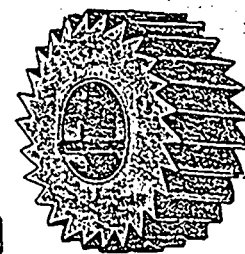
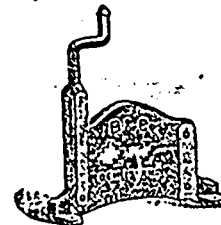
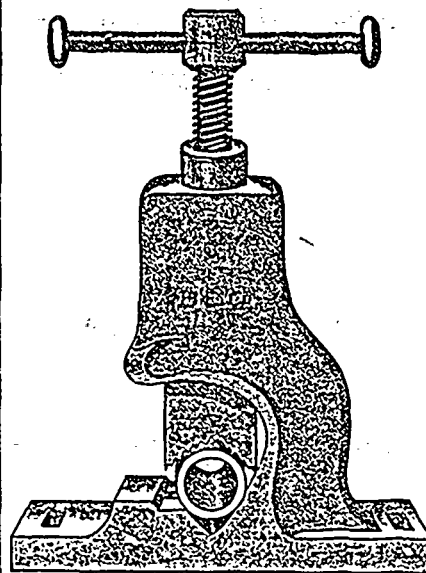
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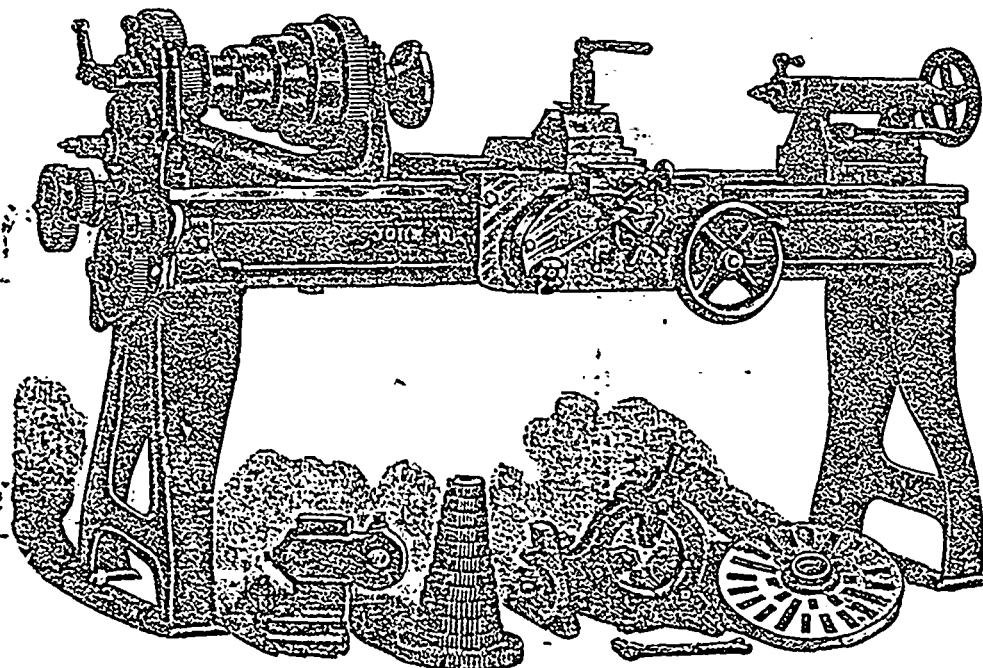
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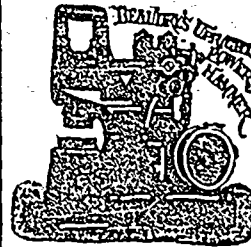
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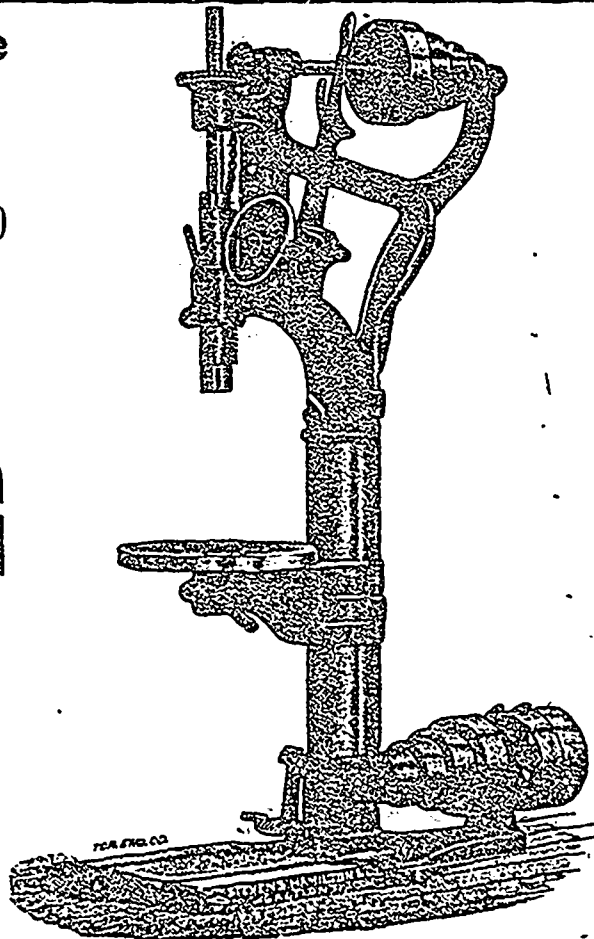
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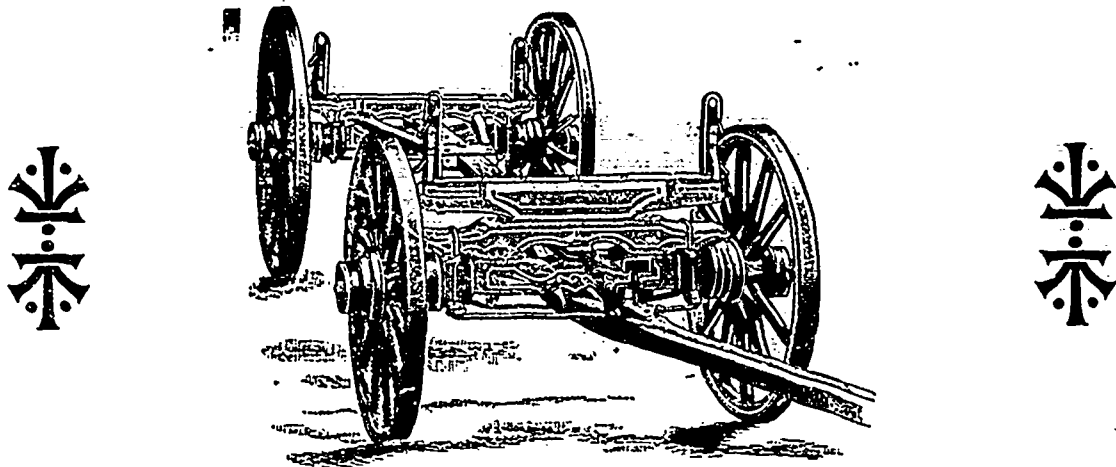
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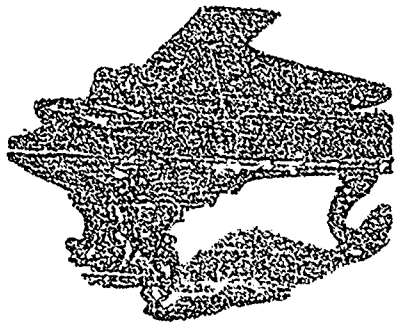
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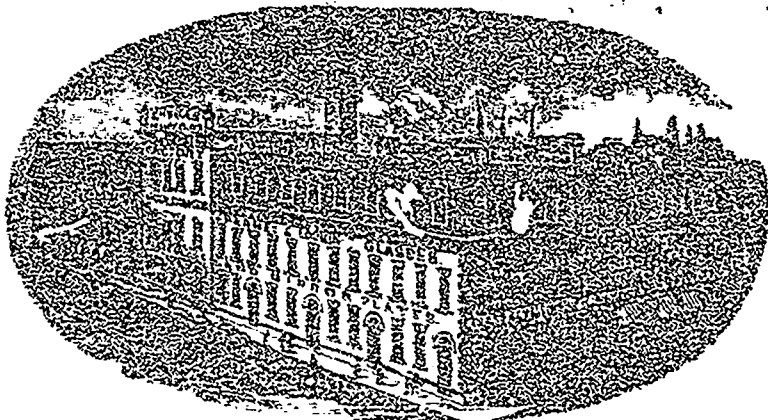
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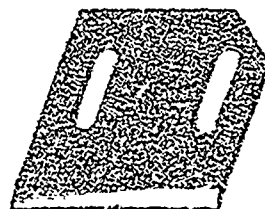
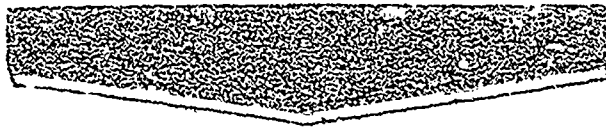
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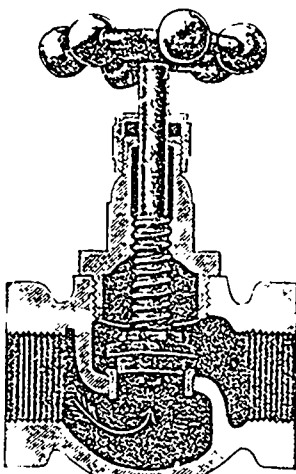
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