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CANADIAN MANUFACTURER

AND INDUSTRIAL WORLD

DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

Vol. 24.

TORONTO, FEBRUARY 3, 1893.

No. 3.

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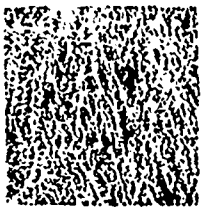
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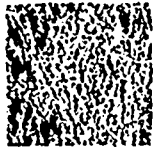
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Large Double Belts made up to any width. Send for our Belting Hand Book and Discounts.



A



B



C



D



E

Patented comparison of (a) Tanned Leather for Belting used in Canada for year ending June.

- A. The Total Importation.
- B. Quebec's Importation, 5 Belting Factories.
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- D. Ontario's consumption, 2 Belting Factories.
- E. Showing percentage consumed by the balance (4) Belting Factories in Quebec.

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See Advertisement, Page 92.

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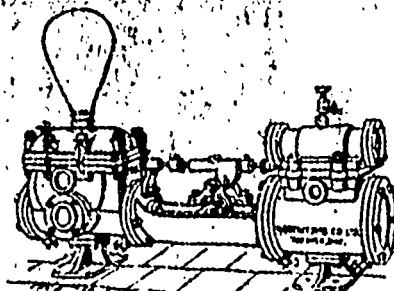
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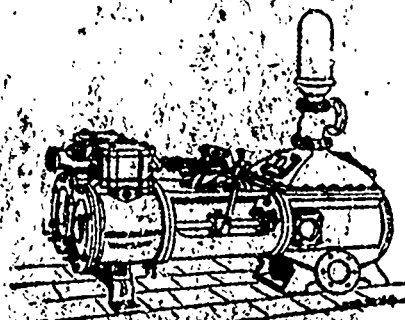
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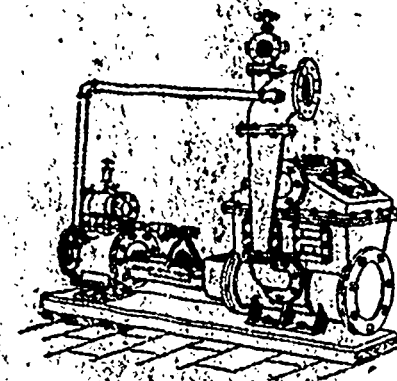


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CANADIAN MANUFACTURERS' ASSOCIATION.

The Secretary of the Canadian Manufacturers Association has issued a call for the eighteenth regular annual meeting of the Association, to be held in Toronto, on Tuesday next, the 7th inst., at 2.30 o'clock in the afternoon, and for a meeting of the Tariff Committee of the Association to be held on Tuesday the 14th inst., at the same hour in the day, for the transaction of such business as may come before it.

An impression prevails that at the present session of the Dominion Parliament propositions will be entertained to alter and amend the tariff in certain particulars. No change can possibly be made in the tariff that will not in some manner affect some Canadian manufacturing industry. This being the case, in view of possible changes, Canadian manufacturers should be alert in looking after their individual interests. This can best be accomplished by and through this Association, where its influence as such, and that of its members, including those interested in all the various industries of the country, is brought to act in concert in looking after and advocating the interests of the individuals who compose the Association.

The enemies of the National Policy seek to discredit it by

declaring that the manufacturers are opposed to any changes or modifications of the tariff, no matter what necessity therefor may exist. Of course this is not true. The manufacturers recognize the fact that the circumstances of the age in which we live require that changes be made in the tariff from time to time, and that it is to their interest, and to the interest of the whole country, that they be made promptly when needed. Such changes must be made by either the friends or the enemies of the National Policy. If the friends of it are alert to their interests the changes will be made by them. If they are supine, its enemies will quickly destroy its vitality and effectiveness.

It does not follow that because tariff changes are necessary they should always be made with a downward tendency. If obstructive prominences must be leveled down, the depressions should be leveled up. This is according to the ethics of protection.

It is of the utmost importance that the manufacturers, who are friends of protection, should meet and give expression to their views in this matter, promulgating them to the Government and to the public at large. And, that this may be the better done, it is very desirable that there be a large meeting of manufacturers, as above indicated, for this purpose. This invitation is extended to all Canadian manufacturers, whether members of this Association or not. Those who are not already members are invited to become such; and any person directly interested in any Canadian manufacturing industry is eligible for membership.

At this forthcoming meeting of the Association the Tariff Committee for the ensuing year will be chosen; and it is a meeting of this committee that is called to assemble on February 14th. This committee will be fresh from the Association and fully conversant with the views of the members. Its duty will be to consider all applications and suggestions from manufacturers regarding tariff matters and the administration of the customs laws, who may desire the co-operation of the Association; and it is particularly desirable that manufacturers who may desire the co-operation of the Association should be present and lay their matter before the Tariff Committee.

MR WILKIE AND THE TARIFF.

Last week Mr. D. R. Wilkie, who had been elected president of the Toronto Board of Trade by acclamation, was inducted into his office; and in his inaugural address he expressed his views upon some important subjects of national interest.

Thus in speaking of the iron industry he asked if it were not possible, by an extension of the bounty system, and by a reduction in the tariff on iron, to fuse the apparently diverse interests of producer and consumer. He alluded to the fact that at present the duty upon imported iron varied from \$2 per ton (upon wrought scrap), to \$13 (upon rolled bars), a bounty of \$4 per ton being allowed by the Dominion Government upon all (pig) iron manufactured in Canada. He also stated, as reported in the morning papers, that the duty collected upon iron and steel, "manufactured and unmanufactured," for the fiscal year ending June, 1892, amounted to \$2,792,018; while the bonus earned by the smelting companies

—the producers of pig iron—amounted to only \$30,204. He thought that the country could well afford to make a material reduction in the duty upon iron, if the manufacturer in iron—the consumer of iron—would be enabled thereby to compete on better terms than at present with his foreign rivals for his own and for their market. On the other hand, Mr. Wilkie thought, the development of the iron industry in Canada is of even greater moment, and that any government that succeeds in developing that industry by bounty or otherwise, without undue pressure upon the revenue, would receive the thanks of the country, irrespective of party. He also declared that the establishment of iron furnaces in Toronto would add very largely to the wealth and importance of the city.

Not only Toronto but all Canada agrees most heartily with Mr. Wilkie as to the importance of what he calls the iron industry. But he knows that there are many branches of that industry, and what may be the raw material in one of those branches may be the finished product in another. Thus while pig iron may be the raw material of the foundryman who makes stoves, machinery, water and gas pipe, etc., it is the completely finished product of the furnaceman, who smelts it from the ore. It is impossible in the nature of things that all the various branches of the iron industry should view the tariff upon iron and manufactures of iron from the same standpoint; and it can only be by the exercise of the best judgment of the people that a happy and proper medium should obtain.

The first point, then, in the consideration of the question of whether Canada should establish and maintain an iron industry is to agree that if such industry must be of the widest scope, we must produce our own iron, smelted from the ores found in our own country. That is to say, if we are to have a Canadian iron industry we must, in the first instance, establish blast furnaces enough to supply the demands of other branches of the industry for pig iron. To all but the furnaceman pig iron is a raw material. Being agreed upon the importance of the blast furnace industry, our great anxiety should be to establish and build it up; and we know that under no fiscal system which has ever obtained in this country have we ever succeeded in establishing and operating blast furnaces enough to supply a tithe of the pig iron required. This has not been because we have not got the raw materials of pig iron—ore, fluxes and fuel—for we have them in abundance. Nor is it because we have not got the skilled labor and the necessary capital, for these are, and will always be, available whenever the other conditions are propitious. Free trade in iron, when we had it, was not propitious. A low revenue tariff was not propitious. A bounty of \$2 per ton—not \$4, as Mr. Wilkie is reported as saying, has not proved efficacious: nor has a bounty of \$2 per ton, and a tariff duty of \$4 per ton brought about the desired result. If yet greater inducements must be held out, it must be in excess of \$2 bounty, plus \$4 duty. What shall it be? We have knowledge that a company in embryo now exists in Toronto, where abundant capital is available to erect iron and steel works in this city, which would produce 300,000 tons of pig iron, and proportionately of steel, and would have entered upon the enterprise before this, if what the promoters thought proper encouragement had been extended. What do they think would be "proper encouragement?" Simply

that the existing duty of \$4 per ton should be continued for a term of, say, fifteen years; that the bounty of \$2 per ton now paid by the Dominion Government should be guaranteed for a like term, and that the Ontario Government should bestow a like bonus of \$2 per ton for a concurrent term of years. Some inducements to be offered by the city were also a part of the consideration. If this encouragement were offered and guaranteed, no doubt we would soon have the iron and steel industry here; and if the same encouragement were offered to all comers, no doubt Canada would soon be a producer of pig iron and steel to a large extent—large enough, perhaps, to supply a great portion of the demand. We do not think it possible that this situation could possibly be brought about under any less favorable terms than those indicated; and never, if the duty was materially lowered, as Mr. Wilkie suggests.

The question then is, Are we to have the industry established, as it is possible, through necessary encouragement; or must we forever forego the prospect of having it by following the suggestion of Mr. Wilkie?

The whole question hinges upon this point, and when it is decided, fixing the duties upon the other branches of the iron industry, will be comparatively easy. Thus, if it is decided to encourage the blast furnace industry, there would have to be an adjustment of the duty affecting wrought scrap iron, and perhaps rolled bars. The duty on wrought scrap could be very safely increased without the probability of increasing the price of bar iron; or if not that, then the duty on bar iron could be decreased with good results. And so on through all the forms of iron and steel. There may be quite a number of special forms and qualities of iron and steel which will not be made in Canada for a number of years, upon which comparatively high duties are imposed, and upon these it would be safe and quite proper to reduce the duties.

Mr. Wilkie's views, as reported in the newspapers, are somewhat vague but, perhaps the circumstances attending their utterance were against him. From his position in business circles in Toronto, and from his well known and enviable reputation throughout Canada, his suggestions will carry much weight; and from his open and outspoken advocacy of the National Policy for years past, we are assured that whatever influence he may see proper to exert in the direction indicated by his inaugural address, it will be as a friend of that policy, not as an enemy.

IMPOSE A DUTY ON STEEL RAILS.

SINCE the speech made by President Van Horne, of the Canadian Pacific Railway Company, at the recent Board of Trade banquet, in which he spoke favorably of the proposed fast trans-Atlantic ocean steamer service to and from Canadian ports, much interest has developed regarding the matter. It would, indeed, be a fine thing for Canada if we had such a service, and the cost was not greater than the worth of it. But there are other propositions which are being discussed which, in our opinion, would, if materialized, be of infinitely greater value to Canada. Among our most pressing and imperative needs we enumerate the establishment of steel works for the manufacture of steel rails and of other forms of

steel; and of the deepening of our artificial waterways, by which freight steamers drawing sixteen feet of water could have ready access to Port Arthur and other Lake Superior ports.

For obvious reasons when the Dominion Government were assisting in the construction of the Canadian Pacific Railway they refrained from levying any duty upon steel rails. The desire was to push the road to completion as rapidly as possible, and there were no rail mills in Canada. It is quite true that one or more such mills might have been established at the time, even if it had been necessary for the Government to have contributed largely for the purpose, and they would have been kept busy from that day on. If it had been done it would have given employment to large numbers of Canadians and would have been the means of inducing the immigration of a class of workmen who would have been of incalculable benefit to the country. The outlay of money for rails since that time has been simply enormous; and since the completion of that road the requirements for relaying, for side tracks and switches, and for spur lines and new roads have amounted to hundreds of thousands of tons of rails per year, costing millions upon millions of dollars. Last year our imports of steel rails aggregated over 92,000 tons, valued at over \$1,700,000, and sufficient to lay nearly a thousand miles of track. This indicates the volume of business being done in one article not manufactured at all in Canada, and which might have been made here quite as well as not.

It is the idea of Mr. Wilkie, president of the Board of Trade, that a Canadian iron and steel industry could be built up and established, not by or under our present system of tariff protection, which he wishes to have modified, but by the bestowal of suitable bonuses. Why not carry out this desire to establish the industry by imposing a duty of, say, \$10 per ton upon steel rails, and giving a bonus of that amount upon the manufacture of steel rails and other forms of steel in Canada? A duty of that amount would realize in the neighborhood of a million dollars per year; and the offer of such a bonus would, undoubtedly, soon result in the establishment of steel rail mills which would do much to supply the demand for steel products. If the business results were similar to those in the United States, the difference in price of rails in Great Britain or Belgium and Canada would be measured by the cost of transportation.

We are all agreed as to the value and importance to Canada of our magnificent waterways; a great drawback to our self-congratulations being that so few Canadian vessels use them. If the navigation admitted of the passage of vessels drawing sixteen feet of water, steamers with grain cargoes could proceed direct from Port Arthur to Europe, saving to the trade the heavy charges now imposed for lighterage, transfers and harbor dues at some point; and if these inducements were not sufficient, instead of imposing fees for passing through the canal locks, as is now done, no such charge should be made. In fact the Government might well afford to make all the canals free, and even to pay a small bounty to vessels loading in Canadian Lake Superior ports and proceeding directly across the ocean. The revenue derived from the duty upon steel rails, or a part of it, might be used in this way, thereby giving the farmers of Manitoba much cheaper freights in their

grain than what their American competitors could possibly obtain.

Another element of benefit to all the country west of Montreal would be to very materially reduce the duty on bituminous coal, or still better, remove it. If this were done all the manufacturing industries west of Montreal would be supplied with coal brought from Wales in steamers seeking grain cargoes from Ontario and the Lake region. Such coal could be laid down in Toronto cheaper than any fuel now consumed here; and this would give a wonderful impetus to all manufacturing industries.

No doubt the railroad people would fight against any effort that might be made to impose a duty upon steel rails, but even their objections might be quieted by the voice of the people.

CANADA AT CHICAGO.

THE recent report of Prof. Saunders on what Canada has done and proposes to do in the way of making exhibits at the forthcoming Columbian Exhibition at Chicago, is quite interesting. After giving some valuable information in the matter, in alluding to the arrangements made for the display of Canadian manufactures, it enumerates the names of the exhibitors as follows:

In the "Manufactures" building allotments of space have been made to D. Morrice & Sons, John C. Watson & Co., H. R. Ives & Co., Consumers Cordage Company, Belding, Paul & Co., J. C. Wilson & Co., E. Chantaloup, George T. Slater & Son, Lyman, Sons & Co., Rolland Paper Company, Warren Scale Manufacturing Co., Montreal Cotton Company, Globe Woollen Mills Company, of Montreal; Wm. Marsh & Co., Felix Gourdeau, G. Rochette, C. Bellerive, Quebec; Cascade Narrow Fabric Company, Coaticook, Que.; Corticelli Silk Company, St. John, Que.; Dodge & Adams, St. John, N.B.; Epps, Dodge & Co., St. George, N.B.; Yarmouth Woollen Mills Company, Yarmouth, N.S.; Diamond Glass Company, New Glasgow, N.S.; McDonald Bros., Glendyer, N.S.; Oxford Furniture Company, Oxford, N.S.; Toronto Carpet Manufacturing Company, Beadmore & Co., C. Wilson & Son, J. McCausland & Son, Brown Bros., Barber & Ellis, Cobban Manufacturing Company, Acme Silver Company, W. B. Malcolm, E. & C. Gurney Company, J. H. Rogers, Don Valley Pressed Brick Company, Toronto, Ont.; W. E. Sanford & Co., Canadian Screw Company, Gurney Scale Company, B. Greening Wire Company, Hamilton, Ont.; S. & H. Borbridge, Cole's National Manufacturing Company, Ottawa, Ont.; McClary Manufacturing Company, Pigott & Bryan, Canada Featherbone Company, C. E. Anderson, London, Ont.; W. E. Welding, Brantford, Ont.; J. J. Turner & Son, Peterborough, Ont.; Oshawa Malleable Iron Company, Oshawa, Ont.; Rosamond Woollen Company, Almonte, Ont.; Shirley & Dietrich, Newlands & Co., Jas. Warnock & Co., Galt, Ont.; Jas. Hall & Co., Brockville, Ont.; Breithaupt Leather Company, Berlin, Ont., and others.

In the building devoted to "Liberal Arts," where musical instruments, optical goods, surgical instruments and appliances, sanitary appliances, etc., the exhibitors will be: O. Newcombe & Co., Whaley, Royce & Co., R. S. Williams &

Co., A. & S. Nordheimer, Joseph Hugell, and Campbell & Son, Toronto, Henry Grant & Son, W. Notman & Son, A. Henderson, and L. H. Williams, Montreal; Dominion Organ and Piano Company, Bowmanville, Ont.; Canadian Office and School Furniture Company, Preston, Ont., and Goderich Organ Company, Goderich, Ont.

In the department of "Agriculture" there will be exhibits of biscuit, condensed milk, alcoholic and malt liquors, canned meats, etc., made by the following manufacturers: Christie Brown & Co., Toronto, Ont.; H. Walker & Sons, Walkerville, Ont.; Carling Brewing and Malting Company, John Labatt, London, Ont.; Thos. Holliday, Guelph, Ont.; British American Starch Company, Brantford, Ont.; J. & J. Livingston, Baden, Ont.; J. W. Windsor, Chas. Gurd & Co., G. H. Grinnam Manufacturing Company, Montreal, Que.; Truro Condensed Milk and Canning Company, Truro, N.S.; John Lindburg, Halifax, N.S.; Edward Drury and Blackwood Bros., Winnipeg, Man.

Among the large exhibitors of agricultural implements are enumerated Massey-Harris Company, Toronto, who represent a combination of five different concerns; the Watson Manufacturing Company, of Ayr, Ont.; John Abell, Toronto, Ont.; George White & Sons, London, Ont.; Coulthard, Scott & Co., Oshawa, Ont.; Cockshutt Plough Company, and the Verity Plough Company, Brantford, Ont.; Tolton Bros., Guelph, Ont.; Sawyer & Massey Company, Hamilton, Ont.; Johnston Patent Plough Share Company, Toronto, Ont.; J. Fleury & Sons, Aurora, Ont., and Halifax Shovel Company, of Halifax, N.S.

In "Machinery Hall" the following will be among the larger exhibitors: Robb Engineering Company, Amherst, N.S.; Kingsley Boiler Company, T. McArdy & Son, St. John, N.B.; John Laurie & Bro., Montreal, Que.; MacGregor, Gourlay & Co., Cant Bros., of Galt, Ont.; Waterous Engine Works, Brantford, Ont.; J. O. Wilson & Co., Picton, Ont.; Central Bridge Company, Peterborough, Ont.; A. R. Williams, John Abell, L. A. Morrison, of Toronto, Ont.; John Bertram & Sons, Dundas, Ont.; London Tool Company, London, Ont., and Ronald Steam Fire Engine Works, Brussels, Ont., with an extended list of smaller exhibits. The display of machinery in the Canadian section will demonstrate the fact that this country has made rapid progress in this important branch of manufacturing industry.

In the department of "Transportation" a large portion of the space allotted to Canada will be occupied by the Canadian Pacific Railway Co., with an engine and a full train of cars, elegantly finished with the latest improvements. It has been arranged that this train shall be shown alongside of a train of English cars to be sent over by the London and North-Western Railway, so that an opportunity may be given for a fair comparison of the relative advantages offered by Canadian and English trains. With the view of showing the means of transport used in the North-West prior to the construction of the railways, there will be shown in proximity to the cars, a dog train and a Red River cart. The Canadian Pacific will also exhibit an elegant model of one of the new line of steamers to Japan and a very fine series of photographs illustrating the scenery along their line of railway. The Grand Trunk Railway has promised a model

of their tunnel under the Detroit River at Sarnia, with a series of photographic views. Space has also been applied for by manufacturers in the several provinces for displays of carriages, sleighs, wagons, carts, boats, canoes, bicycles, etc. Among the larger exhibits are those of the Starr Manufacturing Company, of Halifax, N.S.; Alexis Bancour, Quebec; S. Vessot & Co., Joliette, Que.; Wm. Grey & Sons, and the Chatham Manufacturing Company, of Chatham, Ont.; Adams & Sons, Paris, Ont.; G. W. Robinson, Kingston, Ont.; Louis Massero, Montreal, Que.; J. B. Armstrong Manufacturing Company, Guelph, Ont.; A. A. Archibald, Truro, N.S.; Strickland & Co., Lakeside, Ont.; Herald Bros., Gore's Landing, Ont.; Wm. English Canoe Company, Peterborough, Ont.; Montreal Canoe and Boat Company, Montreal; Car Wheel Company, Montreal, Que.; St. Thomas Car Wheel Company, St. Thomas, Ont.; Henry Mosely, Dartmouth N.S., and others.

EDITORIAL NOTES.

THE Toronto *World* directs the attention of the Dominion Government to the export of natural gas to the United States from the gas fields of Port Colborne, and says that hundreds of thousands of dollars of value is being taken out of Canada, and that not one dollar is coming back, beyond a small consideration paid for the land and the cost of boring the wells.

CANADIAN manufacturers desire cheap fuel oil: Shall they have it? Give it to them. During last year the Cleveland Rolling Mill Company, Cleveland, Ohio, paid more than half as much for fuel as for all the labor, of all descriptions, represented on its pay rolls. Its consumption of coal and coke in 1892 was 441,261 tons, and of fuel oil, 10,535,395 gallons, the total cost for fuel being \$1,180,000. The total pay rolls in the same time were \$2,235,992.

THE annual meeting of the Canadian Press Association will be held on Thursday and Friday, February 9th and 10th, in Toronto, in the Board of Trade building. The programme promises one of the most interesting meetings ever held by the Association. The aim has been to make this a working meeting. There will be three business sessions: the opening one on Thursday afternoon; the second, Friday morning; and the third, Friday afternoon. On Thursday evening the annual dinner will be held.

THE amount of sugar produced in the United States during the fiscal year ending June 30, 1892, on which the bounty was paid, was as follows: Cane sugar, 364,812,411 pounds; beet sugar, 12,004,838 pounds; sorghum sugar, 1,136,086 pounds, and maple sugar, 144,882 pounds, making a total production of 378,115,217 pounds. Bounty was paid as follows: Cane sugar, \$7,077,316; beet sugar, \$240,093; sorghum sugar, \$22,167; maple sugar, \$2,465; total, \$7,342,077. Of this amount \$6,882,589 went to Louisiana.

AT the recent annual meeting of the Liberal-Conservative party of East and Centre Grey, held at Markdale, Ont., the following resolution was adopted: Resolved, "That it is the opinion of this meeting, that the Government of Canada should put an export duty on all pine and spruce saw-logs going out

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of the country" It required a long time for the Grey politicians to find out what was going on, but this resolution shows that they are now acting on the advice so frequently given in this journal. The duty on logs must be imposed.

The annual tonnage entries and clearances of the great seaports of the world, for 1892, were:—New York, 11,051,145 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,176,200 tons; London, 19,245,117 tons. The tonnage passing through Detroit river during 234 days of navigation in 1892, amounted to 36,203,600 tons—10,000,000 tons more than the entries and clearances of all the seaports in the United States, and 3,000,000 tons more than the combined foreign and coastwise shipping of Liverpool and London. Comparing the St. Mary's Falls and Suez Canal traffic, the number of vessels passing through the St. Mary's Falls canal in 1890, during the 234 days of navigation, was 10,557; tonnage, net registered, 8,454,435. Number of vessels passing through the Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014.

Toilettes, for February, which is now before us, is a most beautiful monthly magazine, published in the interest of the ladies. It contains plates and illustrations of all the latest New York, London, Paris and Berlin fashions, with accurate descriptions, by which ladies may select their styles, and have their dresses made accordingly. And not only for grown persons, but for misses, children and infants. Price, \$1.50 per year, by *Toilettes Publishing Co.*, 126 West 23rd Street, New York city.

Good Housekeeping presents as a frontispiece for the February number a happy winter scene, entitled, "Seven Sleds Full." Helena Rowe discusses shopping in the dry goods line, with special reference to the current fashions; there is a very interesting "Story of Dwight and the Keady Cure," that "scientific marvel of the age;" the initial number of a new series of papers devoted to "Everyday Etiquette," in the home, on the street, in the business office and aboard the public conveyance; "What to do with My Lady's House," deals with the sleeping-room, its fitting and adorning; while the entire body of the generous magazine is filled with timely and interesting matter. Published at \$2.00 a year by Clark W. Bryan Company, Springfield, Mass.

Outing for February is a beautifully illustrated number, filled with breezy, seasonable descriptions of sports in many lands. The contents are as follows: "Ski-Running," by W. S. Harwood; "Which Miss Charteris?" by C. G. Rogers; "A Comedy of Counterplots," by Edgar Fawcett; "The Wild Hog of Louisiana," by Geo. Reno; "Sparring Through the Ice," by Ed. W. Sandys; "A Blank Day," by Mildred Darby; "A Day with Quail in North Carolina," by Claude Prescott; "Roping Elk in the Rockies," by H. S. Blanchard; "Lenz's Tour Awheel;" "Bicycling on Pablo Beach," by H. I. Greene; "Harry's Career at Yale" (continued), by John Seymour Wood; "Through Darkest America," by Mrs. K. White; "Held Up," by Myron B. Gibson; "Militia and National Guard of Ohio," by Lieut. W. H. C. Bowen, U.S.A.; "Ice Yachting," by Charles Ledyard Norton; and the usual editorials, poems, records, etc.

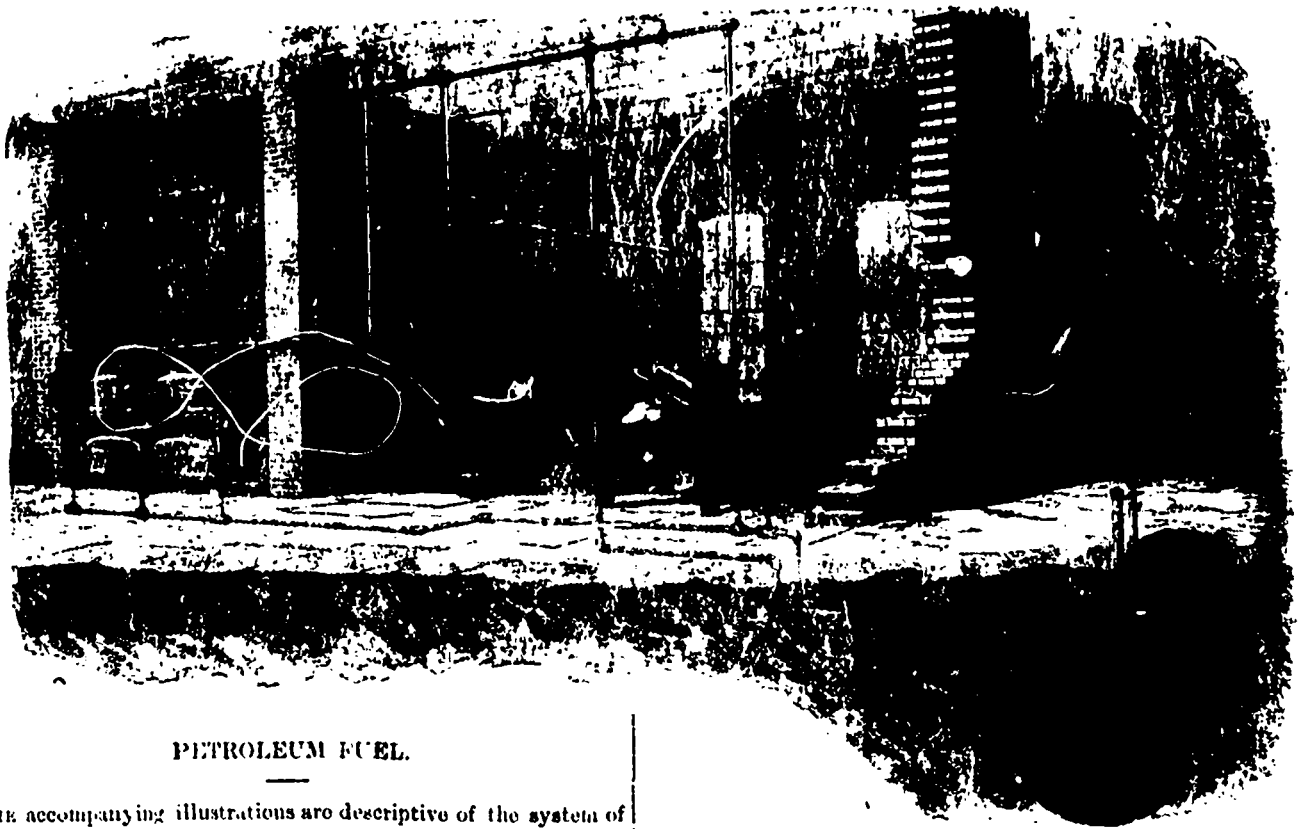
The February *Popular Science Monthly* opens with an article on "The Glass Industry," by Prof. C. Hanford Henderson, in which the story of the industry during colonial times in America is told. Prof. Spencer Trotter contributes a chatty account of the "Birds of the Grass Lands," with illustrations. M. Paul Topinard sketches the natural history of man, under the title, "Man in Nature." Prof. E. P. Evans returns to the attractive subject of animal intelligence, describing "The Aesthetic Sense and Religious Sentiment in Animals." M. Berthelot writes on "Science as a Factor in Agriculture." "The Habits of the Garter Snake" are told in an illustrated article by Alfred C. Mayer. There is a paper on "Ghost Worship and Tree Worship," by Grant Allen, who gives much evidence to show that the latter is derived from the former. The subject of "Number Forms," illustrating some of

the curious operations of the human mind, is treated by Prof. G. T. W. Patrick. Other articles are "Science Teaching," by Frederick Guthrie; "The Trepang" (illustrated); "Prehistoric Prejudging;" "The New Star in the Milky Way;" "The Discovery of the Sexuality of Plants;" and a "Sketch of Robert Boyle," with Portrait. New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

The February *Wide Awake* has a delightful reminder of Tennyson, in Carroll Burton's "Child-Life at Farringford," described by one who actually visited and played with the Tennyson boys. The same number also contains the second of Frederick A. Ober's Columbus articles—"From Cordova to Cathay"—called "At the New World's Portal." Norman W. Bingham, jr., furnishes the "Wide Awake Athletics" article, which is on "Sprinting and Hurdling." H. E. de Ramsay writes of little Queen Wilhelmina of Holland as "The Flower of her Race." Marlon Downing tells about "Conch Pearls," and "Rae," the little Colorado girl, has another series of letters on "Winter Ranch Life." A splendid story by Alexander Ritchie is "The Pilot of the Nantucket Shoals." It is finely illustrated by Pollak. Gertrude Smith has a capital Western story, "The Little Taylors Alone"; Abby M. Ganuett has a homespun story, "Hetty's Red Gown," and Anna F. Burnham has a country "school-ma'am's" story, "In the 'Pratus-Box.'" The serials by Stoddard, Molly Elliott Seawell and Mrs. Junnes, are strong and absorbing; the poetry of the number is full of fire, pathos, humor and jollity, and the departments are, as always, replete with interest and information. Price 20 cents a number, \$2.40 a year. On sale at news-stands or sent postpaid on receipt of price, by D. Lothrop Company, publishers, Boston.

There is a sparkle in the *Ladies' Home Journal* that appeals with wonderful attractiveness to a reader, and this is especially true of its February issue. Mr. Howells has, perhaps, never been brighter in anything he has done than he is in his "Coast of Bohemia," and his glimpses of girl-life in a great city. Mrs. Burton Harrison tells girls a great deal they will like to know of the social code of opera, theatre and concert, in the fourth of her popular series on "The Well-Bred Girl in Society." Octave Thauet has a very happy article addressed to wives, on "That Man: Your Husband," which Vera Bernardiere supplements with interesting glimpses of the results of foreign marriages made by American girls. Ella Wheeler Wilcox tells vigorously who, in her estimation, are the "Destroyers of Domestic Edens," while Rev. T. De Witt Talmage discusses women's tendency for curiosity in an article on "The Curiosity of Eve." Mamie Dickens' reminiscences, "My Father as I Recall Him," deepen an interest as she tells of her great father's love for birds, sports and outdoor life. Eugene Field has a beautiful poem, "My Valentino," addressed to his wife, while Mrs. Bayard Taylor's portrait is for the first time seen in print. Palmer Cox has his inimitable "Brownies" in Ireland on their trip around the world, while the domestic machinery, in all its phases, is oiled by suggestions from Maria Parloa. In fact, there is everything the *Ladies' Home Journal* to win it the approval of womankind. One dollar per year. Published by the Curtis Publishing Company, of Philadelphia.

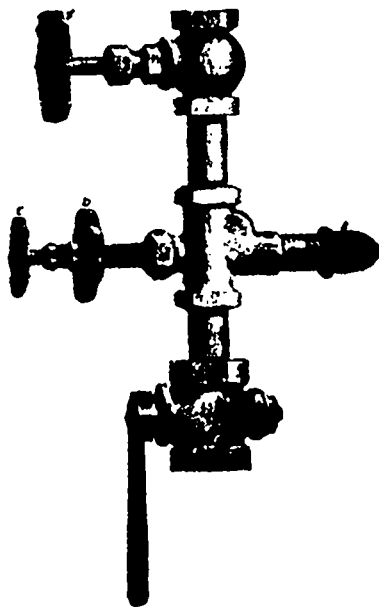
Scribner's Magazine for February has a number of illustrated articles on interesting bits of foreign lands. Dr. Henry Van Dyke writes an unconventional travel sketch, "From Venice to the Gros-Vendiger"—two places which he frankly says have no connection in logic or in fact—the one, the Queen of the Adriatic, and the other, a big, snow-clad mountain in the Tyrol. From a far different outlook, Mr. and Mrs. Blashfield describe "Florence and the Florentine Artist," with pen and pencil—the pictures of Mr. Blashfield giving the artistic atmosphere of that most suggestive city. From the point of view of the decorator, Frederic Crowninshield concludes his impressions of modern Rome, with illustrations of its unique beauties. Alfred Jerome Weston gives the color and spirit of Tangier, in his sketch entitled, "From Spanish Light to Moorish Shadow." Another paper by the late Marquis de Chaulbrun (whose pen-picture of Lincoln was conspicuous in the January number), gives his vivid "Personal Recollections of Charles Sumner," with whom he was well acquainted from 1865 to Mr. Sumner's death in 1874. In fiction this issue is particularly rich, containing three complete short stories, and the second instalment of Mrs. Burnett's charming serial. Octave Thauet has the sixth and last of her group of "Stories of a Western Town," this one being the love-story of "Harry Lossing," who has appeared from time to time in the other sketches. The readers of this group of stories will be glad to know that, with Mr. Frost's admirable illustrations, they are to be published soon in book form. Lloyd Osbourne (joint author with Mr. Stevenson of "The Wrecker"), contributes a vigorous military sketch entitled "How the Battle was Lost."



PETROLEUM FUEL.

The accompanying illustrations are descriptive of the system of the Aerated Fuel Company for burning crude petroleum and fuel oil for fuel for making steam in boilers and for manufacturing purposes generally.

The large picture represents a small plant for burning crude petroleum. G. G. is an air compressor. The pipe K conveys the



compressed air to the oil in the tank D, thus forcing the oil, through the pipe J, to the burners A A A, where it is met by the air carried to the burners by the pipes X X. No steam is mixed with the air and oil. The main pipe K may be placed under ground, like the main oil pipe J, if desired.

The air compressor has connected with it an air regulator, by means of which the pressure is kept the same at all times, whether one or one hundred burners are in use, and no more steam is taken than is necessary for the burners in use. The air compressor maintains a steady pressure of from 10 to 20 lbs. to the square inch, according to the class of work to be done, on the oil, and forces it into the fire-box in a fine spray. If the breaking of the machinery, or any other

cause, stops the air pressure, the fire instantly goes out, thus preventing any fire, or flooding the furnace with oil. The compressor may be run by belt, if preferred.

The fire is under perfect control at all times, and can be adjusted to any degree of heat, by means of the oil and air valves. The burners may be placed in any position, so as to throw the fire horizontally, up from below or down from above, and in no case will the oil run to the fire, as the oil supply tank is always kept below the level of the fire, and the oil can reach the fire only when forced to it by the air pressure.

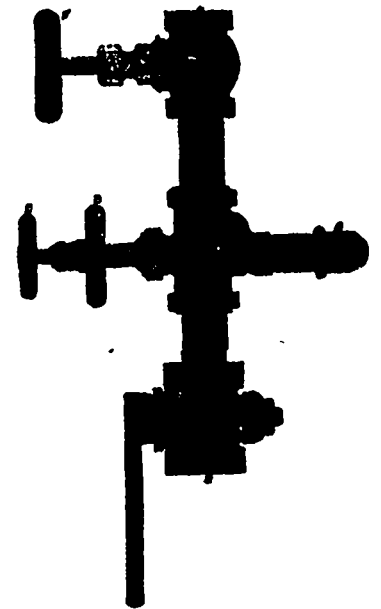
Where the system is used on a large scale, it is usually desirable to employ an automatic oil pump and tank, although this is not necessary. From the main

storage-tank to the ground the oil is raised in small quantities by this steam or belt-actuated oil-pump, which is automatically controlled by a float-valve in the small tank under the pump. When the oil reaches the "oil level" in this tank, the pump stops until enough oil has been used by the burners to lower the oil in the tank sufficiently to start the pump again. This is not a gravity system, that is, the oil is at no point higher than at the point of combustion; and it is therefore particularly acceptable to the insurance companies.

Among the present uses of this system are: all kinds of iron and steel forging, tempering, welding, annealing, etc.; in glass works, for furnaces, glory holes, lears and ovens; for generating steam; for burning lime, cement, sewer pipe, terracotta, brick, etc.; for heating chemicals and asphalt, for japaning; for oxidizing lead; for heating retorts in gas works; for drying sand, salt, etc.; for singeing cloth, etc.

Its chief advantages over coal and wood may be summed up as a perfectly even fire, at all times under complete control; any desired degree of heat; economy in labor and fuel; and no increase in insurance rates.

Of the Aerated Fuel Company plant at the U. S. Navy Yard, Commander O'Neil writes, April 22nd, 1892:—"The plant has been most satisfactory; has not required any repairs; is easily cared for, and fully answers the purpose for which it is used. With ordinary care there is no danger attending the use of liquid fuel, and with proper care of the pipes and pump no odor is perceptible."



The great success which is attending the use of fuel oil is rapidly revolutionizing the metal industries of the United States. There are hundreds, perhaps thousands, of industrial works there which find it exceedingly profitable to use; and the unanimous opinion seems to be that while the saving in cost of fuel as compared with coal is a very strong argument in its favor; another very important feature of it consists in the ease, facility and directness with which the heat may be applied just where and when it is wanted.

Mr. Chilion Jones, Gananoque, Ont., is agent in Canada for this system; and fuller particulars concerning it than are here given may be obtained from him.

= Wants =

ADVERTISING IN THIS COLUMN FREE.

Any subscriber to or advertiser in THE CANADIAN MANUFACTURER who may desire to purchase any sort of machine or machinery; or any sort of mill, factory, workshop, foundry or other supplies; or any materials for manufacturing purposes, and will notify us of his wants, the same will be published in a prominent department of this paper, and his name and address will be furnished to any subscriber or advertiser who may desire to supply the want, for which services no charge whatever will be made.

Stationary and marine engineers with proper certificates, and engineers competent to take charge of electric plants, and first-class machinists and expert electrical workmen desiring situations, are invited to make their wants known in this column. No charge will be made for putting applicants in communication with employers who may desire their services. Our friends are cordially invited to avail themselves of this invitation.

In answering refer to number of want Address all communications to CANADIAN MANUFACTURER, Toronto.

WANTED—New or second-hand 20-inch gear cutting machine. Must be in perfect order. Address No. 1, care CANADIAN MANUFACTURER.

WANTED—Clothing manufacturer wants machine for making covered buttons, with cutters, etc., complete. Address No. 2, care CANADIAN MANUFACTURER.

WANTED—12-inch gear cutter in good working order. Address No. 3, CANADIAN MANUFACTURER.

WANTED—Stationary engineer, with first-class certificate, wants situation. Best references. Competent to take charge of electric plant. Address No. 4, care CANADIAN MANUFACTURER.

WANTED—Boss finisher on any kind of men's goods wants situation in woolen mill. References. Address No. 5, CANADIAN MANUFACTURER.

WANTED—Stationary engineer, with second-class certificate, wants situation. References. Address No. 6, CANADIAN MANUFACTURER.

WANTED—A selling agent for special machinery. Good commission to the right man. Address No. 7, CANADIAN MANUFACTURER.

WANTED—Punching Machine—second-hand 16-inch throat, to punch hole 2-inch diameter, in 3/8-inch steel plate. Must be in good working order. Address No. 8, CANADIAN MANUFACTURER.

ALPHONSE DAUDET has sent his portrait, with a complimentary autograph letter, to *The Illustrated World's Fair*. This appears in the January issue. The Austrian Commission furnishes the portrait of the Archduchess Maria Theresia, patroness of the Austrian Board of Lady Managers. A magnificent picture of the Fair, as it looks from afar out in Lake Michigan, is a novelty, and a close and large view of Martiny's "Four Races"—the groups of statuary that stand on the corners of the Agricultural Building, reveals their great beauty. The pictures are all large, and are never falsified, figures being shown with the candor of photography. Jewell N. Halligan, General Manager, McVicker's Theatre, Chicago. \$2.50 a year; twenty-five cents a copy. Send for it. Dedicatory edition, with list of exhibitors (8,000), 116 pages, \$1.

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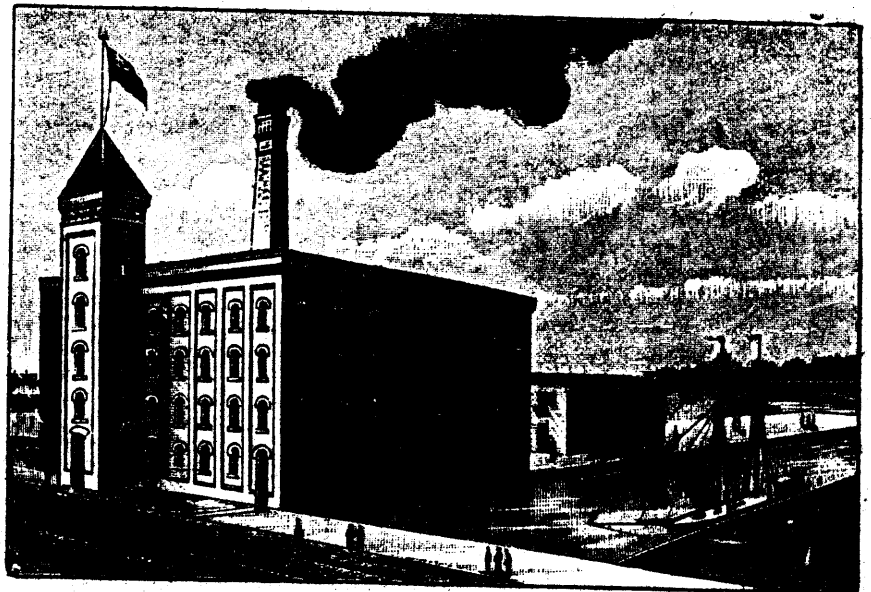
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INVENTIONS.



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

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office from January 3 to January 17, 1893, inclusive.

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

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

MECHANICAL.

- 41,442 Bean harvester and weed cutter, W. Carver, January 3rd.
- 41,443 Ironing machine, J. H. Wendell, January 3rd.
- 41,444 Sawing machine, M. A. Harreld, January 3rd.
- 41,446 Roasting peanuts, J. C. F. Atsalt, January 4th.
- 41,448 Rocking chair, R. R. Coon, January 4th.
- 41,450 Cash indicator, J. Sharpe, January 4th.
- 41,451 Press for molding glass insulators, L. B. Gray, January 4th.
- 41,452 Dumping wagon, S. J. Forsgard, January 4th.
- 41,453 Coupler head for air brake hose, S. M. Beery and J. H. Brown, January 4th.
- 41,455 Railway rail, P. H. Dudley, January 9th.
- 41,456 Reducing crude peat to fuel, The Ontario Peat Fuel Co. (Ltd.), January 9th.
- 41,457 Treadle apparatus for driving sewing and other machines, J. L. Sampson, January 9th.
- 41,458 Printing press attachment, E. Meier and L. Weiss, January 9th.
- 41,459 Rolling plate or sheet glass, J. W. Bonta, January 9th.
- 41,460 Horse attaching device for lawn mowers, J. V. Rowlett, January 9th.
- 41,461 Sectional horse shoe, C. H. Doran, January 9th.
- 41,462 Car coupling, G. C. Harlin, January 9th.
- 41,463 Turning bags, L. E. Barbeau, January 9th.
- 41,464 Valve operating mechanism, J. W. Ogden, January 9th.
- 41,466 Rotary engine, pump and blower, A. F. G. Brown, January 9th.
- 41,467 Power filling machine, J. J. Chavasse, January 9th.
- 41,468 Spring setting machine, E. Cliff, January 9th.
- 41,469 Semi-elliptic spring, E. Cliff, January 9th.
- 41,470 Hoof parer and nail clincher, N. Michener, January 9th.
- 41,471 Sprigging, nailing, rivetting and pegging machine used in the manufacture of coverings for the feet, and other leather work in general, T. Gare, January 9th.
- 41,472 Purifying brine, C. G. Collins, January 9th.
- 41,473 Making or laying drains, O. B. H. Hauneborg, January 9th.
- 41,474 Sled rack, W. A. Downey, January 9th.
- 41,475 Railroad track laying machine, G. Roberts, January 9th.
- 41,476 Illuminating tile, J. Jacobs, January 9th.
- 41,477 Illuminating tile, J. Jacobs, January 9th.
- 41,478 Illuminating tile, J. Jacobs, January 9th.

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PATENTS

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Counsel Work undertaken in Patent Causes.

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

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

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G. de G. LANGUEDOC,

PATENT SOLICITOR,

CIVIL ENGINEER AND ARCHITECT.

Associate Member Can. Soc. Civil Engs., Member of the Soc. of Archts. of the P.Q.

Room 7, (3rd floor), 180 St. James St., MONTREAL.

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

EXPERT and
SOLICITOR

PATENTS,

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

- 41,479 Dress shield, E. E. Pray, January 9th.
- 41,481 Car brake, S. B. Wortmann, January 9th.
- 41,483 Toe weight, C. W. Van Etten, January 9th.
- 41,485 Knitting machine, J. Bennor, January 10th.
- 41,486 Bottle cleaner and washer, O. Eick, January 10th.
- 41,487 Pump for raising water near railroads, C. Hodgson, January 10th.
- 41,488 Wheel plow, E. Stock, January 10th.
- 41,489 Travelling step ladder, J. E. Gordon, January 10th.
- 41,490 Pipe or reed organ, J. B. Hamilton, January 10th.
- 41,491 Uncoupling cars, S. B. Wortmann, January 10th.

- 41,493 Hay rack loader and unloader, F. G. Anderson, January 10th.
- 41,494 Folding bed, J. D. Eunes, January 10th.
- 41,495 Game apparatus, J. A. Scott, January 10th.
- 41,496 Brake mechanism, G. M. Brill, January 10th.
- 41,497 Mutilating the threads of bolts, S. Rufer, January 11th.
- 41,498 Distributing fungus and insecticide powder, C. H. Joosten, January 11th.
- 41,499 Rolling plate or sheet glass, J. W. Bonta, January 11th.
- 41,500 Portable bill and letter file and perforating appliance, J. W. Grantland, January 11th.
- 41,501 Paper pulp digester, C. Curtis and N. M. Jones, January 11th.
- 41,502 Horse poke, W. A. Boyd, January 11th.
- 41,503 Governor for hydraulic motor, J. Clement, January 11th.
- 41,505 Wardrobe bed, D. D. Cook, January 11th.
- 41,506 Spark arrester, N. W. Spencer, January 11th.
- 41,507 Cement, C. Tomkins, January 11th.
- 41,508 Turning the switch-rail of switches in railroads, J. D. Stone, January 11th.
- 41,509 Automatic car-brake and adjuster or take-up, F. & J. W. Cyr, January 11th.
- 41,510 Autographic register, S. D. Cochran, January 11th.
- 41,512 Folding framing square, T. S. Morse, January 11th.
- 41,513 Wood cutting machine, W. Merritt, January 11th.
- 41,514 Fastening down carpets, Miss A. L. Colcleugh, January 11th.
- 41,515 Typewriting machine, Philadelphia Typewriter Co., January 11th.
- 41,516 Beverage to be known as condensed tea, The Truro Condensed Milk & Canning Co., January 11th.
- 41,517 Fire escape, L. A. Haight and W. C. Haynes, January 11th.
- 41,518 Safety envelope, W. McDonnell, January 11th.
- 41,519 Air brake for railway trains, H. R. Masou, January 11th.
- 41,520 Automatic sewer flushing device, W. D. Van Duzen, January 11th.
- 41,521 Strap or trunk hinge and in cutting blanks to make the same, J. G. Mallory, January 11th.
- 41,522 Car coupler, Eureka Coupler & Buffer Co., January 11th.
- 41,523 Gunpowder, C. H. Curtis, January 11th.
- 41,524 Gunpowder, C. H. Curtis, January 11th.
- 41,525 Roasting ores, L. Bennelinaus and G. W. Silcox, January 11th.
- 41,526 Car coupler, G. W. Brady and J. E. Wade, January 11th.
- 41,527 Stock salt-feeder, J. Hurdle, January 11th.
- 41,528 Watch escapement, H. Park, January 12th.
- 41,529 Generating hydrogen gas for motive power, W. & T. Hawkins, January 12th.
- 41,530, Grain scouring machine, P. Provost, January 12th.
- 41,531 Hot air generator, J. Stacey, January 12th.
- 43,532 Untinning the waste of tin plates, H. C. Harmsen, January 12th.
- 41,533 Snow plow, A. Gardiner, January 12th.
- 41,534 Butter package, C. L. Kneeland, January 12th.
- 41,535 Law tennis court marker, H. Reichvein, January 12th.
- 41,536 Cotton harvester, G. Beekman, January 12th.
- 41,537 Flue cleaner, P. A. Burgess and W. Kernaghan, January 12th.
- 41,538 Nut lock, J. W. Pugh and S. B. Hopkins, January 12th.
- 41,540 Grand stand, P. P. Cuplin, January 12th.
- 41,541 Accident preventative device for street cars, P. Meegan, January 12th.
- 41,542 Liquid dispensing apparatus, W. M. Fowler, January 12th.
- 41,543 Churn, D. H. Parker, January 12th.
- 41,544 Gate, A. Peterson, January 12th.
- 41,545 Saddle for velocipede, H. Cutler, January 12th.
- 41,546 Piano plate frame, J. B. Mitchel, January 12th.
- 41,547 Extension key for transposing music, J. Bracken and J. Kennedy, January 12th.
- 41,548 Marine engine, Economy Engine & Machine Co., January 12th.
- 41,549 Coin controlled machine, W. M. Ducker and H. D. Dumont, January 12th.
- 41,550 Lubricating compound, J. B. Wallace, et al, January 13th.
- 41,551 Nut lock, J. McDonald, Jr., January 13th.
- 41,552 Driver for lath or planing machine, A. E. Brown, January 13th.
- 41,553 Separating grain and dust or stine from air laden therewith, F. E. Duckham, January 13th.
- 41,554 Spring rocking chair, O. H. Ordway, January 13th.
- 41,556 Device for drying grain, H. T. Hopkins and E. M. Parmelee, January 13th.
- 41,557 Axle journal and wrist pin box, W. L. Eveland and H. Stephens, January 13th.
- 41,558 Machine for trimming the upper of boots and shoes, Boston Footwear Machine Co., January 12th.
- 41,559 Centrifugal separator, C. Von Bechtolsheim, January 13th.
- 41,560 Furnace, A. Backus, Jr., January 13th.
- 41,561 Fly trap, C. Shleacon, January 13th.
- 41,562 Brake beam for railway cars, J. Green, January 13th.
- 41,563 Advertising programme and bill of fare holder, J. F. O'Brien, January 13th.
- 41,564 Washing machine, J. A. and A. M. Weston, January 13th.
- 41,565 Nut lock, C. Swayze, January 13th.
- 41,566 Toy, W. P. Shattuck, January 13th.
- 41,567 Electrolytic apparatus, T. Craney, January 13th.
- 41,568 Rack for axle washers, etc., T. Gingras, January 13th.
- 41,569 Safety attachment for car trucks, L. F. Fisher, January 13th.
- 41,570 Loading and piling machine, G. S. Kaune, January 13th.
- 41,571 Steam engine, J. V. Rice jr., January 13th.
- 41,572 Car coupling, W. W. Smith, January 13th.
- 41,574 Picker for cotton harvesters, G. Beekman, January 13th.
- 41,575 Spring motor, D. W. Dart, January 14th.
- 41,576 Rotary fluid pressure engines, applicable also as pumps, E. Towlson, January 14th.
- 41,577 Railroad track laying machine, G. Roberts, January 14th.
- 41,578 Driving mechanism, A. E. Brown, January 14th.
- 41,579 Running gear, W. Bonnar, January 14th.
- 41,580 Holder for the guards of carving forks, W. L. Foster, January 14th.
- 41,581 Wrench, A. Boehmer, January 14th.
- 41,582 Chain Machine, F. Egge, January 14th.
- 41,583 Hot air furnace, A. D. Martin, January 14th.
- 41,584 Actuating lifts elevators and similar machinery, A. W. D. Bell and J. W. Welsby, January 14th.
- 41,585 Car coupling, LaBurt Automatic Electric Block Signal System and Car Coupler Co., January 14th.
- 41,586 Embedding wire in glass, The Wire Glass Co., January 14th.
- 41,587 Embedding wire in glass, The Wire Glass Co., January 14th.
- 41,588 Steam boiler, H. F. Cook, et al, January 14th.
- 41,589 Motor, J. Sands, et al, January 14th.
- 41,590 Automatically coupling railway and street cars, H. Bunker and J. H. McKeggie, January 14th.
- 41,591 Fruit slicer, F. B. Smith, January 14th.
- 41,592 Salt and method of manufacturing same, A. W. Lawton, et al, January 14th.
- 41,593 Rotary magnetic separator, E. Wiman, January 14th.
- 41,594 Children's safety skates, C. H. Smith and A. Mathews, January 14th.
- 41,595 Elbow for facilitating the cleaning of stove pipes, O. G. Cranston and W. F. Richards, January 14th.
- 41,596 Gas delivering apparatus, J. Taylor, January 14th.
- 41,597 Anti-friction support for cars, L. K. Jewett, January 14th.
- 41,598 Anti-friction bearing, L. K. Jewett, January 14th.
- 41,599 Side bearing for car bodies, L. K. Jewett, January 14th.

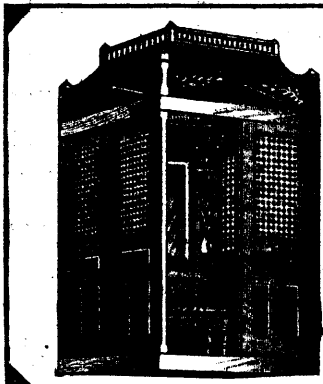
- 41,600 Manufacture of white lead, A. Houman and V. Vulliez, January 16th.
- 41,601 Production of coke, F. J. Jones, January 16th.
- 41,603 Grain drill, C. E. Patric, January 16th.
- 41,604 Spring hinge, E. C. Stearns & Co., January 16th.
- 41,605 Vehicle spring, H. Brooks, January 16th.
- 41,606 Mail bag, C. P. Tatro, January 16th.
- 41,608 Brake for baby carriages, W. Wilson, January 16th.
- 41,609 Band-saw attachment, J. H. Mead, January 16th.
- 41,610 Photographic camera, J. T. Walker, January 16th.
- 41,611 Multiple saw frame, A. Jeausaunse, January 16th.
- 41,612 Feed water heater, N. Chute, January 16th.
- 41,614 Setting type, J. A. Kay and R. A. V. Rae, January 16th.
- 41,615 Printing photographs, R. J. Wynkoop and J. M. Kemp, January 16th.
- 41,616 Operating the stocks of percussive drills and other like apparatus, W. A. G. Birkin, January 16th.
- 41,619 Mounting for motors of electric cars, H. S. Short, January 16th.
- 41,621 Method of feeding boilers, N. Clute, January 16th.
- 41,622 Vehicle spring, N. A. Newton, January 16th.
- 41,625 Brick machine, B. C. White and J. A. Byrd, January 16th.
- 41,626 Wood-working machine, F. S. Madison, et al, January 16th.
- 41,627 Propelling and steering apparatus for ships or vessels, J. I. Thornycroft, January 16th.
- 41,628 Sewerage apparatus, W. S. West, January 16th.
- 41,629 Magnetic pen holder, F. H. Brown, January 16th.
- 41,630 Feeding mechanism for carding engine, J. F. Geb, January 16th.
- 41,631 Toy and advertising device, Keane Novelty Co., January 16th.
- 41,632 Propelling apparatus for vessels, J. Wirth, January 16th.
- 41,633 Rotary snow plow, E. Leslie, January 16th.
- 41,634 Hose reel, W. T. Y. Schenck, January 16th.
- 41,635 Pivotal cross beam spring tooth cultivator, W. Hewitt, January 16th.
- 41,636 Fire escape, N. Bouvier, January 16th.
- 41,637 Sewing machine, M. C. Lisle and M. A. Pierce, January 16th.
- 41,638 Pump, W. McLennan, January 16th.
- 41,639 Threading and cutting off pipe, A. W. Cash, January 16th.
- 41,640 Gas regulator, M. O'Govman, January 16th.
- 41,641 Rail supporter, E. G. Patterson, January 16th.
- 41,642 Tamping railway ties, E. G. Patterson, January 16th.
- 41,643 Harness, J. F. Welcome, January 16th.
- 41,644 Typewriting machine, Daugherty Typewriter Co., January 17th.
- 41,645 Photograph holder, G. F. Bambridge, January 17th.
- 41,646 Machine plow, J. Carpenter, January 17th.
- 41,647 Liquid measuring vessel, C. A. White, January 17th.
- 41,649 Sign stencilling machine, G. H. Tietzen, January 17th.
- 41,650 Grain cleaner, A. Hernè, January 17th.
- 41,651 Manufacturing wire fence strands, E. F. Hathaway, Jan. 17th.
- 41,652 Furnace, J. N. Johnson and J. Moran, January 17th.
- 41,653 Ball bearing, P. Dansereau, January 17th.
- 41,654 Railroad spike, S. H. Bracey, January 17th.
- 41,655 Rotary engine, H. Raith, January 17th.
- 41,656 Manufacturing rectangular meshed wire netting, A. N. Pearson and R. Penn, January 17th.
- 41,657 Cooking utensil, A. R. Isaacs, January 17th.
- 41,658 Axle bearing, H. J. LaForce, January 17th.
- 41,659 Manufacture of bobbins, tool handles, etc., from paper, L. Münsterberg, January 17th.
- 41,660 Draft rigging for car coupler, J. A. Ninson, January 17th.
- 41,661 Feed regulator, W. Gribben and J. M. Gaige, January 17th.
- 41,662 Purifying, sterilizing and filtering drinking water, S. L. West, January 17th.
- 41,663 Spring board for feeling timber and sawing upper end of piles after they have been driven, J. B. Brickley, January 17th.
- 41,664 Automatic coupling for railway cars, C. A. Pooley, January 17th.
- 41,665 Paper pulp digester, C. Curtis and N. M. Jones, January 17th.

ELECTRICAL.

- 41,447 Electric lighting, G. J. & G. J. T. J. Parfitt, January 4th.
- 41,449 Motor, E. C. Wheat, January 4th.
- 41,454 Telegraphic apparatus, J. A. Parker, January 4th.
- 41,465 Carbon holder for arc lamps, J. J. Wood, January 9th.
- 41,482 Electric heating for electric railway systems, M. W. Dewey, January 9th.
- 41,484 Electric battery, D. M. Lamb, January 10th.
- 41,492 Electric railway car, M. W. Dewey, January 10th.
- 41,504 Diaphragm for electrolytic cell, E. A. Le Sueur, January 11th.
- 41,539 Electric motor or dynamo electric machine, R. Landell and E. H. Johnson, January 12th.
- 41,555 Operating ammeters and other electrical apparatus, H. H. Pilkington and R. S. White, January 13th.
- 41,573 Automatic determining device for phonographs, T. A. Edison, January 13th.
- 41,602 Electric arc lamp, A. W. Brown, January 16th.
- 41,607 Storage battery, G. A. Washburn, January 16th.
- 41,617 Dynamo electric machine, W. M. Morley, January 16th.
- 41,618 Electric transformer, W. M. Morley, January 16th.
- 41,620 Cars propelled by electricity, S. H. Short, January 16th.
- 41,623 Electric railway, J. F. Munsie, January 16th.
- 41,624 Electric railway, J. F. Munsie, January 16th.

SCIENTIFIC PROCESSES.

- 41,445 Disinfecting, deodorizing and preservative compound, F. G. Smith, jr., January 4th.
- 41,480 Extraction of gold and silver from ores or compounds containing the same, H. Parkes and J. C. Montgomerie, January 9th.
- 41,511 Remedy for cancerous sores, A. Adamkiewicz, January 11th.
- 41,613 Carbonating beer, Universal Carbonating Co., January 16th.
- 41,648 Forming soluble phosphates, J. E. Stead and H. M. Howe, January 17th.



ELEVATORS

FENSOM ELEVATOR
WORKS
52-54-56 DUKE ST
TORONTO.

ELECTRIC HYDRAULIC
STEAM & HAND-POWER
PASSENGER & GOODS
ELEVATORS. DUMB WAITERS

Captains of Industry.

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

MR. ALEXANDER CULLON has just ordered a large b'ot cutter from H. W. Petrie, Toronto.

MESSRS. DICK, RIDOUT & Co., this city, have purchased a 40 h.p. boiler from H. W. Petrie, Toronto.

MR. HOWELL, Jerseyville, Ont., has purchased an engine to run his saw mill from H. W. Petrie, Toronto.

MESSRS. CHAS. E. PRESTON & Co., lithographers, Toronto, will enlarge their plant and add more presses.

MR. H. W. PETRIE, Toronto, has sold a new engine to Mr. Jos. Chew, Chelmsford, Ont., to run his mills.

THE Citizens Light & Power Co., Cote St. Paul, have put in two new boilers made by W. C. White, Montreal.

MR. H. W. PETRIE, Toronto, has supplied the Woolsey Milling Company with a large portable buhr chopper.

MESSRS. L. O'VIDAL & SON, Quebec, has been supplied with a broom handle lathe by H. W. Petrie, Toronto.

A PORTABLE boiler has been supplied by H. W. Petrie, Toronto, to the Toronto Junction water-works department.

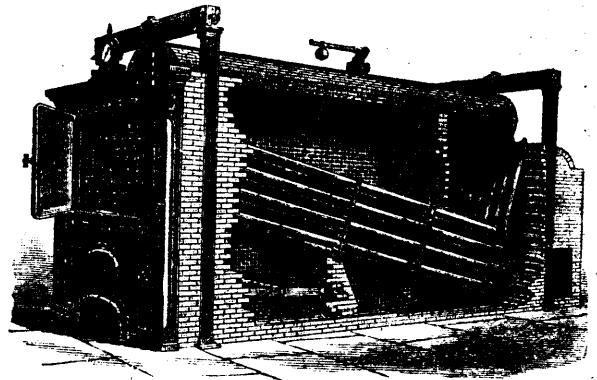
MR. J. WARREN FREURE, Port Rowan, Ont., has given the order for a 30-inch portable buhr chopper to H. W. Petrie, Toronto.

THE Royal Electric Light Co., Montreal, have placed another 150 h.p. boiler in their eastern station. It was made by W. C. White.

MR. R. C. SCOTT, Highgate, Ont., has bought a new engine, dynamo and electric supplies for his mill from H. W. Petrie, Toronto.

MR. H. W. PETRIE, dealer in machinery, Toronto, has shipped a large gap lathe, a'so marine engine, to the Napanee Paper Mills Company.

LETTERS patent have been issued incorporating The James Morrison Brass Manufacturing Company, Toronto, with a capital stock of \$300,000.



The **Babcock & Wilcox Co.**

Water Tube Steam Boilers

Now being manufactured in Canada.

Agents for the Dominion

A. HOLDEN & CO.

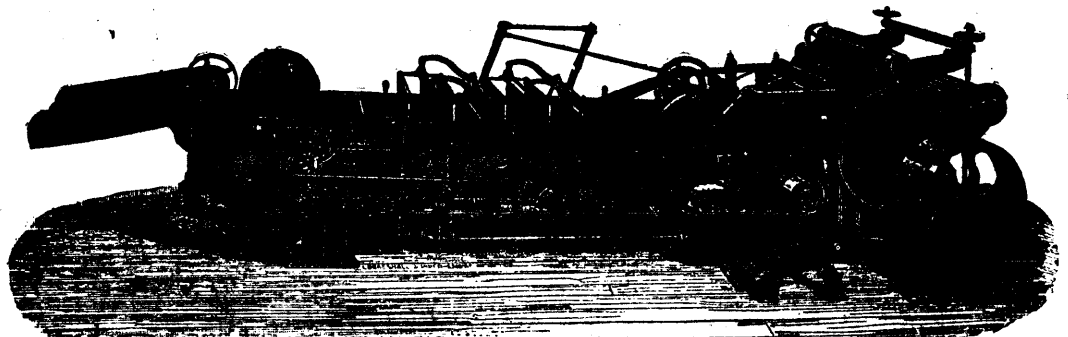
Waddell Building.

30 St. John St., Montreal.

Send for book "STEAM" free on application.

IMPROVED WOOL WASHER

BUILT BY
C. G. Sargent's Sons
Graniteville, Mass.,
U.S.A.
Builders of Wool Washers,
Burr Pickers, Wool
Deyers, etc.



The above represents our New Hydraulic Wool Washer, superior to Rake Machine. Send for Illustrated Catalogue.

THE Sydenham Valley Canning Company's canning factory at Wallaceburg, Ont., was destroyed by fire January 23rd. Loss about \$13,000.

MESSRS. TAYLOR & Co., Merriton, Ont., have just received a 140 light incandescent dynamo from H. W. Petrie, machinery dealer, Toronto.

MR. A. W. METCALFE, of Grimsby, is starting a turning factory. He has purchased an engine, boiler, etc., from the Canada Machinery & Supply Co., of Brantford.

THE Canadian Pacific Railway Company will, during the approaching spring, erect a grain elevator at Port Douglass, near Winnipeg, Man., of 1,000,000 bushels capacity.

MESSRS. SALE & MARRATT, manufacturers of pocket-books, etc., Oakville, Ont., will engage in the manufacture of suspenders, ladies' and gent's belts, ladies' hose supporters, etc.

MR. W. C. VAN HORNE is authority for the statement that a flour mill will be erected at Keowatin, Man., the coming season, quite as large, probably, as that at Lake of the Woods.

THE Eastern Asylum, Brockville, Ont., have just ordered from Messrs. Cowan & Co., Galt, four very large tanks, to be placed on the top of the asylum buildings for water supply and fire protection.

THE Safety Barb Wire Company, Toronto, are applying for incorporation with a capital stock of \$75,000 to manufacture barb wire, wire nails, etc. Mr. Edwin A. Beers, Toronto, is one of the promoters.

THE Dominion Leather Covered Pulley Company, with headquarters at Chatham, Ont., are applying for incorporation with a capital stock of \$12,000 to manufacture a patent leather covered pulley, etc.

W. H. NOLAN, manager Canada Machinery Agency, Montreal, is supplying the Queen's Hotel of that city with two 50 h.p. Robt. Armstrong Automatic engines, and the Balmoral Hotel with a 60 h.p. engine of the same make.

F. TREMBLAY has started his new sash, door and blind factory on William Street, Montreal. He has put in a quantity of new machinery, some \$6,000 of which was supplied by the Canada Machinery Agency of Montreal.

MR. GEO. MARTIN, of Hospeler, is doing quite a large business in preserved meats, etc. He has just bought an engine and boiler from the Canada Machinery & Supply Co. of Brantford, and intends going into the business largely.

CANADIAN RUBBER Co., Montreal, are putting in a quantity of new machinery, among which is a machine for reclaiming rubber from old scraps, also a large vulcanizer, both of which machines were built by W. C. White, Montreal.

MESSRS. ROBIN & SADLER, Montreal, inform us that their business in 1892 in leather bolting, boom strapping and mill supplies generally, was the largest they ever enjoyed. This speaks well for the manufacturing industries of the country.

THE Royal Electric Company, Montreal, have just put in their works a battery of 750 h.p. Babcock & Wilcox boilers. These are the first of these boilers which have been built in Canada. Messrs. A. Holden & Co., Montreal, are the Canadian agents.

THE Canada Carriage Company, with headquarters at Brockville, Ont., are applying for incorporation for the purpose of purchasing

A. & E. LOIGNON

Civil Engineers

And Builders of

Bridges and Iron Buildings

FOR MANUFACTURING PURPOSES

Structural Iron Material Kept in Stock

DESIGNS, ESTIMATES AND SPECIFICATIONS.

7 Place d'Armes - MONTREAL.

THE "OPTIMATES" POWER HAMMER

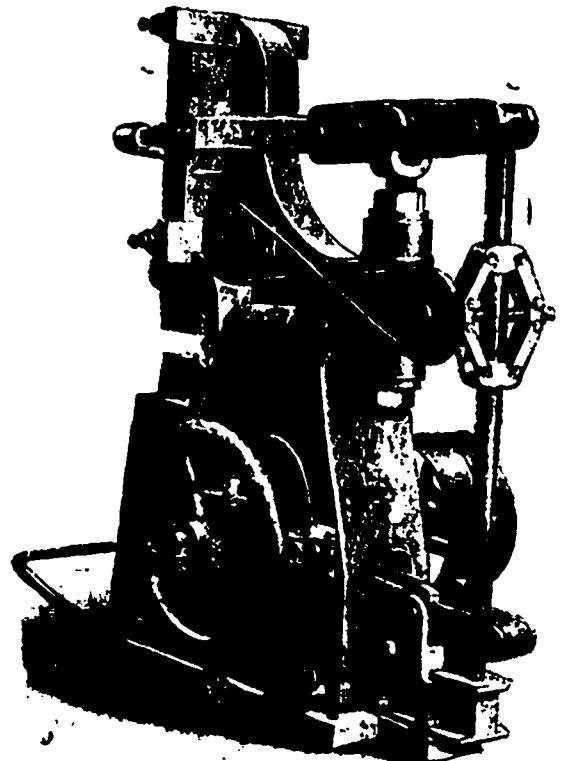
Patented in the United States, Canada, and England.

W. H. LAW,
Inventor.

MANUFACTURED BY

The Central Bridge and Engineering Co., Ltd.

PETERBOROUGH, ONTARIO, CAN.



the business of the Gananoque Carriage Company, Gananoque, Ont., and the Brockville Carriage Company, Brockville.

The Gendron Manufacturing Company, Toronto, will enlarge their facilities by adding another story to their factory. This will give them 20,000 feet more floor space, their building being 209 x 100 feet. They will also put in about \$3,000 worth of new machinery.

The Toronto Portable Oven and Manufacturing Company are applying for incorporation, with a capital stock of \$10,000, to manufacture the Hubbard portable bakers' oven, the patent right of which the company will acquire. The first directors of the company will be Horace Thorne, Richard Thorne and James J. Warren.

Mr. J. D. FULLER, founder, Brantford, Ont., will soon move into larger premises. He has bought the Stubbs' block in that city, and in the spring expects to add to the capacity of the buildings. His works will run it by electric power. The business will be conducted under the name of the Brant Brass and Iron Foundry.

HIGH GRADE WRAPPING PAPERS

Manilla and Brown Wrapping and English Glazed Casing carried in stock and made to order. Quality unexcelled. Prices right.

Special attention to letter orders.

CANADA PAPER CO., (Ltd.), 15 Front St. West, Toronto. CRAIG STREET, MONTREAL.

Hydro - Carbon Burner

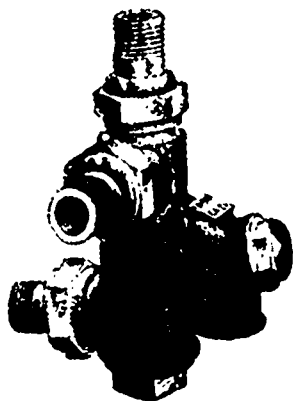
For Burning Crude Petroleum under low pressure (Meyer's Patent.)

Adapted for all kinds of Iron and Steel Forging, Tempering and Welding, Annealing, etc., for Burning Sewer Pipe, Heating Asphalt, Oxidizing Lead, Generating Steam, and an endless variety of special work.

Engineers furnished on application to equip plants with our improved system.

STANDARD OIL FUEL BURNER CO.

Fort Plain - NEW YORK.



PENBERTHY AUTOMATIC INJECTOR

60,000 IN USE

Absolutely Automatic.

AND

. . . Restarting at all Pressures

Send this advertisement and write for prices.

PENBERTHY INJECTOR Co. DETROIT, MICH

New Glasgow. I. MATHESON & CO. Nova Scotia.

Engineers and Boiler Makers

MANUFACTURERS OF

Corliss Steam Engines

Especially adapted for Mills and Factories.

Agents for

D. H. and C. Maggie's Patent Wire Rope for Mining Purposes

DRAPER'S IMPROVED

GLOBE VALVE

Patented.

Constructed to prevent Scales or Grains of Dirt being Caught between Faces at point of closing.

When the projection on valve enters the seat orifice, of which it is an ear, it only clear fluid rushes past. Scales, etc., are washed back and the faces meet with nothing between to injure them. Send for prices and particulars to

T. DRAPER,

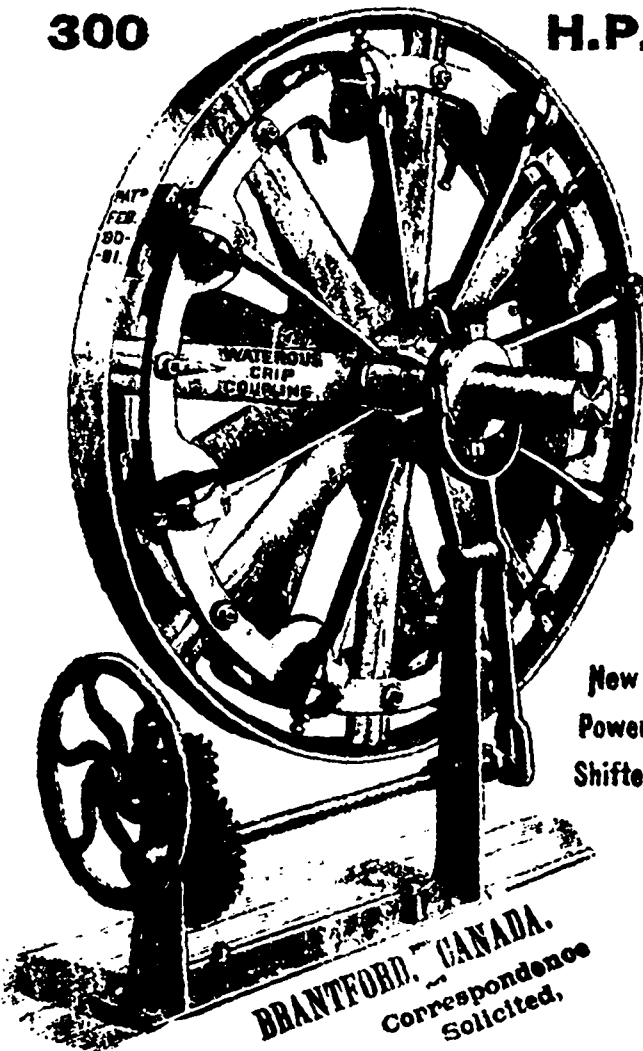
Manufacturer.

BALL VALVES for various purposes. Oil and Salt Well Supplies, Etc., Etc.

PETROLEA, ONT.

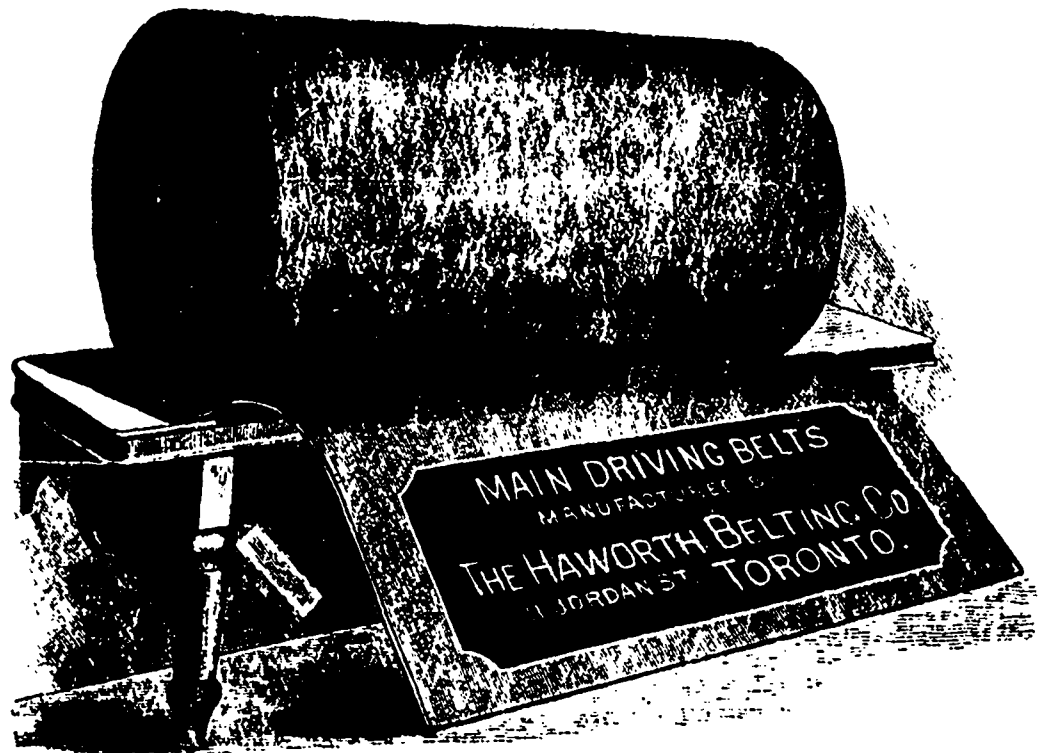


300 H.P.



New Power Shifter

BRANTFORD, CANADA. Correspondence Solicited.



The mill, machinery and house, and contents of mill, belonging to the late firm of Smith, Malcolm & Gibson, Brussels, Ont., has been sold to Messrs. Oliphant Smith and Thomas Dodds, and the business will hereafter be carried on under the firm name of Smith & Dodds. The price paid was \$4,600 00, which excludes all lumber and material.

The Dominion Blanket & Fibre Company, Montreal, have been incorporated with a capital stock of \$250,000. This, we understand, is the result of the amalgamation of the Dominion Blanket Company and the Fibre Chamis Company, a branch of the works at Beauharnois, Que., being devoted to the manufacture of paper linings for garments.

Messrs. STEINHOFF & GORDON, of Wallaceburg, Ont., manufacturers of cooperage, last year did a business which is excelled by very few, if any, firms in the Dominion. During that time they made 60,000,000 staves, 12,000,000 hoops, 1,000,000 heads, besides selling 1,000,000 logs and 8,000 cords of wood and bolts, totalling in value nearly \$500,000.

What is said to be the largest boiler as yet built in Galt, Ont., is now being built by Messrs. Cowan & Co., of that town. It is of John Galt's patent, and is 6 ft. 6 in. diameter by 16 ft. long. It has 64 4-inch and one 42-inch flues, and will weigh about twelve tons. It is to be used for the Burk estate factory, corner Sheppard and Richmond Sts., Toronto.

The mammoth combined factory for the Gould Bicycle Co., and the Gould, Shapley & Muir Co., of Brantford, is well under way. When completed it will be the largest in its line in Canada. We understand the contract for a high grade automatic engine, and the necessary machinery, has been awarded to the Canada Machinery & Supply Co., of Brantford.

The Goldie & McCulloch Company, Galt, are adding another lathe for medium length shafting and general work. It is being built by Messrs. Stevens, Hamilton & Co., that city. There is a difference in this lathe from others, in that it will have about double the driving power of a modern lathe of same size. The screw cutting gears are also extremely powerful, being strong enough to cut a 1 inch pitch thread.

Messrs. E. SCHMIDLIN & Co., Brantford, Ont., manufacturers of special machinery for coffee, spice, baking powder, chocolate and

POROUS TERRA COTTA FIREPROOFING

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

The finest thing for suburban cottages. Excludes heat and cold; is cheap and durable.

Try our improved Cedar Oil for cleaning boilers. We guarantee it to satisfy or no pay.

ADDRESS

The Rathbun Company

DESERONTO, ONT.



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

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

Machinists' Fine Tools

DRILLS, CHUCKS, REAMERS, ETC.

WILEY & RUSSELL TOOLS
Screw Cutting

RICE LEWIS & SON, Ltd.

TORONTO.

Hamilton Cotton Co.

HAMILTON, - ONTARIO.

DYERS, BLEACHERS,

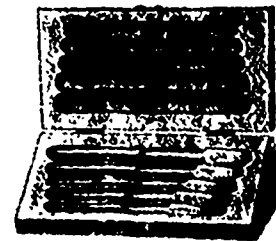
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candy makers, have just supplied Messrs. Burnley Bros, that city, with an outfit of machinery for their new steam laundry. They have also recently built and set up for Messrs. Gorman, Eckert & Co., London, Ont., an outfit of improved machinery for the manufacture of French mustard.

The Trading & Factory Company, Toronto, are offering special inducements to manufacturers in the factory flats, with power, which they have for rent. Their premises are those on the Esplanade, formerly occupied by Jacques & Hay as a furniture factory. They are splendidly situated for manufacturing purposes; are near the centre of the wholesale warehouse section; the shipping facilities are very advantageous, and the sidings of the two railways are in front of the buildings. Mr. F. W. Barrett, 68 Esplanade west, is manager.

The Watrous Engine Works Company, Brantford, are building another large friction clutch pulley for the Royal Electric Company, Montreal, the ninth they have supplied to that company. They have recently shipped to the Perth Electric Company, Perth, Ont., some friction Pulleys, friction clutch gearing, shafting and water wheels. They have several orders for Simpson's dry press brick machines; also orders for a number of their band mills. They are supplying the compound engine and boiler for the Brantford Electric Street Railway; also boiler, shafting, friction pulleys, etc., for the Brantford Electric Light and Power Company.

The Graham Nail Works, Toronto, have sent us the printed price list just issued by the Cut Nail Association. This is the standard list, and has reference to every variety of iron and steel cut nails, giving terms of credit and other information valuable to the trade. This Association includes, we believe, every cut nail mill in Canada. The Graham people are sending out to their friends miniature keys of their nails as samples of their products, and invite special attention to their quality and general appearance. They make all sizes of both Canadian and American patterns; and they advise dealers when ordering nails to insist on having the Graham nail.

The John Doty Engine Company, Toronto, have sent us a catalogue having reference to their business, in which they announce that they are manufacturers of triple expansion marine engines, compound marine engines and high pressure marine engine, Corliss engines, Armington & Sims engines, plain slide valve

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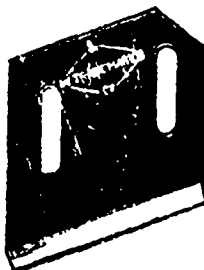
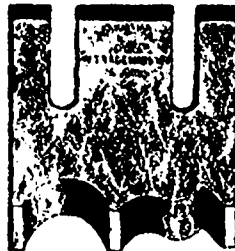
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TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.

ONE 64 x 9 SLIDE-VALVE ENGINE, Copp Bros. & Barry make.

TWO 51 x 9 SLIDE-VALVE ENGINES, Beckett's make.

ONE 6 H.P. ENGINE, upright, with 8 h.p. boiler combined on one cast iron base.

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ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

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The Standard Oil Fuel Burner Company, Fort Plain, N. Y., are offering our readers a hydro-carbon burner for burning crude petroleum under low pressure, and adapted for all kinds of iron and steel forging, tempering and welding, annealing, etc.; and for burning sewer pipe, heating asphalt, oxydizing lead, generating steam, etc. Crude petroleum has come very largely into use in manufacturing establishments in the United States, and to some extent in Canada, the prospect being that, when the Canadian duty upon crude oil is considerably lowered, as it undoubtedly will be at the present session of the Dominion Parliament, the use of that article as fuel for industrial purposes will become quite as general in this country as in the United States.

The Northey Manufacturing Company, Toronto, have sent to us their new general catalogue, having reference to the pumping machinery manufactured by them. In presenting this catalogue attention is called to the substantial advances made by the company in the number, quality and general get up of their machines since their last catalogue was issued; special attention being called to the simple, positive, noiseless, adjustable, and reliable valve gear. The pumping machines made by this concern include about everything in that line to be desired for any purpose. They speak of having the largest and best equipped steam pump works in Canada, simply provided with tools specially designed for their business. The extensive works of the Northey Company are near the King Street subway.

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Mr. R. H. CUSHING, Moncton, N.B., is interested in a new nut lock recently invented by Mr. Angus Fougere, and which consists of an ordinary bolt and nut, the lock being a secondary nut, about the size of a thick washer, in which a thread is cut in such a way that when lightly screwed in the plane of the washer is inclined from three to ten degrees to the plane of the nut. The washer, which is made of mild steel, is screwed up tight against the nut, which forces its threads from their natural position and thus causes the washer

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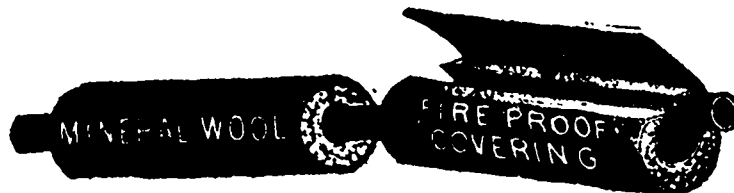
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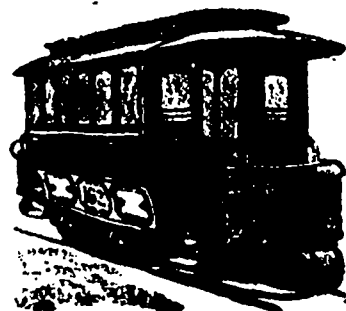
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to bind on the bolt. The thread of the bolt is not injured, and it is said the nut cannot be started by vibration, nor can it be loosened by a wrench until the lock is first unscrewed. The Inter Colonial Railway of Canada has used about 2,500 of these locks for over a year.

The Farmers' Binder Twine Company, of Brantford, Ont., a notice of which recently appeared in these columns, have completed their factory and started to work manufacturing binding twine for the coming season. Their main building is 200 x 45 feet, and has sixty spindles at work, with capacity for thirty-six more. The store house is 200 x 45 feet, and the engine and boiler room 80 x 40 feet. The factory is heated throughout by steam, lighted by electricity, and is well ventilated. They will employ from fifty to seventy-five hands. Mr. Fred Chalcraft, manager and secretary, is thoroughly experienced, having been manager for the Consumers' Cordage Company's factory in Brantford for some years. He is employing only experienced hands. This, together with the fact that they have the capital, and that most of the stockholders are consumers of their product, ought to place the company on a good footing.

A PROSPECTUS has been issued for the formation of the British American Manufacturing Company, with a capital stock of \$100,000 to establish a nail factory in Toronto. It will be remembered that some months ago allusion was made in these pages to a process invented by Mr. J. B. Hastings, of Wheeling, West Virginia, of instantly converting molten cast-iron into steel, and of some experiments in that line at that time at the works of the Massey Harrier Company in this city. Mr. Hastings is an inventive genius, and the method of making nails proposed to be adopted by the company here alluded to is his invention. It is claimed for his machine that while less expensive to operate it will produce twice as many nails as any other machine known. The prospectus makes a most rosy picture showing of extraordinary profits in manufacturing nails by this new method; and if the company goes into operation and does what the prospectus suggests, as being quite possible for it to do, it would have the effect of possibly closing up all the other nail mills in the country. We believe, however, that all these other mills are quite busy at their old stands.

THE MERCHANTS' DYEING AND FINISHING COMPANY.

ALLUSION was recently made in these pages to the organization in Toronto of the Merchants' Dyeing and Finishing Company, and of the factory on Liberty Street, near King Street subway, erected by them. There are few either in the trade or out who comprehend the full value of this enterprise. The premises are large and commodious, built with special reference to the accommodation of the business in which they are being used, and of sufficient extent to admit of the introduction of two or three times the quantity of machinery now placed there. The machinery now there is of the best and most modern description, and cost some \$30,000; and employment is being given to about forty expert workmen.

The special business of the company is to dye and finish fine woollen dress goods, either of domestic or foreign manufacture. It should be remembered that the manufacture of such fabrics is one special branch of business, and that the dyeing and finishing of them an entirely different matter. The goods are woven from undyed yarns, after which they are sent to another establishment where

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they are dyed in solid colors and finished ready for market. One of the objects of this company is to take undyed goods as they come from the loom, or goods which have been improperly dyed, or which it is desired should be dyed of another color, and to dye them in colors to suit. An establishment of this character in Canada where first-class work is done, cannot but be of vast value not only to the manufacturers of dress fabrics, but to the wholesale and jobbing trade, where quantities of fabrics may be on hand, but quite unsaleable because of faded or undesirable colors. Such goods may be sent to this establishment, dyed in colors to suit, dressed and delivered at only a few hours' notice. The capacity of the Merchants' Dyeing and Finishing Company's works is to handle 75 pieces of 50-yard goods per day, or considerably more than a million yards per year. To do this implies that the expense for labor, fuel, chemicals, etc., would amount to some \$40,000 per year, exclusive of other expenses and administration of business. During 1892 the imports into Canada of such fabrics as this company propose to manipulate amounted to 20,500,000 yards. Until the establishment of these works no facilities existed in Canada for doing this class of work, the cost of it being expended entirely in other countries. This establishment, however, has capacity to handle only a tithe of the demand; and if all these imported fabrics were dyed and finished in Canada, it would require about eighteen such concerns, involving an investment of \$350,000 capital; an expenditure of \$700,000 per annum, and the constant employment of over 700 skilled artisans and workmen.

In the United States the dyeing and finishing of fabrics is a comparatively new industry, but it has already assumed very large proportions, a very recent acquisition to it being that of a very large French concern, who are establishing works in New Jersey. In that country there are now some 250 establishments in operation in this industry, consuming \$6,000,000 worth of drugs, dyestuffs and chemicals per year.

The management of the Merchants' Dyeing and Finishing Company is in the hands of Mr. Alfred Burton, who has acquired a most thorough, practical and technical education in the business in Europe; and the financial backing of the company is amply sufficient for all its purposes.

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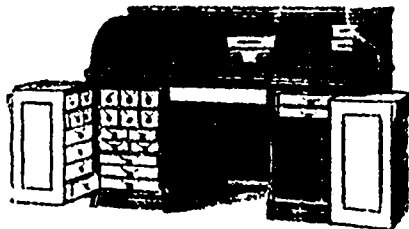
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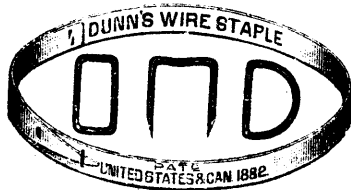
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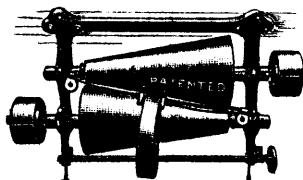
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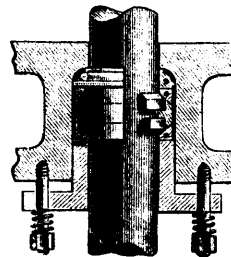
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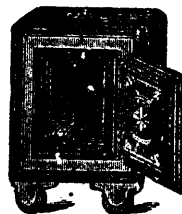
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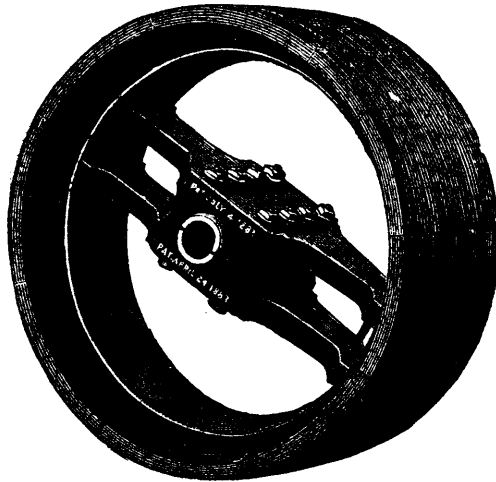
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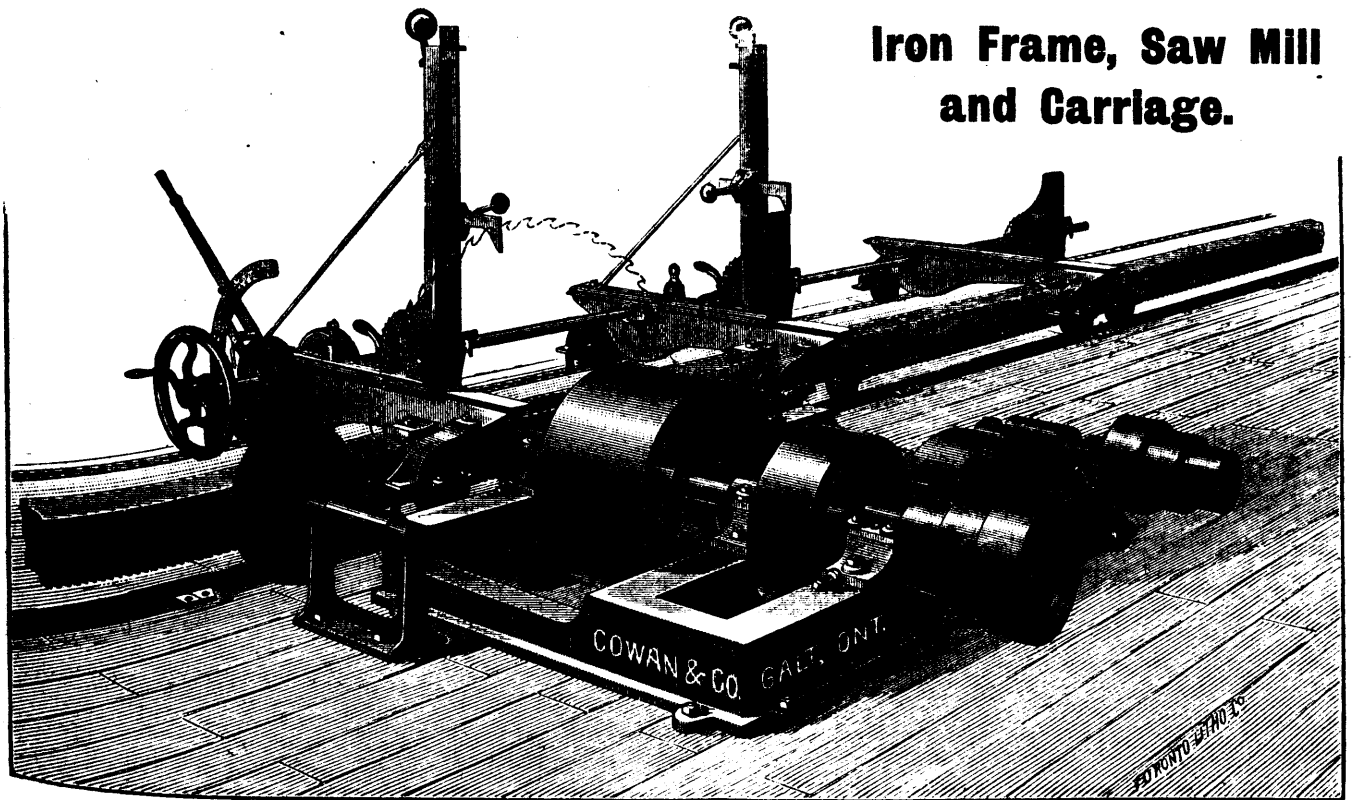
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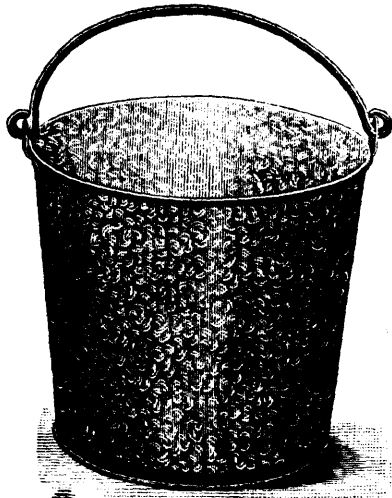
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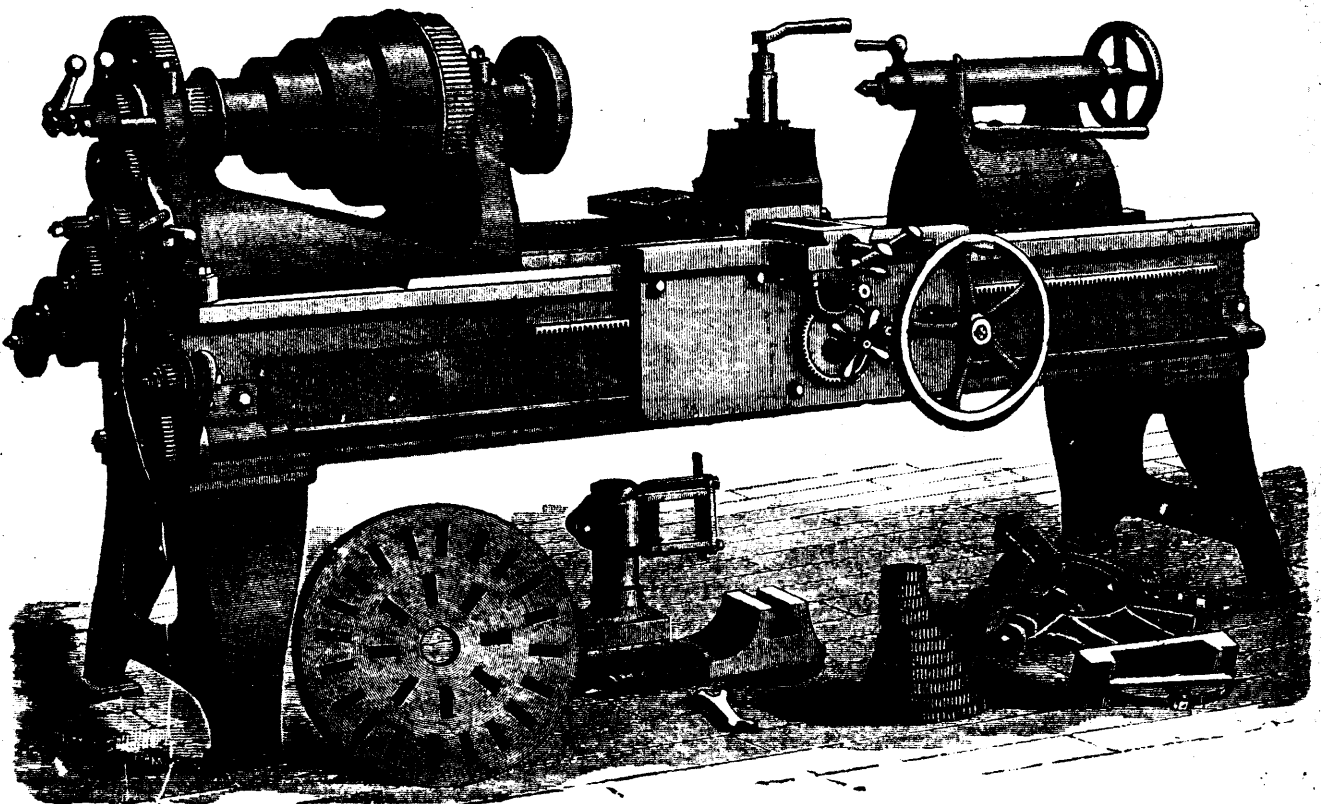


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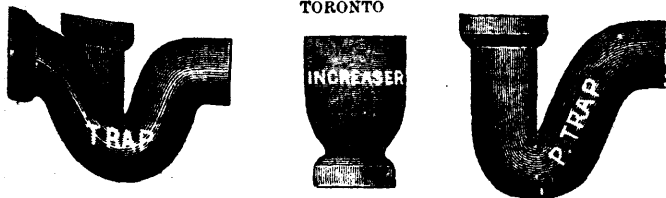
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- To enable those in all branches of manufacturing enterprises to act in concert as a united body whenever action in behalf of any particular industry, or of the whole body, is necessary.
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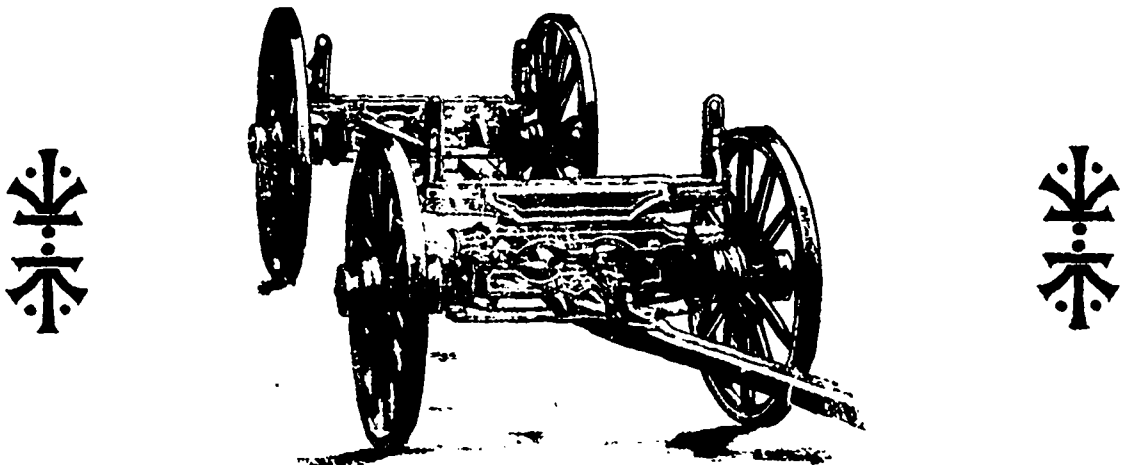
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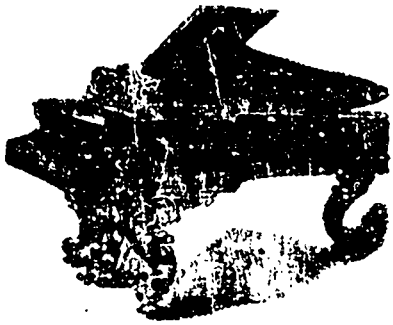
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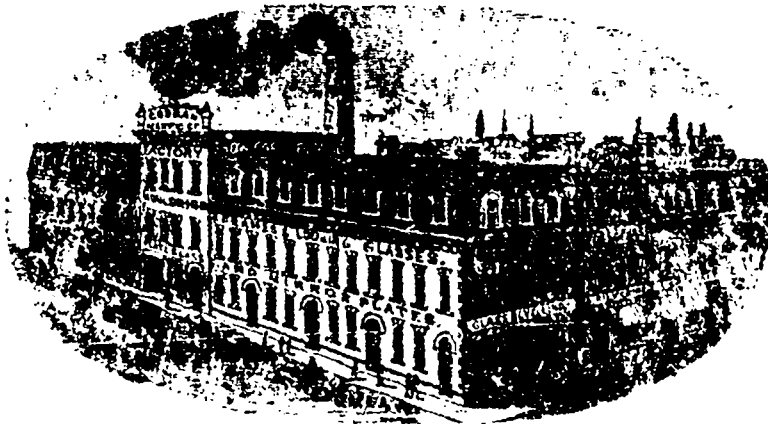
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