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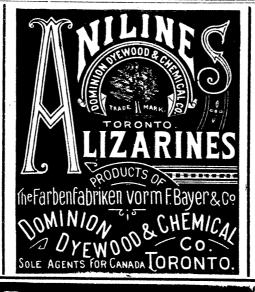
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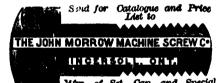
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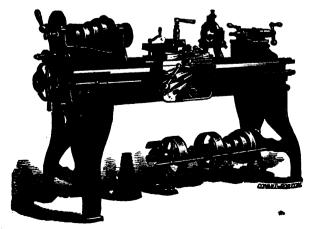
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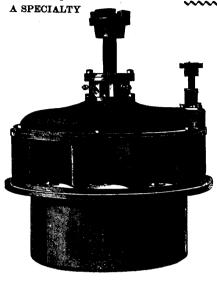
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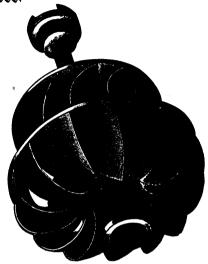
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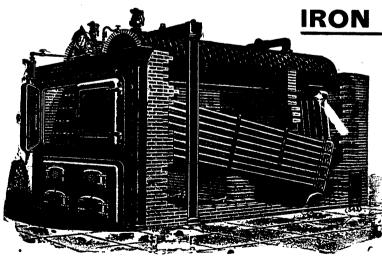
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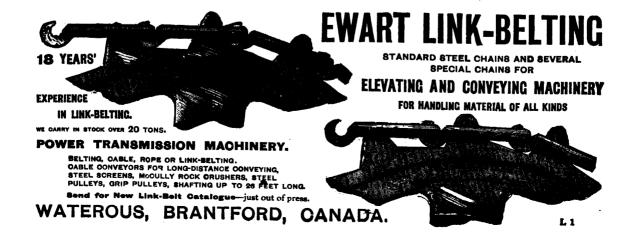
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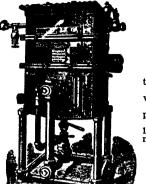
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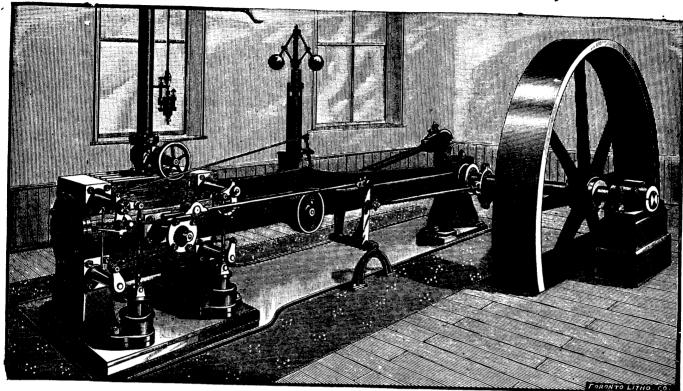
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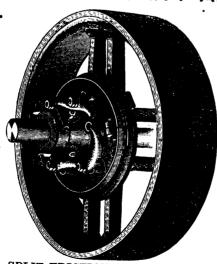
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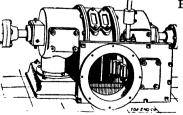
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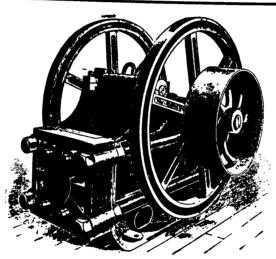
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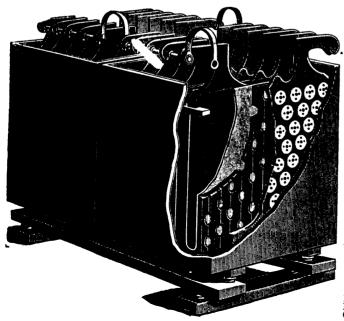
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PUBLISHED ON THE FIRST AND THIRD FRIDAYS OF EACH MONTH

J. J. CASSIDEY, - . - - - Editor

SUBSCRIPTION - - \$1.00 per year.

ADVERTISING RATES SENT ON APPLICATION.

The Canadian Manufacturer Publishing Company, Ltd.

Room 66 Canada Life Building, King St. W., Toronto.

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THE CONTROLLER OF CUSTOMS.

Hon. N. C. Wallace, who has been Controller of Customs ever since that office was instituted, has resigned that position and has been succeeded by Hon. John F. Wood, who was appointed to that office as its first occupant. This promotion vacating the office lately held by Mr. Wood, Col. E. G. Prior, M.P. for Victoria, B.C., has been selected to fill that important office. It is understood, we believe, that both the Controller of Customs and of Inland Revenue will become members of the Cabinet.

Canadian manufacturers regret that Mr. Wallace has thought best to retire from a position in which he worked so

indefatigably in their interests. No other man in the country they feel, could possibly be more painstaking and conscientious in the discharge of his duties, nor have a more comprehensive understanding of the necessities of the office. They most sincerely hope that his services to Canada, and advocacy of the interests of his constituents, which includes so large a number of manufacturers, will not be lost; but in whatever position he may find himself he may be assured that their best wishes follow him.

Our manufacturers too, and the country generally, have cause for congratulation that so competent a man as Mr. Wood succeeds to the Controllership of Customs. He is no stranger, for he is well-known as a firm and staunch supporter of that fiscal policy—the N.P.—that has done so much to make this Canada of ours the great and prosperous country it is. Mr. Wood may be assured that he possesses the warmest sympathies and most earnest support of all Canadian manufacturers.

Col. Prior, too, is well-known not only in Parliamentary circles but also in the Canadian business community, engaged as he is and has been for years in active mercantile life in Victoria. His position as Controller of Inland Revenue is a most important one; and the manufacturers and business men of Canada may feel assured that whatever of their interests may come under his supervision, they will be well and carefully conserved.

GOVERNMENT PAYMENT FOR EXTRA SERVICES.

An Order in Council has been passed, to the following effect, viz:

That in view of the fact that the present regulations, respecting the rate of extra remuneration payable to Customs officers for attendance and for services rendered before or after regular Customs hours and on Sundays or holidays at railway stations or trains, at ferries, wharves or on board steamers and other vessels, or at sufferance or other warehouses, are not sufficiently explicit to meet the necessities at the present times and conditions of business, and are found to bear unequally upon transportation companies at different points; and with a view to the adoption of a more equitable basis for such remuneration, that the Order in Council of 17th July, 1858, be cancelled and the following regulations be adopted in lieu thereof, viz:—

The hours of attendance, except on Customs holidays, at which all Customs officers shall be held liable to service as above whenever so required, are from 8 o'clock a. m. to 6 o'clock p.m., or later whenever from press of work their services may be needed, and any official duties performed within those hours cannot be classed as extra, and no charge shall be made for the attendance or the performance of any official duty required or rendered within the hours specified nor for attendance or service other than above.

The expression "Customs holidays" is held to include:—Sundays, New Year's Day, Good Friday, Christmas Day, Dominion Day, Labour Day, the birthday, or the day fixed by proclamation for the celebration of the birthday of the reigning Sovereign, and any day appointed by proclamation of the Governor General in Council for a general fast or thanksgiving.

Railway and Express Companies, Steamship Lines or other vessel owners, warehousemen or others requiring the services

of Custom officers shall be charged the following schedule of fees whenever the services in connection therewith are rendered after 6 o'clock p. m., before 8 o'clock a. m., or on Customs holidays, viz :-

Railway and Express Companies, twenty-five cents per hour. The actual time of each officer employed to be kept and stated in a monthly account, to be certified and rendered by the Collector to the Company for whom the service is rendered.

\$2.50 for attendance on a Customs holiday, provided such attendance does not exceed ten hours; if employed over ten hours, twenty-five cents per hour.

In lieu of a charge per hour, a stated sum per month may be agreed upon between the Collector and the Company, subject in every case to the approval of Controller of Customs.

Steamers and other Vessels, twenty-five cents per hour The actual time of each officer employed to be kept and stated in an account, to be certified and rendered by the Collector to the Master or Agent of the Steamer or other vessel at such time as may be necessary to ensure payment thereof, monthly where practicable.

\$2.50 for attendance on a Customs holiday, provided such attendance does not exceed ten hours; if employed over ten hours, twenty-five cents per hour. \$2.50 for receiving report inwards or issuing clearance to a vessel. When vessel reports and clears within twelve hours, one fee only shall be charged.

The officer who attends to receive the report of or grant clearance to a vessel, shall attend to all other necessary service in respect of the vessel's papers, without additional fee; and the other officer who receives a fee for attendance to receive a vessels report, grant her a clearance and vise or sign other necessary papers shall not be entitled to receive a per hour allowance in addition thereto, nor if such service is ren dered on a Customs holiday to receive a per diem allowance.

All others requiring extra service, Twenty-five cents per hour for actual time employed. Accounts to be made and rendered by the Collector as above. All moneys paid for extra services on any account, shall be paid to the Collector, who shall receipt for same, deposit them in the Bank to the credit of his special or contingent account, and pay them over by his official cheque to the officers who have earned them; making special returns thereof to the Customs Department, monthly, on the forms provided.

Further that the provisions of Section 19, Chapter 22 of Consolidated Orders in Council, be extended so as to apply to steamship and other transportation companies. Said Section 19 reads as follows:

"Loading, transferring or landing bonded goods before or after regular Customs hours, or on Sundays or legal holidays shall only be permitted upon application to the Collector or proper officer of Customs; and Railway Companies shall pay such sum or sums for the extra service of officers, either weekly or monthly, appointed to attend to such duty, to the Collector of the Port, as may be considered fair and reasonable; but no such money shall be paid by any railway company to any officer of Customs, except through the Collector of the Port, who will, in every case, give his receipt for the same."

CUSTOMS DECISIONS.

The Comptroller of Customs has approved of the following decisions of the Board of Customs:-

Inaglypta wall decorations, 1½ cents a roll, 25 per cent.

Oakum felt, 17½ per cent.

Car-jacks, 30 per cent.

Peptogenic milk powder, 25 per cent.

Peta naphthal, 20 per cent.

Single spun silk, colored 20 per cent. Dental furnaces, generators and gasometers, 27½ per cent.

Busan burners, $27\frac{1}{2}$ per cent.

Blow pipes, 35 per cent.

Vulcanizers of copper, 30 per cent.

Vulcanizers of iron, 27½ per cent.

Metal boxes, plated, when lined, 5 cents each and 30 per cent.; and, when not lined, 30 per cent.

Jute cloth, woven, inpart, with colored jute yarn, 20 per cent. Solderine, free.

Baskets and skips containing cotton yarn, duitable at same rate as if empty.

Log or coach screws, 30 per cent.

Hasps and staples, and screw hooks and eyes, 32½ per cent.

Leather leggings, lined with cotton, 25 per cent.

Cotton canvas, gun covers or cases, 321 per cent.

Leather gun cases, 25 cent.

Chandelier, or lamp hooks, of iron or steel, 271 per cent.

Chandelier, or lamp hooks, of brass, 30 per cent.

Turmeric, ground, free.

Quilt frame and carpenters' clamps, 35 per cent.

Paper boxes, plain, printed or ornamented, or labelled (not including boxes covered by item No. 352), duty 35 cent.

Collodion, for photographers, 20 per cent.

Soapstone packing, $22\frac{1}{2}$ per cent.

Electric bells, 25 per cent. Potato planters, 20 per cent.

Carbonate of potash, 20 per cent.

THE STATESMANSHIP OF A LAWYER.

At a meeting of the Toronto Young Conservatives held on December 2nd, Dr. Wilson, the vice-president of Association, tendered his resignation as such, which was accepted by a large majority. In his letter of resignation Dr. Wilson referred to that portion of the inaugural address of the president, Lawyer C. C. Robinson, which declared that no resolution criticising the policy of the Dominion Government would be entertained in any discussion before the Association. He said:-

I am unwilling to retain membership in any club that by its acceptance and endorsation of such a declaration publishes to the country the slander that the Government is either unwilling or afraid to submit its acts or opinions to the friendly criticism of its own supporters. I conceive it to be the duty of all the friends of the present or any Ministry, by the fullest public expression of their views, to, if possible, prevent that Ministry adopting a questionable course, rather than to remain silent until the injury to itself, the country, or to both, is completed, and then condemn, when their condemnation must for the party mean defeat, and for the interests of the country only mockery.

Proceeding, he reminds the club that the proposed action was opposed to the example of the greatest leaders of the Conservative party in the past, who believed in strength not secrecy, and right not stealth.

Friends of Dr. Wilson moved that the resignation be not accepted, and this motion seeemed to have many supporters. A warm debate followed when Lawyer Robinson, the president, vacated the chair and declared that if the resolution not to accept Dr. Wilson's resignation carried, he would himself resign. Under this threat the resignation was accepted, and Dr. Wilson was forced to step down and out.

It would be interesting to learn if the Toronto Young Conservatives maintain their organization, and invite men with brains in their heads to join it, and place an autocratic lawyer to rule over them, in the interest of the Conservative party? We have been told by a supposed-to-be prominent and influential member of that party, who places M.P.P. at the end of his name, that only lawyers can be statesmen, and here we have another lawyer who makes an exhibition of his statesmanship by introducing into his association a gag rule that prevents any member from expressing any but a favorable opinion regarding anything that the Government may say or do, and that forces self-respecting men out of his following. If this be statesmanship from the standpoint of the legal profession we want none of it.

DEPARTMENTAL STORES AND THE PUBLIC.

Departmental stores and their methods of doing business are injuriously affecting some lines of manufacturing, if we may judge by some current events. These stores sell patent medicines at prices greatly below those fixed by the manufacturers, and below what the retail druggists can afford to sell them at. The manufacturers claim the right to fix the retail prices, and to test this right a large patent medicine manufacturing concern have applied to the courts for an injunction to restrain the proprietor of a Toronto departmental store from selling their goods at cut rates, which are below cost. A specification of the complaint is that the advertised price of certain pills being twenty-five cents per box, the departmental store is selling them at nine cents.

The store proprietor declares that he will not be dictated to by the pill maker as to what price he shall ask for his goods. He says that it is the business of the manufacturers to sell at whatever prices they please to the wholesale druggists, and it is his business to sell to customers at whatever prices he pleases. If manufacturers are allowed to dictate prices, he might as well close up shop, because there are many lines of goods selling to-day at less money than it cost to produce them. He says that he is constantly buying stocks of merchandise for much less than it cost to manufacture, which, being interpreted, means that manufacturers, jobbers and wholesale merchants sell goods to retailers who never pay for them, or at best pay but a small portion of the price—in other words, bankrupt stocks.

There must be something radically wrong in business methods when so many immense departmental stores as now exist can find it profitable to sell goods at as ridiculously low prices as are usually charged in them. We recognize the fact that a manufacturer may safely give special prices to a concern of undoubted financial ability when the transaction meant the sale of more goods to the one purchaser than would probably be made to a dozen or a score of small fry retailers, but he could not place those prices below the cost of production. But what is the difference if a dozen or a score of small fry retailers go into bankruptcy, their stocks being sold for only a small percentage of their cost, falling into the hands of the departmental storekeeper? Surely the manufacturer is eventually the loser.

An important feature of this departmental store business is that while much space is occupied in the daily papers claiming that goods are being sold at ruinous sacrifice, and while it may be a sacrifice to sell pills at nine cents per box that usually retail at twenty-five cents, yet it has been frequently demonstrated that other than departmental stores sell goods as cheap as they do. The public is a gullible element, and, as Barnum once said, like to be gulled; and this shows that judicious investments in printer's ink pay.

The problem of departmental stores has not yet been solved. There are two elements interested in the matter—the proprietors of them and the public. Leaving the proprietors to look after their own interests, the public-we might say the entire public-are most deeply concerned. Of course the desire of all purchasers is to obtain as much for their money as possible, and those who patronize the departmental stores drift thitherward believing that they can obtain the maximum of merchandise there on bargain days and over the special cut-price counters. Sometimes they may obtain an article for five cents that is worth, perhaps, ten, but oftener they pay twenty-five cents for an article really not worth twenty. It is claimed, too, that these stores give employment to large numbers of people who would otherwise have no means of support. This argument is, we think, unstable, for we know that heretofore many small stores existed, all of them giving employment to clerks and attendants, that have been driven to the wall and closed their precarious existence. Whether the employes in the small stores received adequate pay or not, it is certain that the remuneration paid in the departmental stores is so entirely inadequate that it is a wonder how the recipients can live and lead honest and honorable lives. If want and necessity for personal comfort lead store girls astray, does the dear public take any of the blame to itself? Not usually; but why do not humane people decline to make purchases in stores where girls are required to serve long hours for three or four dollars per week? If the public demanded that employes should be properly remunerated for their services the departmental stores would not be able to make such "ruinous sacrifices" in selling goods, as they claim to do.

Live and let live is a good motto that is not to be found upon the walls of a departmental store, and a sentiment that finds no place in the heart of the proprietor. Silks and laces in one place and butcher's meat in another. Drugs and medicines at one counter, and crackers and cheese on another. Candy here and tin pans there. Wall paper in one place and school books in another. A restaurant on one floor and a furniture store on another. In fact if there is any line in storekeeping whatever that is not incorporated in a departmental store it is because the proprietor has accidently overlooked it. Live and let live, indeed! As far as he has the power, every storekeeper within the county, in whatever business he may be engaged, must be crushed out of existence to the end that the big departmental store may thrive. And the gullible public encourages it.

THE OPERATION OF PROTECTION.

The Canadian Manufacturers' Association is seeking information regarding the operations of protection by sending a series of questions to leading manufacturers. The answers returned by a prominent tanner and currier, who has been in business since 1865, show an amusing absence of faith in the restrictive policy. The dialogue runs:—

Name the different general lines of any manufacturing industry in which you have become engaged or interested since the year 1878? Answer—None.

As far as your knowledge goes, was the manufacture of any of these lines carried on in Canada previous to 1878, and which? Answer—Yes, all.

As far as your knowledge goes give the names of articles

now manufactured in Canada, the production of which was not carried on here previous to 1878. Answer--Principally boodlers.

Is your industry favorably or unfavorably affected by the tariff, and how? Answer—The tariff on leather does not affect my business.

How, in your opinion, would the substitution of either free trade or a tariff for revenue only for the present policy of protection to the manufacturing industries of Canada affect your business? Answer—Such change would be to my advantage.

The foregoing was published in the Toronto Globe a few days ago, and it is to be regretted that either the Globe or the person who supplied the information suppressed some interesting features of it.

The informant, in stating that he had not become engaged or interested in any manufacturing industry since 1878 is more or less ambiguous in saying that as far as his knowledge goes the manufacture of all these lines was carried on in Canada previous to that date. All of which lines?

We say that the Globe or the person who supplied the information had suppressed an interesting feature of it. Our reason for saying so is that question nine of the catechism, and the answer thereto, is not included in the Globe's report. Question nine is—"In your opinion what lines of manufactures could be produced to advantage in Canada which are not made here now?" The answer given by the Globe's informant is "Honest Men." Why did the Globe suppress this question and answer? But that answer was made, the inference being that the "prominent tanner and currier" who gave such smart answers believed that no honest men are now produced in Canada, and have not been since 1878. Of course this Smart Aleck is at liberty to make the application to himself, but other tanners, and the public generally will not agree with him.

It is also noticeable that while the Globe's informant declares that the tariff on leather does not affect his business, he also announces that either free trade or a tariff for revenue only would be to his advantage. What does he mean?

The extent of the business carried on by this so-called "prominent tanner and currier," and the style of the man, is exemplified in his reply to a request for his business card: "Cannot afford a business card under the National Policy." Our opinion is that a manufacturer who cannot afford a business card ought to retire from business.

LIABILITY OF TRADES UNIONS.

A judicial decision involving the liability of trades unions in endeavoring to prevent non-union men from working was rendered in the Court of Review in Montreal a few days ago. The judgment of the court in Perrault vs. Gauthier, et al, is particularly important, as it renders trades unions liable for damages for preventing union men from working where non-union men are employed. The defendants, Gauthier, et al, are members of the Stonecutters' Union, and the plaintiff is a stonecutter, not a member of the union—one whom the latter terms a "scab"—who was forced out of a job by the refusal of the union men, under a by-law of their society, to work in company with him. The court, Judge Mathieu, dissenting, confirmed the decision of the lower court, and allowed plaintiff \$137.50 damages, being fifty days at \$2.75 per day.

Mr. Justice Jette gave a very elaborate judgment, in which

he reviewed both English and French jurisprudence. plaintiff complained that the defendants formed a society which was a permanent conspiracy against his interests, and the object of which was to prevent his exercising freely his In November, 1895, he engaged with Perrault & Riopel, contractors, but as soon as he began work defendants threw down their tools and quit. He had, therefore, to give up the job, and found it impossible to get work since. defendants pleaded that their society is a legal one, and that they had acted within their rights. Principles, said the learned judge, are elementary, but their application is sometimes difficult. No one is warranted, even in the exercise of his right, in doing injury to another. Laurent lays down this axiom clearly when he says that one can use his right only in so far as he does not injure anyone else, and that the moment he interferes with the rights of his neighbor he commits an offence. Modern legislation recognizes that labor requires protection, and has legalized associations of working men formed to resist the exactions of capital and secure a fair day's wage for a fair day's work. In our penal legislation we exempt such combinations of working men from the penalties inflicted on trade combines. But the unanimous opinion of English jurisconsults is that everyone is bound, in the exercise of his own rights, to respect the rights of others. What was innocent when done by one individual might become offensive and dangerous when practised by a combination of persons. Here is a society which goes the length of preventing anyone who will not submit to its conditions from getting work at all, not only in Canada but in the United States as well, because once he is denounced as a "scab" he is debarred from work even in a foreign country. It is the undoubted right of the plaintiff to work at lower rates than his neighbors, but this the society practically prevents his doing, even though he may not be able to secure work at the union rates, owing to lack of requisite physical strength or energy. He is prevented, in fact, from earning bread for his family. Trades unions which thus conspire to prevent a man from working go outside their rights. By refusing to work for or with such a one they simply ruin him, and commit an act of tyranny which no court can sanction. The plaintiff has proved that he could have worked for two months for Perrault & Riopel, but that in consequence of all the other workmen boycotting him by leaving the job, he was compelled to leave also, as he could not do all the work alone, and the contractors were bound to have the work done. He is consequently entitled to damages, fifty days at \$2.75, or \$137.50, for which defendants are jointly and severally responsible.

Mr. Justice Tellier concurred in above opinion.

Mr. Justice Mathieu, who dissented, thought the plaintiff had no cause for action. The Stonecutters' Union had a bylaw forbidding its members to work with outsiders. The plaintiff went to work for Perrault & Riopel, some of the defendants then left, and the plaintiff, seeing this, went also. Actions arise from rights, and can only be taken when rights are violated. The only law which could give the plaintiff a right of action was article 1053, and the plaintiff would have to prove, under this article, that the defendants had committed an offence or a quasi offence. An offence was an illicit, injurious act, committed with intent. A quasi offence was a similar act, but without intent. To maintain his suit, the plaintiff should have shown that the defendants had done

something illicit. The learned judge could not find that when several persons agree not to work with somebody else, they do anything illegal or forbidden by any law in our statutes. If one individual has the right to refuse to work with another, why should not several individuals have the right to agree in a similar resolve? The defendants violated no obligation towards the plaintiff in quitting work when he began. Their course might lay them open to a suit by the contractors, but not by the plaintiff. They did not molest the plaintiff in any way, but simply took up their tools and walked, and whatever recourse this might give the contractors against them, there was no lien de troit between them and the plaintiff.

WOOD PULP.

The completion and going into operation of the new wood pulp mill at Sault Ste Marie, Ont., said to be the largest works of the kind in the world, directs attention to the possibilities of Canada in that direction, and to the great variety of uses to which wood pulp may be put beside the manufacture of paper.

The manufacture of wood pulp into vases, tiles, cornices, friezes, dadoes, interior decorations, hollow ware and numerous other household articles of an ornamental and useful nature, says the Philadelphia Times, is a new industry that has been the direct outcome of the discovery of making paper out of The value of our forests and the importance of preserving them has been preached to an unappreciative audience for twenty years, but at the very moment when the wooded areas of the country are on the point of complete extinction, a series of inventions and discoveries disclose to us the folly of wasting our natural resources. The lumber baron has no greater interests at stake than the conversion of the timber into money, and he denudes the forests with tremendous waste, with no idea of replanting; but the modern industry of paper making must look ahead in order to guard the capital invested in the business.

The decided tendency in certain quarters to adopt the Elizabethan architecture, with its ornate and richly-carved decorations, has created a demand for some cheap raw material that can be readily decorated and handsomely finished. The interiors of our homes are becoming more elaborately carved and decorated, despite the craze for a pure colonial style, and the question of making attractively-carved mantels, tiles, friezes, wainscotings, cornices, centre pieces and dadoes has puzzled builders considerably. Wood carving of an elaborate character may do for the expensive houses, but in small, tasteful cottages it would hardly answer the purpose. Something cheaper and yet nearly as effective has been sought in vain, until wood pulp, chemically hardened, entered the field and supplied the long-felt desideratum.

The leading qualities of the wood pulp show the superior value of this material for interior decoration. When chemically prepared the articles are waterproof and unaffected by acids or oils. There is no grain to the wood, and a small ornamental mould can be nailed to the wall or ceiling without danger of splitting. When trimmed and finished off the pulp offers the best surface possible for painting and decorating. By new chemical processes the pulp can be given a perfect china finish, with a fine glazed surface and a ceramic or Japanese enamel finish. It is also very susceptible to stains, and

perfect imitations of oak, walnut, maple or cherry are easily and cheaply obtained. In all characteristics the new ware rivals earthenware, pottery and china, without their liability to breakage. A handsome vase or toilet article made of the prepared wood pulp can be dropped from the mantel with impunity by the careless servant girl, and it will neither chip, crack nor break. Ordinary usage has no effect upon the fine surface finish and ornaments, and they will endure service much longer than most other materials without losing their attractive appearance.

In interior decorations the ceiling and walls are made of plain or ornamented sheets of the wood pulp and screwed to the studding and rafters without the use of lath or plaster. The whole interior is thus made of beautiful panels, with a fine finish that can be decorated to suit the taste. The sheets can be made plain or embossed, and thick enough to take the place of plaster and paper. The glazed finish to the plain sheets is far preferable to painted walls. The wainscoting is made in the same way and the decorations and conventional patterns har. monize with the ceiling and walls. Such a wall is far more enduring than one of lath and plaster. There is no danger of breaking, and the wood fibre will not warp, twist, crack nor peel in changeable temperatures. The screws and nails can be driven in so close to the edge without splitting the wood that they are not noticeable.

The cornices, friezes, tiles and mantels are taken into the plain room and placed into position rapidly, giving a finish and decoration to the interior that is not obtained by any other method. Handsome imitations of wood-carved tiles and centre pieces deceive all but the expert, and the panelled walls and ceilings, with their colored or ceramic finish, are unequalled by the products of any other known process. The artist has a surface perfectly adapted for displaying his skill, and nothing short of expensively-carved wood could give such results.

The decoration of furniture is equally facilitated by this new process of wood-fibre moulding. The patterns are designed and hollow moulds made after them. The wood fibre, while in a soft, gelatinous condition, is forced in the moulds, and the moisture then slowly driven out by compressed air, while the meshes of a fine netting hold the pulp in place. The articles can be turned out in single pieces, and they are completed without further manipulation, except to trim and finish off the surface. Delicate scrolls, flowers and all conventional patterns commonly carved out of wood for furniture and cabinets are thus produced rapidly. With a little glue these ornamental pieces are fixed securely into position, and no one but an expert would know them from fine wood carved figures. A great deal of our modern furniture is thus elaborately decorated.

Vases and jardinieres are made of wood fibre with a glazed surface, imitating in color and finish the expensive china, pottery and earthenware. Almost any finish can be given to the smooth surface, and hand painting can be as effectively performed on such vases as on the Dresden or Limoges ware. Brush backs and toilet articles of an infinite variety are produced by the same art, and also handsome album covers, caskets, table tops, trays and waiters. The limits to the new art are indefinite and hard to explain. With still further improvements along the present line, wood-pulp ware may make a complete revolution in our homes. It has already promised and fulfilled

great things in interior decoration, but its application to the exterior parts of our houses may change modern architecture to such a degree that present styles will become antiquated.

Instead of building houses with siding boards and shingles, large sheets or panels of wood pulp ware may be employed, giving a smoother and more enduring finish to the whole building. The outside ornamental work has already been improved upon by the wood pulp mouldings and cornices. With the chemically-hardened fibre and glazed surface, the outside sheets would be impervious to water without the addition of paint, and they would be far more enduring. The saving in waste would also be an item. The heart of a tree alone yields fine siding boards and the loss from trimming is considerable. Nearly all parts of the spruce tree are used to make pulp Excepting the bark and knotty branches, the loss is exceedingly small.

SULPHITE PAPER.

At present the claim is being put forward that Fibre Chamois is the ideal underlining for everything. It formerly lent stiffness and style to a cast-iron cut of garment; it now gives grace and pliability to less rigid outlines. Bicycle riders should line their coats with it because it is light, cool, and waterproof; and ladies their cloaks, because it is warm and comfortable. If the truth must be told, it is best adapted for one purpose, viz., to line the purses of its proprietors. In reality the boom is almost over, and as the material is being driven from the dressmakers' shelves it is trying to find a place for itself on the tailors' cutting-board. It may be taken for granted, however, that the resting place it will really find is a dusty corner in a patent office drawer, along with many another forgotten fad.

This rush of vegetable fibres and pulp to the front as a substitute for the recognized textiles is not a new thing. The history of the trade is marked by many fabric failures, and in pointing out the fact that a number of widely-advertised materials are likely to add another chapter to the tale, we wish only to show the advantages of a staid and sober statement of business matters, and the desirability of being to a certain extent conservative in the reception of novelties.—Journal of Fabrics.

As our contemporary correctly observes, fibre chamois is identical practically with sulphite paper, which is a product of quite a number of Canadian mills. It is well known that sulphite paper possesses many remarkable qualities, making it akin to textile fabrics. As an interlining for clothing it will last as long as the cloth of the garment, it is remarkably light, impervious to air, and is not easily destroyed even when wet with water. It is no new idea for the housewife to reinforce her scanty bed covering by layers of newspapers between the blankets, and sulphite paper of proper and convenient size is now made for that purpose, filling the requirements most admirably. It is popular, too, with dressmakers as an interlining not only for the skirts of ladies' dresses but for the waicts also, and the best tailors use it in the construction of overcoats for gentlemen. "Fibre Chamois" is only a name or trade mark which no one but the proprietor is allowed to use in connection with sulphite paper, but neither the proprietor of that trade mark nor anyone else can restrict the public in using sulphite paper for any of the purposes above indicated.

It is ridiculous, then, for our contemporary to ridicule the use of the article, for it is not at all probable that for a long, long time to come sulphite paper will be only a dusty reminis-

cence in a patent office drawer. In fact such articles are not usually kept in the drawers of the patent office.

The anxiety seems to be, however, that sulphite paper, by whatever other name it may be called, will in some way supplant for certain purposes some textile fabrics. This may be; and textile manufacturers recognize the fact that if they hope to compete against the article they must produce goods possessing all the qualities of sulphite paper, and at about equal cost. The Japanese make garments of sulphite paper, finding them of great utility—why should not Canadians do the same thing? In our opinion the time is not far distant when the manufacture of sulphite paper, for conversion into clothing, will be a large and flourishing Canadian industry.

EDITORIAL NOTES.

Canada first.

Canada is greater than any man in Canada.

He should not have supposed that the tail could wag the dog.

The resignation went up like a rocket and came down like a stick.

Mr. Wallace is a fine going political nag, but he jumped before he was spurred.

Carpenters in Japan earn on an average about thirty four cents per day, measured in American money.—Cleveland Leader.

Dear Mr. Wallace: Many a lofty monarch of the forest has been laid low by tornadoes that were impotent to destroy the waving grass that bowed its humble head before the gale.

He who fights and runs away, may live to fight another day; but the prospects for winning a victory in the future when the running away occurred on the eve of an important battle are lessened very much.

The French Chamber of Deputies have decided that except under unusual circumstances no more tinned meats are to be suppled to the French Army after January 1897 except such as are put up in France or the French colonies. The Deputies evidently believe in protection to their home industries.

A largely attended meeting of Sir Mackenzie Bowell's Orange friends was held in Peterborough, Ont., a few days ago at which strong resolutions were passed endorsing the Premier's political actions. One resolution says "Long may he live to rule the destinies of Canada," to which the devout answer of all Canadians is, Amen. So mote it be.

At a meeting of Canadian tanners held last week, over which Mr. L. J. Breithaupt, of Berlin, Ont., presided, a resolution was passed "That the Government be memoralized to grant uniform and compulsory hide inspection on all Canadian hides and skins in every city and district where there is an inspector." The desire of the tanners is that the Inspection Act be smeended so as to require that the ears and tails of skins be removed before inspection.

Orangemen may come and Orangemen may go, but if the manufacturers stand firmly together and present a determined and resolute front in fighting the battles of protection, the National policy will long remain the policy of the Canadian Government.

It gives us pleasure to announce that the new rolling mill of the Norway Iron and Steel Company, at Guelph, Ont., is nearing completion, and that their product, a really first-class iron, will soon be offered on the market. Hammered blooms are already being made.

Mr. Aubrey White, Assistant Commissioner of Crown Lands, Toronto, has received the first piece of wood pulp ever run through the big mill recently erected at Sault Ste. Marie, Ont. The wood from which it was produced was fed into the machine by Mr. Clergue, manager of the works.

Canada sells more lumber to the United States than to Great Britain. Thus the Canadian exports of forest products in 1894 to the United States aggregated in value \$13,903,586, to Great Britain \$12,332,726, and to other countries \$1,937,491. Grand total of Canadian exports of forest products in 1894, \$28,173,813.

With Utah in the Union, as it soon will be, there will be forty-five States with ninety senators. The House of Representatives now has 356 members, and the one to come in from Utah will make it 357, so that there will be 447 members in the electoral college to choose the President in 1896, and 224 will be required for a majority.

Attention is directed to a letter from Mr. J. Castell Hopkins which appears in another page. This letter grows out of a recent discussion in this journal of the question whether to be a statesman it is necessary to be a lawyer. Mr. Hopkins writes this letter somewhat in the way of an explanation of what he had already said in his Life of Sir John Thompson.

Englishmen are waking up to the possibilities of the paper in dustry in British North America. A syndicate of English capitalists, has recently purchased a pulp and paper plant in British Columbia, with the idea of developing it to proportions far beyond its present limits, and with an eye to the Australian trade. Lots of British gold will be invested in paper and pulp making in Canada and neighboring territory within the next five years.—The Paper Mill.

The result of the election in Utah last month will add a new State to the American Union after the issue of a proclamation by the President, and will increase the Senate probably some time next winter to a body of ninety members. The House is now composed of 356 members, and one will be added from Utah after its admission, making the total 357. With ninety Senators added there will be a total of 447 for the next electoral college, of which 224 will be a majority.

A Canadian maker of farm implements if selling to a Canadian farmer is heavily taxed on everything he uses. But the farmer is told that home competition among makers brings down the price to its natural level.—The Globe.

Don't worry about the maker of farm implements. He is

ROBIN, SADLER & HAWORTH

Manufacturers of

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all right. If he tells the farmer that home competition brings down the price to its natural level he tells the truth every time. Farm implements are quite as cheap in Canada as in the United States, and that is all the farmer cares to know. The manufacturers are not kicking.

Mr. Shreiber, Chief Engineer of Railways and Canals, has received full returns of the traffic through the Canadian Soo canal from the opening of navigation on Sept. 9th to Dec. 6th, inclusive, the last day on which this canal was open. The total number of vessels which passed through was 1189, of which 604 were Canadian, and 585 United States. The tonnage of the Canadian vessels was 126,534, and of United States vessels 623,092. Of the freight carried through the canal the total tonnage was 595,837, of which 361,268 tons were coal, copper, silver and iron ores, and 180,171 tons grain, flour, malt, salt, clay bricks, etc.

The great shipbuilding strike in Scotland and Ireland has been settled by the masters on the Clyde agreeing to grant their men a shilling a week advance immediately, and another shilling advance in February. In Belfast the men will get a shilling advance in February. The settlement was undoubtedly brought about by the fact that both the Clyde and other ship-building firms were in danger of losing important contracts to build foreign warships, orders for which have already been transferred to German concerns. It is estimated that more than 100,000 persons were affected by the strike.

The father in Æsop's fables taught his sons the value of

union by showing them that his utmost strength failed to break the bundle of faggots, but when separated they were easily snapped one after the other. If the opponents of high taxation and extravagant administration are split into two camps their experiences will be a new illustration of the truth of the old fable.—The Globe.

The fable also teaches that if manufacturers value the National Policy as they profess to do, the utmost efforts of the opposition will fail to break it if they stand faithfully together. But they must not allow themselves to become divided by any of the new issues that are being so forcibly pressed upon them.

In view of the political situation, the desire of some to displace the present government regardless of who their successors may be, the talk of some looking to the creation of a new party, etc., it should be remembered that Ontario presents an object lesson of great significance. Ontario may always be depended upon to return a handsome majority of National Policy members to the House of Commons, while in Provincial politics Mr. Mowat's supporters are equally numerous. In local politics Mr. Mowat is generally acceptable to the manufacturers, but in Dominion politics the Government, or any Government, could not hope to be supported without the help of the manufacturers.

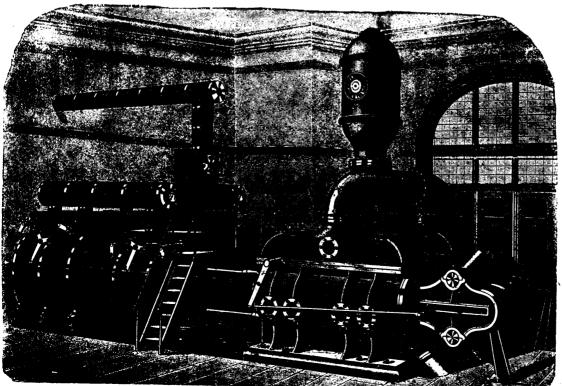
A press telegram from Paris, France, a few days ago stated as follows:—

The Foreign Budget announces that the exports increased 195,000,000 francs during the first three months of 1895 owing to the operation of the Wilson tariff bill in the United States and the resumption of commercial relations with Switzerland.

JOHN MºDOUGALL

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Water Works Supplies It is a question whether in passing the Wilson tariff bill the Congress of the United States was working in the interest of the working people of that country or, ignoring them, in the interest of the working people of France. Does the Wilson tariff make the working people of the United States rich? Will the Globe inform us?

The recent treasury decision against the free importation of manufactured lumber is giving quite an impetus to the planing-mill business on this side of the boundary line. The Canadian saw mills will have plenty of customers for their spruce and hardwood boards, and the lumber will be dressed in American mills in Vermont and New Hampshire. We learn that a prominent Providence, R.I., lumber dealer who has mills at West Burke, Vt., proposes to build a large and well-equipped dressing mill at Newport, Vt. He will import his rough stock, sawed, from mills in Canada. The dressing facilities for 1896 will be much in excess of those in 1895.—North-Eastern Lumberman.

At Sault Ste. Marie, Ontario, there is a big pulp factory. The Ontario government has given the pulp makers a large territory from which to cut the material from which the pulp is made. The same pulp makers now propose to establish a huge pulp factory at Sault Ste. Marie, Michigan—just across the river. What we want to know is whether the American mill is to be supplied with material from the limit given by Sir Oliver Mowat to the mill on the Canadian side.—Hamilton Spectator.

Don't worry about the American mill and what Mr. Mowat has done in encouraging an American company to build a

million dollar pulp mill in Canada. The Sault Ste. Marie mill is claimed to be the largest and best equipped mill in the world.

At the recent annual conference of the British National Conservative Association held at Brighton, Eng., the Duke of Norfolk, postmaster-general, was elected president for the ensuing year. Mr. James Rankin, M.P., for Leominster Division of Herefordshire, in moving a resolution for the benefit of agriculture, to which he demanded immediate attention on the part of the Government, suggested the imposition of a duty on wheat, barley, oats and hops, so as to relieve land from the burdens of local taxation, and re-adjustment of railway rates so as to benefit farm produce. He also advocated the advancement of Government loans to persons purchasing farms. The other speakers who followed Mr Rankin supported his resolution.

In a number of Canadian towns efforts are being made to establish boot and shoe factories, and citizens are being canvassed for stock subscriptions to this end. It has always been a matter of regret to conservative men that industries are so frequently promoted with hurrahs and the glitter of extravagant promises. By means of bonuses, tax exemptions and stock secured upon grounds of sentiment, industries are often placed in most undesirable situations. After the bonus has been spent, the natural consequences of founding an industry and choosing a site by artificial means, and no adequate data, are felt, and the industry dies of congenital disease. Since January 1, 1895, half a dozen, if not a dozen, Canadian shoemaking firms have closed their factories, and the circumstances surrounding their retirement from business are not

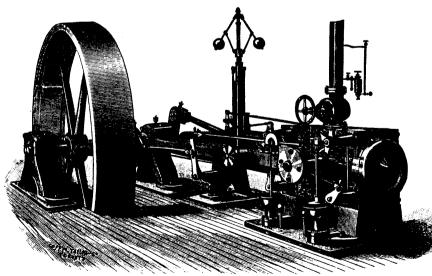
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calculated to inspire one with a notion of the fertility of the deserted field.—Monetary Times.

The people, however, get the benefit of cheap shoes.

The Hamilton iron works will be in operation in a few weeks and we look upon that event as the beginning of the iron industry in Canada. The whole country is interested in the experiment. There is no reason why it should not turn out as well here as in the United States, and the people of Canada will do well to remember that the Toronto Globe and its leader, Laurier, have both promised to put a stop to the experiment by removing the protective duty on iron, and thus to condemn Canada to import all the iron she uses, thus handicapping every Canadian industry by reason of freight on iron from the place of production. Canadians can build ships in their lake ports, as well as the Americans, and will build them if the Laurier party is kept out of power.—Hamilton Spectator.

A marked feature of the export of Canadian lumber to the United States is the great increase in the number of pine logs shipped into this country. Between the years 1882-85 the export of pine logs was 4,335,000 feet or an average of 1,083,-750 feet per year. Between 1886-89 the export was 20,526,feet, or an average of 5,131,500 feet per year. Between 1890-93 the export was 269,868,000 feet, or an average of 67,467,000 feet per year. In the fiscal year 1893, according to the Government returns, these logs amounted to 127,000,000 feet, and in 1894 to 277,947,000 feet. Most of these logs are rafted to saw mills in Michigan, where the local supply of pine logs was exhausted years ago. By this operation Canada loses

the employment of part of her population engaged in the saw-mill industries.—North Eastern Lumberman.

Oh, that the Government could be brought to see the injustice being done Canada by not imposing an export duty on saw logs. Hundreds of million feet of Canadian logs go annually to the United States to be sawn into lumber, and thousands of Canadians follow the logs to that country to find employment in American saw mills. Impose the export duty.

In reply to the toast of "The Association" at the late banquet of the Young Conservatives of Galt, Ont., the president said :- " At the Liberal demonstration here last month, which was the largest in numbers (it is alleged) and the feeblest in result, Mr. Paterson, of Brant, endeavored to demonstrate that Canada was practically 'dead.' Now, when those whom we love or admire are taken from us we usually put up monuments that they may be ever remembered; so, Mr. Paterson -doubtless being a patriotic citizen-deemed it proper to build a 'monument' to commemorate the departed glory of his defunct country; which he did, in the shape of a magnificent wholesale warehouse, that must have cost in the neighborhood of \$40,000. On this red brick cenotaph he might have had inscribed in letters of solid gold:-- 'Erected as a substantial answer to the Globe's perpetual question: Has the National Policy made you rich?' "

The National Association of Manufacturers of the United States which was organized in Cincinnati in January last, will hold its first annual convention in Chicago on January 21, 1896. The Convention will be under the direction of Presi-

The Babcock & Wilcox Water Tube Boiler

Application.

Application.

Application.

Application.

Application.

ales During 1892 were 162,300 Horse Powe Sales for Month of June 1895,
Exceeded 25,000 Horse Power.

WM. T. BONNER,

Over-1,500,000 Horse Power

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dent Thomas Dolan, of Philadelphia, and it will include delegates, all representative met, and some of them eminent, from all the manufacturing States. One of the duties of the body will be the perfecting of the organization, with a purpose to place the National Association in such a position as to enable it to speak with positive authority for the manufacturing interests of the nation. Congress will be in session at the time of the meeting of the Convention, and it may be that the Convention will send to Washington some utterance upon questions affecting the industrial and commercial interests of the country. This a remarkably healthy young bantling whose action and declarations will be heard and listened to at Washington. The Canadian Manufacturers' Association was founded some twenty years ago and is doing similar work.

The Ottawa Citizen in the course of a recent editorial says:—

"It is announced that the Massey-Harris Company are establishing works at Niagara, N. Y. A short time ago the story was told that they were going to Detroit. For two years past there have been from time to time rumors of this kind sent afloat, each of them serving as a text from which Liberal journals have preached the oppressive nature of the National Policy. Mr. Massey was able last year, out of his profits, to give \$100,000 to the City of Toronto in the form of a public music hall. Still it is argued that the business is rendered unprofitable by the burdensome taxes heaped upon it under our tariff, and a more favorable situation must be sought abroad. The tariff has nothing to do with the case. It does not affect the question one iota. The probability is that the company is actuated by a desire to obtain a share of the American market, to make use of the water power devel-

oped at the falls, and to operate some of their patents. At all events, this Massey-Harris argument has been overworked."

Why don't our respected contemporary catch on the fact that all this Massey-Harris scare is an unmitigated fake in which there is no grain of truth.

The value of a trade mark was again exemplified in an action recently decided in a Toronto court in which J. S. Hamilton & Co., Brantford, Ont., the well-known manufacturers of Canadian wines, asked for an injunction restraining Michie & Co., the well-known wine and liquor dealers, of Toronto, from using the Hamilton registered trade-mark, "St. Augustine," which has been applied to native Canadian wines manufactured by plaintiffs. These wines are specially used for church purposes, and the plaintiffs' trade-mark was registered in 1890. By consent of the counsel, the motion for injunction was turned into a motion for judgment, and judgment granted, declaring that defendants had infringed the plaintiffs' trade-mark, and for a perpetual injunction restraining further infringments. The defendants were adjudged to pay the plaintiffs' costs of action down to, and including, judgment. The defendants to make an affidavit as to the quantity of the wine in question sold by them, and to serve a copy upon plaintiffs' solicitors, together with a tender in writing of such damages as they are willing to pay. If plaintiffs decline to take amount tendered, reference to Master in Ordinary to ascertain damages.

The medical testimony given at the Findlay trial showed that the boy Green was scrofulous, and that there were from

1895.

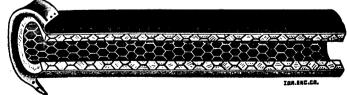
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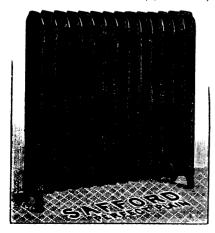
HEATING APPARATUS

Safford : Radiators

RECEIVED THE HIGHEST AWARDS:

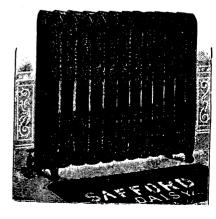
ANTWERP (BELGIUM) EXPOSITION 1894. SHERBROOKE (QUEBEC) EXHIBITION 1893.

TORONTO (ONTARIO) EXHIBITION 1894 OTTAWA (ONTARIO) EXHIBITION 1892



All Iron.

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Under the British Flag.



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200 to 300 ulcerations on his body. Half blind, deficient in intellect and diseased, it is evident that the right place for him was in the ward of a hospital, not an Ontario farm. He ought never to have been sent away to work; moreover, he ought never to have been brought from the old country at all. There are, or ought to be, institutions for such cases in England, and to send him abroad was no kindness either to him or to the community to which he was shipped. The result of this misdirected philanthropy in this case is the death of the boy and the arrest of his employer. There appears to be a vague notion that the unfortunate waifs and strays of English society can be made sound in mind and body by sending them away "somewhere," but such sufferers as Green can no more be cured in that way than a scarlet fever patient. . . . It is high time the deportation of waifs to Canada be stopped. Until we make a reasonable effort toward solving our own "unemployed" problems we should not be burdened with the results of similar problems arising in Britain.—Toronto Globe.

THE CANADIAN MANUFACTURER of November 15th said, and it again calls attention to the fact that the Dominion Government, to enable the Massey-Harris Company to save \$2.87 upon each machine they export, are sacrificing some of our most valuable industries and antagonizing an element that has always been its firm and staunch supporter. The effect of the order in Council is to force the Canadian manufacturers of iron and iron products, paints, varnishes and all other materials entering into the construction of agricultural implements, to reduce the price of their goods to the American level, and to sacrifice every vestige of benefit supposed to accrue to them by the imposition of duty upon such things when imported. If the Massey-Harris Company imported all these materials the Government would give them a drawback of 99 per cent. of the duty paid them. If our home manufacturers supply these materials it must be at no higher prices than the imported materials, but they obtain no drawback because their products are not exported by them, and so it is that these various industries are being ruined. If the Massey-Harris Company and other manufacturers must be encouraged in engaging in the export business it should not be at the expense of other industries. It would be far better for the Government to pay a bounty of \$2.87 each upon all exported harvesters than to kill off a dozen other industries by the pernicious effects of the unfortunate order in Council.

CORRESPONDENCE.

To the Editor of "THE CANADIAN MANUFACTURER."

SIR,-I have to thank you for drawing my attention to an article in your columns dealing with some extrac s from my "Life of Sir John Thompson." As this particular n atter has been the subject of considerable discussion, I might perhaps refer to it very briefly. In connection with a summary of the causes which led to Sir John Thompson's failure to hold Nova Scotia, after acting for a period as Prime Minister of that province, I stated that he was, at that time, too emphatically and exclusively a lawyer to prove a successful and popular party leader. Afterwards prolonged service upon the Bench, and, it may be, a wider acquaintance with men and measures, modified this limitation to success. It enabled him, when holding high political positions in the Dominion, to develop into a statesman as well as a lawyer. But in the ordinary Canadian and American sense, Sir John Thompson was never a popular politician. He was deeply respected by the people of this country,

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he was loved by a few; but personally and in the sense in which that feeling has been embodied in the characters of Sir John A. Macdonald, James G. Blaine, Lord Palmerston or William Ewart Gladstone, he was never popular. He was essentially a lawyer first in his earlier days, and a man of lesser mind and intellectual power would never have risen out of the cramped legal environ-ment of that period into the broad field of statesmanship, as op-posed to the playground of the politician. This was what I desired to indicate, and in trying to enforce my view I stated that great English party leaders have never been lawyers, and that a lawyer who is devoted to his profession in these strenuous days, and who desires to become, or perhaps is, a great lawyer, cannot be at the same time a great political leader. He has to abandon law and practice, rid himself of a vast amount of technical mental lumber, practice, rid himself of a vast amount of technical mental lumber, and clear his mind of that peculiarly legal attainment of being able to closely follow rigid precedents and grasp immeasurable and apparently petty details. This it is almost impossible in mature age to do. Hence, perhaps, the fact that no lawyer, to my knowledge, has ever been Prime Minister of England, or controlled the vast sweep of its foreign affairs. One or two have been Home Secretaries with lamentable results, and Brougham, Eldon and Cairns have played at politics with, at least in the first case, distinct loss of reputation. It is not necessary to discuss American tinct loss of reputation. It is not necessary to discuss American lawyers. The United States has had a few great lawyers, but they have not been statesmen. As a rule its famous lawyers are celebrated for their politics or unlimited rhetoric, rather than for their

My argument was and is that a lawyer may become a successful politician by giving up law. But to reach the higher altitude of statesman, he must not only give up his profession, but will have to fight great obstacles thrown in his way by the very nature of his past legal study and practice. If the change of aim and work comes in comparative youth, as in the cases of Sir John Macdonald and Sir Oliver Mowat, these difficulties will be minimized; if in later years, they will be found almost insuperable.

J. CASTELL HOPKINS.

Toronto, Dec. 16, 1895.

The Richmond Creamery Co., Toronto, have been incorporated with a capital stock of \$50,000, to manufacture butter, etc.

LITERARY NOTES

This is the jubilee year of the Montreal Witness, the first specimen number having been issued in December, 1845, and the publishers, Messrs. John Dougall & Son, are naturally looking for congratulations. The Witness has not been a time server, nor has it sought either popularity with the many or favor with the powerful at the expense of silence on any of the great principles with which it started out fifty years ago, and to which it has steadily adhered. It has from the first till now renounced all sources of income which might seem to clash with any of those principles. In spite of this it has grown steadily and greatly. It has grown from a very small weekly, published in a single little room off a general printing office, into a semi-weekly, a tri-weekly, a daily, occupying to-day a building covering 10,000 feet of land in the most central spot in the city. In its appliances and get-up it has been always in the year of extraprising the grand in the seminary seminary and seminary in the year of extraprising the grand is a seminary to the year of extraprising the grand is a seminary to the year of extraprising the grand is a seminary to the year of extraprising the grand is a seminary to the year of extraprising the grand is a seminary to the year. always in the van of enterprising and refined journalism.

Through the amalgamation of the Methodist Magazine and Canadian Methodist Review under a combined title, the best features of both periodicals will be united. The new series will be one fourth larger than the Methodist Magazine, and will retain all the popular features which made that periodical such a household the popular features which made that periodical such a household favorite, and will add new and important departments without any increase of price. The announcement for 1896 is a very attractive one. The splendidly illustrated articles on "Britain's Keys of Empire," "Around the World with the Union Jack," and "The Greater Britain of the Southern Seas," with several papers on our own great Dominion, will give it a patriotic character that should appeal to the patronage of every Canadian. The articles on "Every-Day Life in Bible Lands" will throw much light on many passages of Holy Scripture. A feature of great attractiveness will Every-Day Lite in Bible Lands will throw much light on many passages of Holy Scripture. A feature of great attractiveness will be its admirable serial stories. One of these will be "The Hand on the Helm," a tale of Irish life, of smugglers and Methodists, of true love and its trials, of Irish brogue, Irish humor, Irish pathos and Irish piety, illustrated with a score of engravings. William Briggs, Toronto, publisher. Price, \$2 a year.

In issuing the second edition of the Canadian Manufacturers List the publishers feel that a great improvement has been made upon the first, which is to be attributed as much to the technical assistance of the manufacturers themselves as to the publisher's own increased experience, and the encouragement found in the

THE EDISON AND SWAN UNITED ELECTRIC LIGHT CO.

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

Electrical Supplies of Every Description

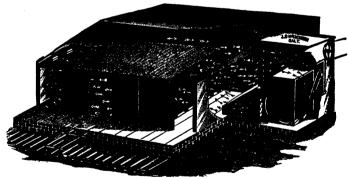
JOHN FORMAN, 650 CRAIG STREET

hearty recognition which the first issue immediately secured. It should be understood that this edition is not the former one brought up to date, but practically a new book. Its information has been newly obtained, its definition is more minute, and its arrangement so compact that a glance from index to body should put an enquirer in instant possession, not only of the article he seeks, but of many others suggested by it. In order that those who consult the list should not be confused by a mass of detail, the headings have been made more descriptive than inclusive, and, therefore, do not always specify the articles referred to them from the index, but the names under a heading are those of manufacturers of the article, whether it be in the heading or not. It was the intention of the publishers to issue this work every two years, but the condition of the manufacturing industries in this country is so healthy that the few changes likely to occur within the next three years will not warrant another issue before January 1, 1899.

No periodical in Canada ever collected between one set of covers as many contributions from as many of Canada's leading writers as has the Canadian Magazine in its Christmas number. J. H. Long of Hamilton writes of "The First Canadian Christmas" in a well-illustrated article, while Charles Gordon Rogers contributes well-illustrated article, while Charles Gordon Rogers connot butes a clever Christmas poem, which is also illustrated. The astory of the Castle St. Louis, Quebec," is told by J. M. Lander; that of the U. E. Loyalists is rendered charming by the facile pen of Charles G. D. Roberts; Dr. J. G. Bourinot treats of "A Gentleman-Adventurer of the Old Regime," in a delightful paper. W. W. Campbell's poem entitled "Ode to Silence" is a perfect piece of work. Of a different class are the contributions by Jean Blewett, "Kit," J. Castell Hopkins, Dr. Ferguson, Dr. G. Archie Stockwell and others. These writers contribute fiction or talk of some leading topic of the day. Dr. Ferguson's article on the Christian Scientists is specially opportune. An article which will interest every patriot is the one on "Canada's National Song, its Author and Origin," by the editor, John A. Cooper. The story, "Adele Berthier," illustrated by F. H. Brigden, is also worthy of special notice. While the Canadian Magazine has thus distinguished special notice. While the Canadian Magazine has thus distinguished itself with a high-class Christmas number, it announces better things to follow. The January number will contain the first half of a story by C. C. Farr, with illustrations by A. H. Hemming, one of the leading artists on Harpers'.

'McEachren's System of Drying, Heating and Ventilating

Under Recent Patents.



CHEAP AND EFFECTIVE. HIGHLY APPROVED OF BY PRACTICAL MEN.

The following is a specimen of letters received from customers:

J. D. McEachren, Esq., Galt, Ont.

OTTAWA. April 1, 1895.

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

McRAE BROS. & CO. McRAE BROS. & CO.

· For particulars address-

McEACHREN HEATING AND VENTILATING CO. ONTARIO

CAPTAINS OF INDUSTRY.

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

The Niagara Falls Metal Works Co., Niagara Falls, Ont., are applying for incorporation with a capital stock of \$95,000, to manufacture chains, traps, saddlery, hardware, etc.

The Heeson Rocking Grate Bar Co., Toronto, have, within the last three weeks, placed their patent rocking grate bars in the "Whig" office, Kingston, Ont.; Mimico Asylum, Mimico, Ont.; Gas, Electric and Power Co., St. Thomas, Ont.; Canada Chemical Gas. Electric and Power Co., St. Thomas, Ont.; Canada Chemical Co., London, Ont.; Brantford Stoneware Manufacturing Co., Brantford, Ont.; The R. Forbes Co., Hespeler, Ont.; Tolton Bros., Guelph, Ont.; A. R. Woodyatt & Co., Guelph, Ont.; Guelph Waterworks, Guelph, Ont.; Pure Gold Manufacturing Co., Toronto; Christie & Crabtree, Napanee Mills, Ont.; and R. McDougall & Co., Galt,

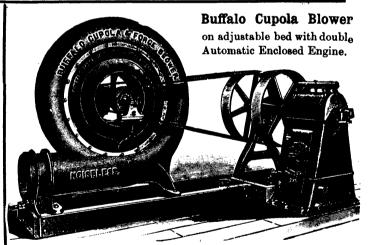
The Ridgetown Diamond Roller Mills, Ridgetown, Ont., will place new machinery in their works.

The Ontario General Construction Co., Toronto, are applying for incorporation with a capital stock of \$50,000, for the purpose of contracting for and constructing public and private works.

The Modern Art Company of Toronto are applying for incopora-tion with a capital stock of \$5,000, to manufacture picture frames,

The Perth Canning Co., Perth, Ont., have been incorporated with a capital stock of \$20,000, to preserve and can fruit, vege-

The Henderson Bicycle Company of Goderich, Ont., have been incorporated with a capital stock of \$100,000, to manufacture cycles, bicycles, sulkies, etc.



Buffalo Dry-Kilns, Shaving Fans, Forges, Blowers, Exhausters, Blacksmith Drills, Etc.

Are described in Sectional Catalogues FREE on application.

Their Efficiency, Smooth Running, and Durability are Unsurpassed.

Buffalo Forge Co., Buffalo, N.Y., U.S.A.

Toronto, Ont., by H. W. Petrie. Brantford, Ont., by Canadian Machinery and Supply Co. Montreal, Que., by Canada Machinery Agency Chicago Store, 22 and 24 West Bandelph Street



.....Extracts, Fruit Juices.....
Colors, Essential Oils, Acids,
and Bottlers' Supplies.

"Blue Seal"

Is the Trade Mark that Bottlers are fast finding out stands for the Most Delicately Flavored, Always Uniform, and Most Economical

Vanilla Extract

Made. Of guaranteed excellence, it is sold at a reasonable price and gives absolute satisfaction to every user. Try it once.

SEND FOR SAMPLE

BOTTLERS' PRICE-LIST.

McKey & Co., 36 Hamilton Street, Boston, Mass.



Bushnell & Co.'s oil works, Montreal, were greatly damaged by fire Dec. 5th.

The company of American capitalists that are about to build the electric railway in Quebec propose to buy out the stock of the Montmorency Electric Light and Power Company, and have offered \$600,000 for it.

W. Chapman, Toronto, is in Frederiction, N.B., making plans for a system of waterworks for that city.

The Rat Portage Fish Co., Rat Portage, Ont., have been incorporated with a capital stock of \$40,000, to manufacture caviar, and for storing and freezing fish, etc.

The Northern Electric and Manufacturing Co., Montreal, have been incorporated with a capital stock of \$50,000, to manufacture brass, copper, etc.

Thamesville, Ont., will place a new dynamo of greater power than the one now in use. The wires for the street lighting are being strung.

The Truro Foundry & Machine Co., Truro, N.S., are erecting an additional 50x30 ft. building to their works.

The British Columbia Pottery Co., Victoria, B.C., are applying for incorporation with a capital stock of \$150,000, to acquire the business now carried on by the British Columbia Pottery Co., and to manufacture sewer pipe, drain tile, terra cotta, etc.

The Lincoln Street Railway Traction and Light Co., St. Catharines, Ont., have been incorporated with a capital stock of \$90,000, to operate an electric street railway in that city and vicinity, and to operate works for the production of electricity for light, heat and power.

A syndicate have purchased timber lands at McKillop, Ont., and intend erecting a saw mill.

The Co-operative Cannery Company will build a cannery near the mouth of the Fraser River, B.C.

Work has been commenced upon the foundation of the Cobban M'f'g. Co.'s new factory in Toronto.

The Rossland, B.C., Electric Light & Power Co.'s plant has been purchased by the Norman syndicate, which will now have a monopoly of all the electric light and water supply business in Rossland.

E. F. Hutchings, wholesale harness, etc., Winnipeg, Man., will build a warehouse and manufacturing establishment 155 x 50 feet, six storeys high.

The Brockville Electric Street Railway Co., Brockville, Ont., have been incorporated with a capital stock of \$200,000, to construct and operate lines of street railway by electricity in that city and vicinity.

The J. Stevens & Son, Toronto, have been incorporated with a capital stock of \$50,000 to manufacture surgical instruments, etc.

The Taylor Co., Montreal, are applying for incorporation with a capital stock of \$30,000 to acquire the business now carried on by J. & H. Taylor at that place and to manufacture machinery, railway supplies, etc.

The Blaisdell Paper Pencil Company of Canada, Montreal, are applying for incorporation with a capital stock of \$50,000 to manufacture Blaisdell paper pencils, etc.

The Northumberland Stone Co., Shediac, N.B., are applying for incorporation with a capital stock of \$10,000 to carry on a general stone quarrying business.

The Alexandria Water works have been tested and found to be very satisfactory. The pump is one of the Northey Co.'s (Toronto) best.

The mixing building of the dynamite factory near Hull, Que. owned by the Ottawa Powder Company, was destroyed by an explosion Dec. 7th. Loss about \$1,000.

Begin and Lemieux's tannery, Sherbrooke, Que., was destroyed by fire Dec. 8th.

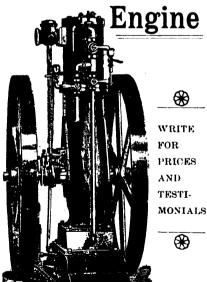
The Rathbun Co. contemplate the establishment of a distillery at Deseronto, Ont.. for the manufacture of methylated spirits.

The butter and cheese factory at Cocaigne, N.B., owned by Michael McLachlin, of Buctouche, N.B., was destroyed by fire Dec. 1st. Loss about \$3,000.

The Prismatic Glass Co., Toronto, have been incorporated with a capital stock of \$5,000, to manufacture prismatic glass, etc.

There is room in the Kootenay country for a large foundry, boiler and machine shop. Will some Canadian manufacturer take this pointer, and get in while the field is open.—Ledger.

THE ELECTRICAL GAS OR GASOLINE...



J. R. BAIRD

WOODSTOCK,

ONTARI

Firstbrook Bros.

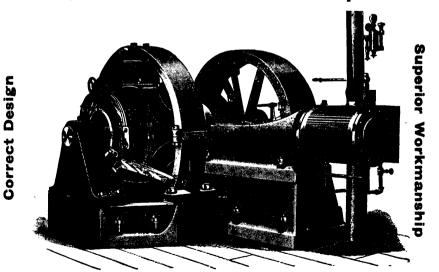
Dovetail and Packing Boxes

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

TORONTO, Write for Prices.

ROBB-ARMSTRONC ENGINES.

Simple, Tandem and Cross Compound.



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

Robb Engineering Company (Ltd.)
AMHERST, N.S.

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

The Toronto Electric Light Co., of which Mr. J. J. Wright is manager, have just purchased a 60 K. W. new style two phase alternating dynamo for their plant, and have ordered a 180 K. W. machine of the same character from the Royal Electric Co., Montreal.

T. H. MacNelly, who recently purchased the woollen mills at New Hamburg, Out., will make considerable alterations and add more machinery. He will commence these alterations after the beginning of the year.

Mr. G. F. Evans, representing the American Car Brake Company of Pittsburg, Penn., was in Toronto last week looking up a suitable location for a branch works that the company propose establishing in Canada. A most eligible location in King Street, near Dufferin, has been offered him which it is likely his company will accept. The company, it is said, have a contract with the Canadian Pacific Railway Company to equip all their freight cars employed in international trade with the Westinghouse air brakes, to be manufactured in Canada. The proposed works will give employment to several hundred hands. Score another for the N.P.

Leamington, Ont., will have works for the manufacture of sugar from beets. A meeting of citizens was held at that place a few days ago, and a committee appointed to form a provisional board of directors, as it is to be a joint stock company. tees will be secured from farmers to supply one hundred thousand tees will be secured from farmers to supply one hundred thousand tons of beets next season. The average growth in South Essex is twenty-five tons per acre, and this will require 4,000 acres. The capacity of the factory will be 1,000 tons of beets per day, and four hundred persons will be employed. A charter has been applied for. The committee in charge consists of W. W. Hilborn, J. E. Johnson, W. McSween, Mayor Chamberlain, and six others.

The agreement between the city of London, Ont., and the Grand Trunk Railway for the erection of the company's shops in East London has been ratified by the Council of that city. The Grand Trunk, in exchange for a bonus of \$100,000, is to build their shops within twelve months, and bind themselves to employ not less than 300 men for a term of forty years. These will be the only repair shops west of Toronto.

The Booth Copper Co., Toronto, are applying for incorporation with a capital stock of \$25,000, to manufacture kitchen boilers, metal goods, etc.

Messrs. R. S. White, J. Bartley, and J. Watson, of Montreal, representing the Watson Heater Company of that city, were in Cornwall, Ont., a few days ago, in conference with members of the town council regarding the proposal to locate the works of the company in Cornwall. Messrs. White and Watson explained that in pany in Cornwall. Messrs. White and Watson explained that in addition to their regular line of heaters the company would make all kinds of plumbers' furnishings. They expected to start with sixty and increase their staff to two hundred men. They were shown several available sites, and expressed themselves as satisfied with them. They were very favorably impressed with the town, and considered it a good location for their models. and considered it a good location for their works.

The Standard Oil and Gas Company who have been drilling two miles east of Kingsville, Ont., have struck a gas gusher estimated at seven million pressure, and said to be the strongest well in the

The Hub, Spoke and Bent Goods Manufacturing Co., Sarnia, Ont., are applying for incorporation with a capital stock of \$50,-000, to manufacture hubs, spokes, etc.

James Lydiatt, of Toronto, is interested in a company who will build a glass factory at Learnington, Ont. The plant will employ fifty to one hundred hands, and will cost about \$25,000.

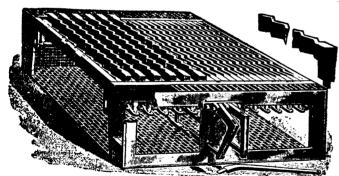
The Brantford Operating and Agency Co., Brantford, Ont., have been incorporated with a capital stock of \$50,000, to advance money to any company or person carrying on a manufacturing or other business and operate it, with especial reference to electric light or power enterprise. The reference to the electric light and power enterprise means that it might involve the starting of another company in that city.

The Norway Iron and Steel Company, Guelph, Ont., have their new rolling mill plant so far completed as to begin the manufacture of hammered scrap blooms. They use charcoal fuel for heating, and produce a really excellent, first-class, homogeneous metal. The balance of the machinery is being placed and will soon be in operation, when the company will be prepared to enter the market with their iron.

The Hamilton Fruit Exchange Co., Hamilton, Ont., have been incorporated with a capital stock of \$30,000, to carry on the business of canning and evaporating fruits, vegetables and farm produce, and to manufacture baskets, crates, etc.

THE VOLGANIG PATENT SHAKING I

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



TORONTO, June 17th, 1895.

THE GURNEY FOUNDRY Co., LTD., Toronto.

THE GURNEY FOUNDRY CO., LTD., Toronto.

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

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

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

F. W. Barrett,

F. W. BARRETT, Late of the Polson Iron Works Co.

THE GURNEY FOUNDRY CO., Ltd., TORONTO.

DOMINION BRIDGE CO.

MONTREAL AND LACHINE LOCKS, P.Q.

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

A Large Stock of

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

IN LENGTHS TO THIRTY-FIVE FEET

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

Post Office Address, - - MONTREAL

J. H. McGREGOR, Agent, Canada Life Building

The Pictou Charcoal Iron Co., Pictou, N.S., will add a plant for the manufacture of blooms, billets, etc.

Perron, Desbiens & Cie., St. Jerome, Que., are applying for incorporation with a capital stock of \$10,000, to manufacture lumber, etc.

The Ontario Milling and Manufacturing Co., will erect a flour mill at Deloraine, Man.

The contract for the pumping engine for the Kingston waterworks has been awarded to Inglis Co., of Toronto.

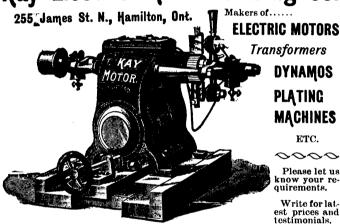
P. Genelle & Co., NaKusp, B.C., will build a saw mill with a 70,000-ft capacity.

John Leggett, Hanover, Ont., is contemplating the erection of a chair factory in Walkerton, Ont.

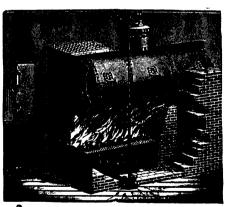
An English syndicate has purchased the Vancouver Electric Tram Company, Vancouver Electric Light Company, also the New Westminster and Vancouver Inter-Urban Electric Tram and Light Company, running a distance of twelve miles, also the New Westminster City Electric Tram Company. Half a million will be spent in utilizing the water power of Seymour River to run the entire immense system. An English syndicate has also bought the Victoria, B.C., tramway.

McIntyre, Remke & Boland are erecting a new sash and door factory and planing mill at Eganville, Ont.





LEADBEATER



Manufacturer of the

LEADBEATER IMPROVED

OR AIR FEEDING DEVICE

For burning hard coal and coke, screenings, soft slack, sawdust, tan bark,

441 24th Street Detroit, Mich.

In ordering this device be sure to give diameter and length of boiler.



ALIZARINE CYANINES.

The Alizarine Cyanine series, although belonging to the Alizarine family, differs from it in so much as the coloring property of the Alizarine Cyanines is far superior to that of the Alizarines. In regard to fastness both series are equally fast to all agents.

Alizarine Cyanine R. and G. were the two first products of this

series, discovered by the eminent Dr. Schmidt, of Germany. Alizarine Cyanine G. being an extremely green shade, in fact

greener than Alizarine green.

Alizarine Cyanine W.R.R. and W.R.B., also Alizarine G.G., R.G. and 3-R. double are rapidly being adopted by the leading mills of Canada. Alizarine Cyanine W.R.B. is a favorite brand on account of the beautiful, full, rich navy obtained.

By combining any of the above products any desired tone of blue is obtainable. Mode of application is similar to that of the Alizarines, namely, on a chrome mordant Brilliant Alizarine Cyanine G., and 3-C. are brands which are marked by particular clearness of shade and great fire; apart from this they have similar properties to the other Alizarine Cyanines, and suit equally well for dyeing or printing. In fact, "as fast as an Alizarine Cyanine" has become a by-word among dyers. Further information on the Cyanines may be obtained from Dominion Dyewood & Chemical Co., Toronto.

NEW FAST BLACKS.

Diamond black is becoming more and more appreciated on this side of the water as Canadian dyers become better acquainted with the excellent qualities of the Azo wool color.

The various shades are Diamond Black F., C.A., N.R., and N.

G. It dyes evenly and combines well with Alizarines, Alizarine Cyanines, Wood colors, etc.

The F. and N.G. are excellent shades and produce with 3½ per

cent. color full, rich blacks.

Mode of applic tion for dyeing 100 lbs. wool is as follows:—3½ lbs color, 10 lbs glauber salt, 2 per cent. acetic acid. Enter warm, bring slowly to boil, and boil for one hour. If the bath is not then exhausted add more acetic acid. After exhaustion add 1 per cent. (1 lb) chrome in solution, and continue boiling one-half hour, wrinse. Goods dyed in this way are exceedingly fast to light, milling, rubbing, stoving, acids and alkalies. Combination shades of say 3 per cent. Diamond Black, and ½ per cent. Diamond Green

EVERY LIVE BUSINESS MAN

List of the Manufacturers of Canada.

The Buyers' and Sellers' Guide of Canada

1895-96, contains:

- 1st—A list of such articles as are manufactured in Canada under 4,000 sub-headings, under which are 3,000 manufacturers of over 10,000 different articles.
- A list of Grain Merchants of the Province of Ontario and Manitoba who are classified as in the article list under subheadings of the kind of grain that is shipped from their
- -A list of Flour and Feed Merchants of the Province of Quebec and the Maritime Provinces who handle in car lots or larger quantities.
- A list of the Hardware Merchants throughout the Dominion who handle hardware goods only.
- 5th—A General List, alphabetically arranged for addressing purposes, comprising Saw, Lath and Shingle Mills, Heading and Stave Factories which cut from the log.

A list of Planing Mills, Sash, Door and Blind Factories, Furniture, Piano and Organ Factories, etc., which manufacture from lumber. A list of Grist, Flour, Chop, Corn Meal and Oat Meal Mills,

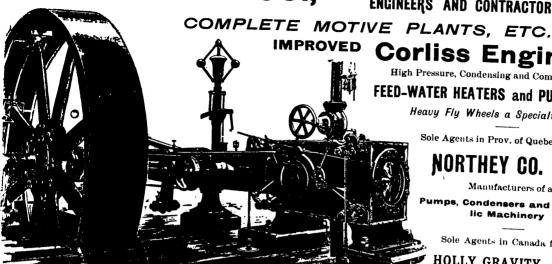
etc., which grind grain. A list of manufacturing Machinists, which includes all metal workers using steam power. A total of over 7,000 addresses.

PRICE \$5.00 PREPAID DELIVERY.

The Manufacturers' List Co., 224 Board of Trade Bldg., MONTREAL.

LAURIE ENGINE CO.,

ST. CATHERINE STREET EAST, MONTREAL ENGINEERS AND CONTRACTORS



Corliss Engines High Pressure, Condensing and Compound

FEED-WATER HEATERS and PURIFIERS

Heavy Fly Wheels a Specialty.

Sole Agents in Prov. of Quebec for

NORTHEY CO. Ltd.

Manufacturers of all kinds of

Condensers and Hydraulic Machinery

Sole Agents in Canada for the

HOLLY GRAVITY RETURN SYSTEM

Are You Looking

FOR ANY KIND OF MACHINERY?

We call Special Attention to the following:

Upright Engine 6 h.p. and Boiler

1 National Heater, No. 4.

Drive Transmits 20 h.p. 1 Rope Drive, Transmits 20 h.p.
Iron and Wood Pulleys, New and

Shafting, Hangers and Belting. All Sizes

Full assortment of Iron and Wood Working Machinery always on hand. WRITE-

439 Church St. TORONTO

FOR RENT

Suitable for light manufacturing, ground floor and story above, 50x90 feet each, with high ceilings, in solid brick building; good cellars, city water and sewar con-nection; access to building from both front and rear.

Electric power can be bought very cheaply, and exemption from taxes obtained. Building on Ontario St., St. Catharines, Ont.

For further particulars apply to JOHN G. MOORE, St. Catharines, Ont.

Welland Vale Manufacturing Co.

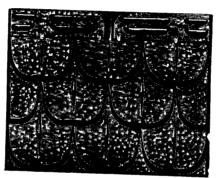
LOCK No. 2, ST. CATHARINES, ONT. Manufacturers of

AXES, SCYTHES, FORKS, HOES RAKES and EDGED TOOLS

METAL ROOFING

Those contemplating building the coming season would do well to send for our catalogue.

Cheap as a wooden shingle. Will last a life time.



Guaranteed to be Water, Wind. Storm, Fire and Lightning Proof.

THE PEDLAR METAL ROOFING CO.

Office and Works, Oshawa, Ontario In answering please mention this paper.

Steam Traps

Pipe Machines

Buffing and Polishing Lathes Strapping Machines Shafting Hangers

G. T. Pendrith

MANUFACTURER

73 to 81 Adelaide Street West **TORONTO**

BALL CHECK VALVES. BALL GLOBE VALVES.
BLOW-OFF VALVES FOR BOILERS A SPECIALTY OIL AND SALT WELL SUPPLIES.

DraperManufacturer of

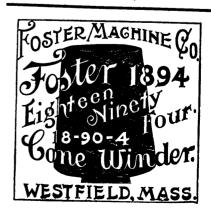
Refacers for Globe Valves



Jenkins' **Valves** and Water Taps

Perfectly True Brass Balls

For all purposes—Hollow or Solid. PETROLEA, ONT.



produces a very intense black; various tones may in this way be obtained. A beautiful range of fashion shades may be produced by using Diamond Black in conjunction with the Alizarines.

European demand for this color led the makers to erect an additional plant, and are now in a position to supply the increasing demand. For further particulars apply to Dominion Dyewood & Chemical Co., sole agents for Farbenfabriken Vorm, Friedr, Bayer & Co., Elberfield, Germany.

THE IRON INDUSTRY IN NOVA SCOTIA.

This industry, in common with the coal trade, has experienced the dullness which has prevailed over the American continent. It is pleasing to note that it has recovered and is at present pros-

perous.

During the twelve months under review the New Glasgow Iron, Coal and Railway Company has been united with the Nova Scotia Steel Company, the enterprise which Nova Scotians can justly point to as probably the most successful joint stock enterprise ever launched in the province. This company is extending its operations and is supplied with an admirable Bessemer pig from its furnace at Ferrona. The possibility of lengthening the runs of this furnace on steel material is in itself an item of economy, rendered feasible by the growth of the steel works. The furnace was started again in the summer and ready sales of pig are since reported. After a long vacation the Londonderry works went into blast again, and it is reported are contemplating the reopening of their rolling-mill. The large contract secured by this company for the pipes of the new gas company in Halifax will keep their foundry running for some time. The charcoal furnace at Bridgeville, Pictou county, had a short campaign of about a month. As yet, however, the price of charcoal pig has not recovered itself sufficiently to permit of their continuous operation. It may be questioned if the admirable pig made here would be available for steel making, as is the case with some of the better Swedish brands.

The Torbook mine has been running steadily with a total output 90 940 tons divided between Londonderry and Ferrona. The of 29,940 tons divided between Londonderry and Ferrona. vein worked at this mine improves in depth, in quality and thickness, and has been found to extend about three-quarters of a mile to the westward of the present works.

The Nova Scotia Steel Company have suspended operations at their Arisaig mines, having discovered a deposit of iron ore of higher grade at Bell Island, near St. John's, Nfld., which they are opening for shipment next spring.

The production of pig iron stands as follows for the twelve months ended Sept. 30, 1895, although the output is more truly

for the last six months of that period :-

| Pictou Charcoal Iron Co | 17,321 |
|-------------------------|--------|
| Total | 29,090 |

Returns so far received show that during the year there were 79,636 tons of ore mined, of which amount the Charcoal Company, in addition to 598 tons smelted, mined and sold 7,541 tons. were 36,532 tons of coke reported from the Pictou coal mines and the Ferrona furnace, and about 25,050 tons of limestone quarried.

It is anticipated that the Londonderry and Ferrona furnaces will make a large and steady output for some time; so that next year's operations, which have already made a promising start, will

make the best returns yet shown.

Little has been done with any of the other well-known iron deposits of the province. The furnaces are well supplied with ore, and freight considerations prevent much competition for local furnace supplies. Should the scheme of building a blast furnace at St. John be carried out, there is no doubt that the iron ores of the Bay of Fundy will be largely drawn upon, and should the prices of iron in the United States continue to rise, a demand will be made for high grade and conveniently situated ores in Nova Scotia. In this connection may be mentioned the accessible and purer deposits of Torbrook and Nictaux, and the ores lying be-tween Maitland and Windsor.—Canadian Mining Review.

Hazen Copp, Port Elgin, Ont., is erecting a grist mill. Robb Engineering Co., of Amherst, N.S., are placing the ma-

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The John Gillis Estate Company, Carleton Place, Ont., have been incorporated with a capital stock of \$120,000, to manufacture mining and electrical machinery, etc.

A bill has been introduced into the United States Senate authorizing the Michigan Central Bridge Company to construct a railroad bridge across the Detroit River at Detroit. The length of the main channel span is to be not less than 1,100 feet in the clear. Only two piers are allowed inside the bulkheads. It is specifically provided that the bridge shall not materially obstruct navigation.

Messrs. H. A. Lozier & Co., the large American bicycle manufacturing concern who have recently started a branch of their works at Toronto Junction, near this city, announce their intention to erect a plant for the manufacture of steel seamless tubes, to be operated in connection with their bicycle works, with capacity to supply the entire Canadian bicycle manufacturing trade. Mr. Lozier was the first man to erect a tube works of this description in the United States.

For some time there has been considerable friction between the Canadian and the American stockholders in the Hamilton Iron and Steel Company, and as a natural consequence the completion of the works has been in some measure delayed. Now, however, the American stockholders have been bought out, and the whole concern is in the hands of the Hamilton men. Mr. Moorehouse, who is treasurer and general manager of the company, has sold his stock to Hamilton people and has resigned his offices in the company, and A. T. Wood of this city has been elected a director in his place. The work will now be pushed as rapidly as possible, and the furnaces will be "blown in" by Jan. 1 and the bonus earned. The company is to be congratulated upon having got rid of an incubus which seriously retarded its work, and the city is to be congratulated upon the fact that the entire stock in the company is now held by Hamilton men. There will be no further de-lay in the construction of the works.—Hamilton Spectator.

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from October 1 to October 14, 1895.

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

Fetherstonhaugh & Co., Bank of Commerce Building, Toronto. Ridout & Maybee, 103 Bay Street, Toronto.

C. H. Riches, Canada Life Building, Toronto.

A. Harvey, Central Chambers, Ottawa.

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

50,102 Trimmer guide, Francis J. Freese, Lowell, Mass.

50,103 Horse rake, David Maxwell & Sons, assignees of David Maxwell, sr.. St. Mary's, Ont.

50,104 Lawn mower, Horace L. Freeman, Lexington, N.C.

50,105 Saw gummer, William McLean and Edward Davies, Tie Siding, Wyoming.

50,106 Steam engine, Willis Durwood Sherman, Brooklyn, N.Y.

50,107 Lifter for stove lids, William F. Greene, Troy, N.Y.

50,108 Ironing machine, William Phillips, Northville, Mich.

50,109 Book-case, William Mundy, Poindexter, Washington, D.C. 50,110 Stove-pipe damper, Charles Treadwell Redfield, Glen Haven, N.Y.

50,111 Car fender, Adam Leightham, assignee of J. Leightham, Reading, Pa.

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50,112 Car fender, Adam Leightham, assignee of J. Leightham, Reading, Pa.

50,113 Rennet test, Adolf J. Marschall, Little Falls, N.Y.

50,114 Street car track sweeper, Amedee Houle, Montreal.

50,115 Steam boiler, George H. Burley, Tyrone, Pa.

50,116 Bicycle seat, Colonel Ellsworth Amsden and Wilbur S. Burns, Grand Rapids, Mich.

50.117 Beer cooler and transformer, Thomas Burdett, Montreal.

50,118 Calendar, The Eclipse Office Furniture Company, assignee of Clarence E. Mountford, Ottawa.

50,119 Automatic vending machine, Britten & Bradshaw, Toronto, assignees of Walter H. Grout, Grimsby, Ont.

50,120 Washing machine, Charles Prast, Waterloo, Ont.

50,121 Dust collector, Henry L. Day, Minneapolis, Minn.

50,122 Wind mill, Westley H. Fletcher, London, Eng., assignee of Sarah Jane Rollason, South Hamstead, Eng.

50,123 Conductor's box, Patrick Coleman, Montreal.

50,124 Extension table, Jacob S. Knetchel, Hanover, Ont.

50,125 Washing machine, William A. Wallingford, Bloomington,

50,126 Skate plane, William B. Lynch, Philadelphia, Pa.

50,127 Gas burner, John A. Crawford, Cyrus B. Angell and Wilson J. Willis, Findlay, O.

50,128 Vilbrequin, Nazaire A. Demers, St. Nicholas, Que.

50,129 Pneumatic tire, Fred W. Morgan and Rufus Wright, assignees of Ernest W. Young, Chicago, Ill.

50,130 Carved shingle clapboard, Levi H. Montross, Harry A. Montross and Fred L. Montross, Camden, N.J.

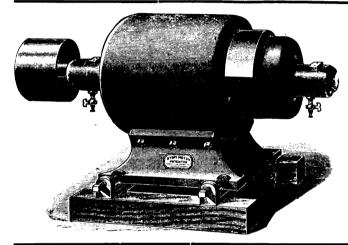
50,131 Light signal, David H. Heap, Portland, Me.

50,132 Water bag, William H. Daly, Bayonne, N.J.

50,133 Return water trap and boiler feed, William Norris, Toronto.

50,134 Cranes, mortar mills and similar apparatus, Thomas Whitaker, Horseforth, York, Eng.

50,135 Box for nail-driving machines, John J. Hayes, Flushing, N.Y.



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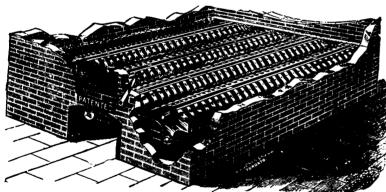
- 50,136 Feeder for nailing machines, John J. Hayes, Flushing, N.Y.
- 50,137 Spring adjusting apparatus, Jean B. Schlecht, Mainz, Darnstad, Germany.
- 50,138 Artificial teeth, George A. Johnston and Houston M. Carroll, San Antonio, Texas.
- 50,139 Wood-bending machine, Gustave Stickley, Syracuse, N.Y. 50,140 Neck-tie fastener, Charles Mole, Boston, Mass.
- 50,141 Automatic delivery of cards, indicating the time of delivery, Edward P. Dupuis, Haale-on-the-Saal, Prussia.
- 50,142 Burners for illuminating gas, Charles A. Shaw, Boston, Mass.
- 50,143 Scale weighing machine, Henry B. Pullen, Burry Lipshook, Hampshire, Eng.
- 50,144 Toilet paper holder, Jonathan Lucas, Charleston, S.C.
- 50,145 Cleaner for cisterns, etc., Charles A. Butterfield, assignee of William A. Latham, Dewitt, Ia.
- 50,146 Beer-pipe cleaner, Albert B. Ogden, Highlands, Colorado, and Charles Cummings, Cincinnati, O.
- 50,147 Window fastener, Ernest Peters, Tompkins, Mich., assignee of Charles Fowler, Lowell, Mass.
- 50,148 Meat cutter, the Peck, Stow & Wilcox Company, Southington, assignee of Robert C. Elbrich, Hartford, Conn.
- 50,149 Feed water heater, Henry Griffith, Keasly, Amblet, Pa.
- 50,150 Grave signal, Hubert Deveau, New York, N.Y.
- 50,151 Hot corn holder, Paul Dinkelspiel, New York, N.Y.
- 50,152 Valve, the Homestead Manufacturing Company, assignee of Harry E. Keyes, Homestead, Pa.
- 50,153 Door fastener, Mike P. Pirtle and John W. Miller, Louisville, Ky.
- 50,154 Oil filter, Peter Brooks and P. S. Cassidy, Philadelphia, Pa. 50,155 Production of ferments, Jokichi Takamine, Chicago, Ill.

- 50,156 Ladder fire escape, Jean F. Chazotte, et Adjusteur Carmel, Montreal.
- 50,157 Combined letter-heads, bill-heads, receipts, with a stub attachment and envelope, and means of advertising, Henry Eummelen, Vancouver, B.C.
- 50,158 Fruit-picking and step-ladder, David Spicer, Exeter, Ont. 50,159 Valve, John C. Fountain, Parkhill, Ont.
- 50,160 Advertising device, William A. Thompson, Toronto.
- 50,161 Dynamo, J. Stone & Company, assignee of Edwin J. Preston and Arthur B. Gill, Deptford, Eng.
- 50,162 Machinery for the manufacture of nails and spikes, Hiram E. Fuller, Birmingham, Eng., and Reginald Livesey, Wimbledon, London, Eng.
- 50,163 Fastening for window sashes and sliding doors, David A. Crichton, Los Angeles, Cal.
- 50,164 Water-gas apparatus, the United Gas Improvement Company, Philadelphia, Pa., assignee of John Morrell Rusby, Jersey, N.J.
- 50,165 Fancy brick, etc., the National Opalite Glazed Brick and Tile, Syndicate, London, Eng., assignee of Anthony Shelmerdine, Liverpool, Eng.
- 50,166 Corset steel, Oswald F. E. Borchardt, New York, N.Y.
- 50,167 Sheet metal can, John Lee, San Mateo, Cal.
- 50,168 Bottle and bottle stopper, Lewis Kalling, Baltimore, Md.
- 50,169 Bolting reel, William F. Maish, Warsaw, Ind.
- 50,170 Dutch harness, Thomas A. Jackson, Mount Pleasant, Ont.
- 50,171 Pyrotechnic compound, John Graham, Boston, Mass.

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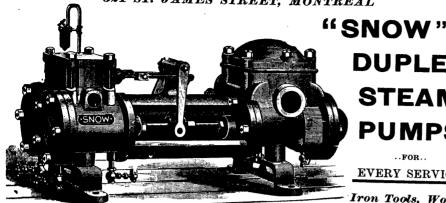
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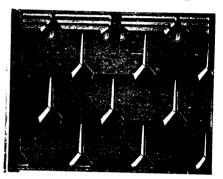
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References:

Menzie, Turner & Company, Toronto. Dominion Suspender Co., Niagara Falls, Ont. 50,172 Curtain pole, Manton T. Bentley and Mary E. Bentley, Patterson, N.J.

50,173 Fire extinguisher, Walter Robert Johnston, New York, N.Y. 50,174 Device for strengthening and protecting pneumatic tires, Arthur F. Boond, Hamilton, Ont.

50.175 Steam turbine, Jorgen G. Maardts, Copenhagen, Denmark,

50,176 Fire escape, Wilbrod Boundon, Velleyfield, Que.

50,177 Mechanical toy, William S. Cooper, Newport, R.I.

50,178 Bread and tobacco knife, Joseph C. Richard, Quebec, Que. 50,179 Car-coupler, James W. Tolar, Wllksburg, Miss., and Benjamin D. Langston, Gass, Miss.

50,180 Bed-clothes holder, Russell T. Joy, South Orange, N.J.

50,181 Combined cigarette paper holder and receptacle, Walter B. Hobbs, Cornhill, London, Eng.

50,182 Hasps, William Firfield, Perth Amboy, N.J.

50,183 Harp, æolian attachment for pianos, John H. Kydd and John B. Mitchell, Bowmanville, Ont.

50,184 Combination automatic pedal cover and music box for reed organs, John H. Kydd and John B. Mitchell, Bowmanville, Ont.

50,185 Lifting clips for vessels, George B. Meadows, Toronto...

50,186 Extension table, Rudolph H. Ripking, Aurora, Ind.

50,187 Athletic suits for ladies, Ida May Rew, New York, N.Y.

50.188 Explosive, Edward Dickson, Oak Lake, Man.

50,189 Water wheel, Ovide Parent, Montreal.

50,190 Tone arrangement of piano strings, Franz Hoerr, Toronto-

50,191 Pulley, Darius E. Newell, New York, N.Y.

50,192 Dredging apparatus, Alexander McDougall, Duluth, Minn.

50,193 Trunk, Martin M. Secor, Racine, Wis.

50,194 Trunk, Martin M. Secor, Racine, Wis.

50,195 Type-writing machine, Herman L. Wagner, Derby, Conn.

50,196 Threshing machine, the Thresher Company, assignee of Charles F. Goddard, Chicago, Ill.

50,197 Organ, John D. James, assignee of Edward E. Brock, Bentonville, Ark.

50,198 Medicinal compound, Daniel Byer, Stouffville, Ont., assignee of Abraham B. Lehman, Pickering, Ont., and Henry Barkey, Markham, Ont., executors of the last will and testament of David Byer, late of Markham, Ont.

50,199 Knife and sickle grinder, Herbert C. Deane and Samuel W. Sawyer, Fitchburg, Mass.

50,200 Hernial truss, William H. E. Bravender, Warners, N.Y., and the Weedsport Spring Wire Truss Co., assignees of Ben Ralph Lathrop, Weedsport, N.Y.

50,201 Roller bearing and journal box, The International Patent Promotion and M'f'g. Co., assignee of William E. Paige and Joshua F. Wright, Chicago. Ill.

50,202 Workmen's time recorder, Edward G. Watkins and Heywood Brothers & Co., Gardner, Mass

50,203 Machine for perforating hollow or pneumatic tires, Fred. W. Morgan and Rufus Wright, assignee of Rufus Wright and John E. Parker, Chicago, Ill.

50,204 Vegetable fork, George B. N. Dow, Manchester, N.H., and William A. J. Giles, Concord, N.H.

50,205 Steam generator, Anson C. Dearing and Jacob Siegel, Detroit, Mich.

50,206 Hame fastener, Thomas M. Martin and George E. Watson, Omaha, Neb.

50,207 Device for preventing refilling of bottles, Robert E. Gill and Frederick W. Bottz, Cleveland, O.

50,208 Apparatus for treating the fire gases evolved in steam boiler and other furnaces, James P. Gourock and James R. Sandilands, Glasgow, Scotland.

50,209 Non-fillable bottle, Adolph H. Friese, New York, N.Y.

50,210 Brake slack adjuster, Frank Robinson, Bangor, Me., and James H. Sewall, Worcester, Mass.

50,211 Saw shifter, Charles F. Nyberg and Joseph A. Gillard, Minneapolis, Minn.

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50,215 Flour bolt, Levi Hertzler, Mechanicsburg, Pa.

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50,217 Portable fence, Thomas Stillaway, Binbrook, Ont.

50,218 Dustguard for railroad car axle boxes, Hugh Sym, Montreal.

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50,220 Fire extinguisher, Arthur H. Durand, Montreal.

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50,222 Structural support for railway systems, John D. Reed, Boston, Mass.

50,223 Weather strip, Charles M. Becker, Port Rowan, Ont.

50,224 Ball bearing, Francis M. Lechner, Columbus, O.

50,225 Currycomb, Reuben C. Eldridge, Niagara Falls, Ont.

50,226 Chimney cowl, Cyrus N. Shannon, St. Cloud, Minn.

50,227 Thill coupling, Elias A. Benner, Noblestown, Pa.

50,228 Thill support anti-rattler, Ernest Duval and Willard E. Derby, Hamilton, Ont.

50,229 Process of inserting floats in cakes of soap, Washington Berry, Chicago, Ill.

50,230 Bean picker and cleaner, George F. Crippen, Ypsilanti, Mich.

50,231 Cork screw, John C. C. Read, Harborne, Eng., assignee of George I. Hurst, Stafford, Eng.

50,232 Process of manufacturing animal food, Fritz V. Friderichsen, Ny Stormgade Dannemark.

50,233 Railway chair, Gilbert A. Bartholomew and Reuben B. Mitchell, Maumee, O.

50,234 Sifting and washing machine for sand, gravel, coal and other material, Carl Martini and Hugo Grupe, Lehrte, Germany.

50,235 Process for compressing and simultaneously shaping hollow ignots and apparatus therefor, Loussaint Bicheroux, Dusseldorf on the Rhine, Germany.

50,236 Railway frog, John F. Shea, Carthage, N.Y., assignee of Daniel E. Shea, Watertown, N.Y.

50,237 Water tube boiler, The Hogan Boiler Co., assignee of John J. Hogan, Middletown, N.Y.

50,238 Boiler, The Hogan Boiler Co., assignee of John J. Hogan, Middletown, N.Y.

50,239 Apparatus for producing and burning gas, Alfred Baldwin and Stanley Baldwin, assignees of William Felton, Worcester, Eng.

50,240 Flour milling machine, Charles S. Rider, Stratford, Ont.

50.241 Nutmeg grater, Karl A. Lantan, Chicago, Ill., assignee of Henry W. Schoff, Oak Park, Ill.

50,242 Spinning top, Daniel W. Long and Harry H. Walsh, Lockport, Ill.

50,243 Building brick, George S. Balsley, Detroit, Mich.

50,244 Adjustable bicycle handle, Wilson D. Snively, Petrolia, Ont.

50,245 Apparatus for storing and feeding oil, Luther C. Snell, Detroit, Mich.

50,246 Fruit cleaning machine, Caleb Duckworth Colne, Lancaster, Eng.

50,247 Sugar case, William Wale, London, Eng.

50,248 Nipple, Charles P. Kinnell, London, Eng.

50,249 Combined picket and clip for wire fences,
Alonzo Badgley, Euphemia, Ont.

50,250 Hat holder, George J. Johnson, St. Paul, Minn.
 50,251 Adjustable garment pattern, Hamilton M. Lambright, Akron, O.

5,252 Electric battery, Samuel H. Hoggson, St. Louis, Missouri.

50,253 Gate, John H. Morris, Magnoketa, Ia.



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50,256 Spoon, Felix A. Belcher, Toronto.

50,257 System of electric arc lighting, Daniel Higham, Boston, Mass.

50,258 Fertilizer, distributor, Lewis Roat, Milton, Pa., Henry Roat, Morresburg, Pa., and Luther E. Roat, Milton, Pa.

50,259 Plant duster, George Wilber, Escott, Ont., and Reuben A. McLelland, Brockville, Ont.

50,260 Method of teaching book-keeping, John Keith and George McLaurin, Ottawa, Ont.

50,261 Cigarette machine, Wm. Maxfield and Edmond C. Brown, Brooklyn, N.Y.

50,262 Forceps, Elisha Whisson and Herbert W. Wilcox, Le Mars, Ia.

50,263 Garment supporter clasps, Fred. D. Harding, Baldwin, Me., Byron G. Clark and Charles H. Reed, Boston.

United States Patents to Canadian Inventors.

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

550,413 Drawing board, S. J. Laughlin and J. Hough, Guelph, Ont-550,819 Sleigh velocipede, W. S. Burgess, Three Rivers, Que. 550,684 Fender for street cars, D. S. Macorquodale, Toronto, Ont. 550,894 Cover for cooking utensils, W. C. Mapledorum, Ft. Wil-

liam, Ont. 550,836 Car coupling, J. D. McDonald, Port Morien, N. S.

550 837 Tire inflator, D. McKenzie, London, Ont. 550,634 Seal lock, T. Mounce, Toronto, Ont.

550,266 Screen for photomechanical printing processes, E. G. D.

Deville, Ottawa, Ont. 550,976 Golf club, W. T. Jennings, Toronto, Ont.

551,039 Horse rake, D. Maxwell, St. Mary's, Ont. 551,093 Water wheel, O. Parent and J. A. Grenier, Montreal, Que.

551,013 Holdback for thills, P. S. Van Wagner, Stony Creek, Ont. 551,262 Steam engine, W. F. Cleveland and E. W. Cleveland,

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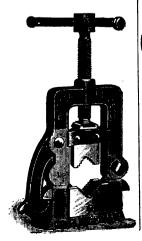
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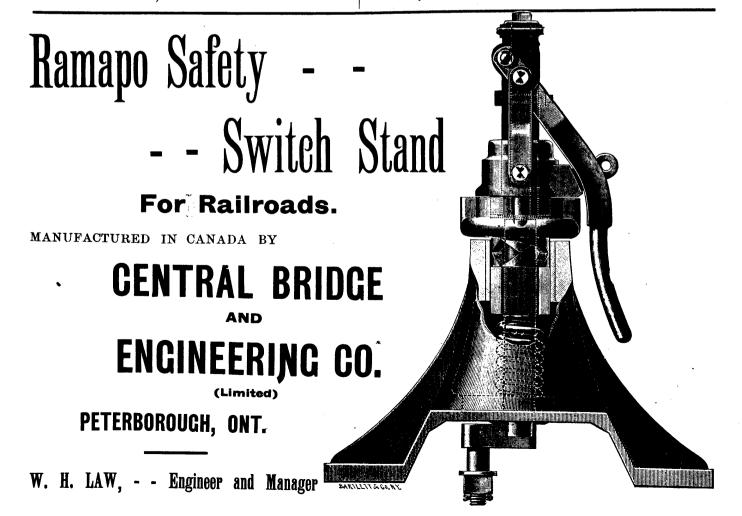
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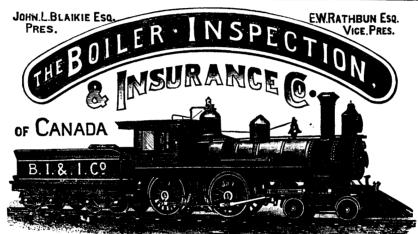
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