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THE CANADIAN MANUFACTURER

DEVOTED TO *
 THE MANUFACTURING & MINING INDUSTRIES,
 OF THE DOMINION. * AND INDUSTRIAL WORLD.

Vol. 14.

TORONTO, JUNE 1, 1888.

No. 11.

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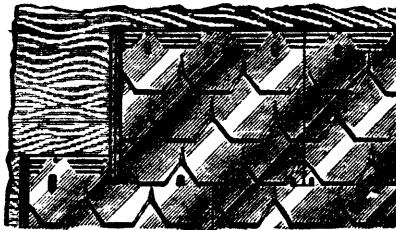
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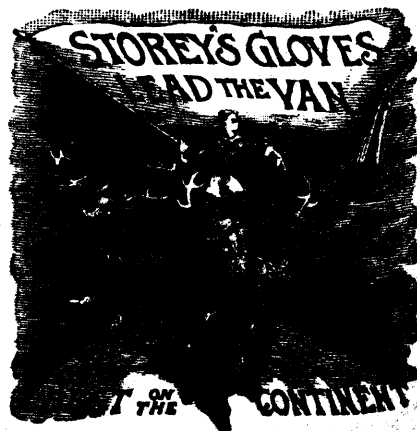
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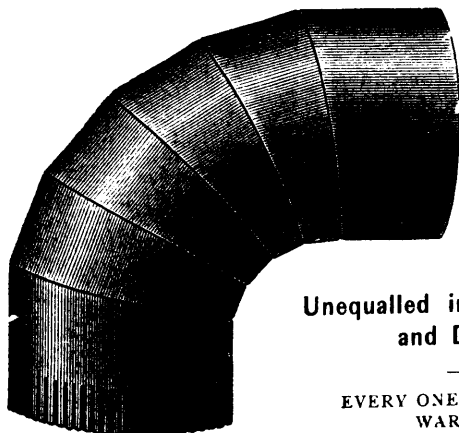
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This Journal has won for itself an acknowledged position amongst Trade Journals and is recognized as the representative industrial paper of Canada. All the various industries of the country are represented in its columns, and it has been for years the fearless and consistent advocate of those reforms which were indispensable to the success of the Manufacturers. It now reaches nearly every mill and factory in the Dominion, and its influence is constantly increasing.

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Any association of manufacturers who may desire to hold meetings for organization or other purposes, are invited to avail themselves of the meeting room adjoining the office of the CANADIAN MANUFACTURER.

MR. FREDERIC NICHOLLS is Secretary of
The Canadian Manufacturers' Association,
The Woolen Manufacturers' Association, and
The Tanners' Association.

His Office is at the Publication Office of
THE CANADIAN MANUFACTURER,
6 Wellington Street West, Toronto.

Captains of Canadian Industry.

"THE nation that manufactures for itself, prospers." Nature has dealt most bountifully with this Canada of ours, and a fairer and more beautiful land the sun never shone upon. The garden of Eden was also a fair and beautiful land, but it has never been celebrated in history for its manufactures, or for the commerce derived therefrom. With quite as many, or even greater natural advantages than Eden ever possessed, Canada is fast assuming a front rank with the proudest nations of the earth as a manufacturing community; and as such its value and importance is coming to be generally admitted. The men who are doing most to elevate Canada to its proud eminence are its manufacturers—its Captains of Industry—and it is they who handle the elevating lever. The names of these men must be perpetuated. They must be known to posterity as the ones who did so much for their country. They must have niches assigned them in the temple of their country's fame, and their faces must be familiar to all who are interested in their country's weal. The CANADIAN MANUFACTURER has imposed upon itself the task of assisting in this meritorious work, and in this issue is begun the publication of the likenesses of quite a large number of these "Captains of Canadian Industry," together with short sketches of their lives, and of the enterprises in which they are or have been interested. We are sure our many readers will appreciate our enterprise in this direction, and that they will carefully preserve this and succeeding numbers in which this feature will be embodied. They

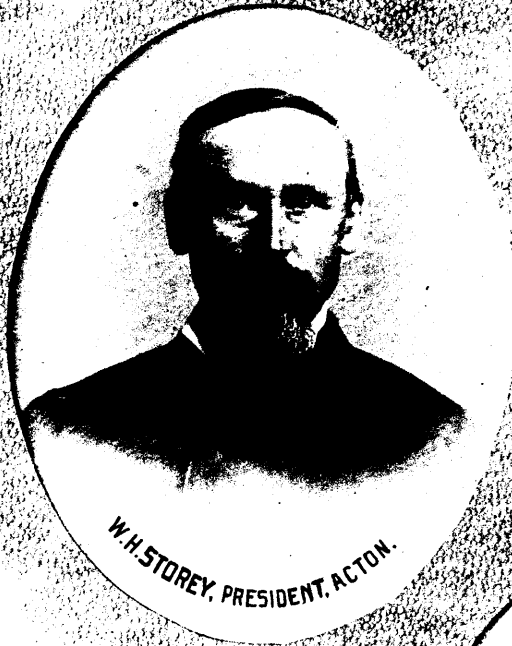
will constitute a most valuable album and book of reference. It will be observed that the pictures are really a work of art, upon which great care has been bestowed, and which reflects great credit upon the artists who produce them. The series is begun with pictures and sketches of the president, first and second vice presidents and treasurer of the Canadian Manufacturers' Association.

W. H. STOREY.

IF the biographies of great men furnish those who are beginning life with an incentive to aspire, the history of individuals who have risen from humble life to eminence and high position offers an encouragement as well as a stimulus. And the incentive will be stronger in cases where position has been acquired by unaided exertion and steady perseverance, without the external advantages of financial aid and outside patronage. In these we see the boy, the youth, the young man, dauntlessly struggling up the ladder of life, though outward influences would tend to depress and impede his progress; grappling with each successive obstacle until all difficulties are surmounted and the topmost round is attained.

In all these respects the life of William H. Storey, glove manufacturer, Acton, Ont., presents an example of high admiration and much encouragement. Mr. Storey was born in the village of Ayton, Yorkshire, England, in 1837. He was the only child of his parents, who emigrated with him to Canada in 1845, settling in Summerville, on Dundas Street, York County. During his youthful days his advantages for education were good, and with the personal energy and perseverance, coupled with the firm determination to succeed, which have characterized him all through life, he secured an excellent English education in his youthful days. At the age of fifteen both parents died, and at this early age, realizing that a trade well learned was of advantage to every young man, he apprenticed himself to the late John G. Rogers, Esq., of Lambton Mills, to learn the saddlery business. The years of his apprenticeship spent with this worthy man tended very materially in establishing the upright and straightforward character which he possesses. Having completed his term as apprentice, he determined to engage in business for himself, and in partnership with Mr. J. F. Taylor, now of Georgetown, Ont., the saddlery business of Storey & Taylor was established in Acton in 1856. This partnership existed for three years, when Mr. Storey purchased his partner's interest and continued the business himself. In 1857 he married Miss Hannah Jane Smith, eldest daughter of Anson Smith, Esq., now an esteemed resident of Acton. Three sons and four daughters blessed this union, but Fred H., the eldest, and Franklin, the youngest, have departed this life; and Mr. Storey marks the saddest days of his life at the periods when he lost his boys, the former of whom had just been associated with him in partnership, and had become like a strong right arm to his father in business matters. His saddlery business was a success for the reason that it received his constant personal supervision, and every detail of the work executed was performed in the best possible manner. It may be considered a digression, but the fact is so rare that we refer to it, that although it is now twenty years since he gave up that business, there

PLATE I.



W.H. STOREY, PRESIDENT, ACTON.



SAMUEL MAY, 1st VICE PREST. TORONTO.



B. ROSAMOND, 2nd VICE PREST. ALMONTE.



GEORGE BOOTH, TREASURER, TORONTO.



OFFICERS OF THE

Canadian * Manufacturers' * Association. ❧

(SUPPLEMENT TO THE "CANADIAN MANUFACTURER.")

are sets of his harness still in constant use and in fairly good condition. In 1868, with his usual keen foresight, he observed that while Canada was an extensive consumer of gloves, mitts, etc., the manufacture of this very necessary article of trade was almost totally neglected. He then disposed of his saddlery business, and with characteristic energy established the "Canada Glove Works." While at first comparatively few of the many lines at present manufactured were made, very few years of careful and observant study of the wants of the people sufficed to place the business in the front ranks; and to embrace the entire catalogue of gloves, etc., among its regular lines of manufacture, from the finest unlined kid down; and to demonstrate to the country that Canada could excel in this department. From the day of its inception Mr. Storey has given every department of the business his personal attention, not the slightest detail being neglected; and to his efforts alone is due the honor of building up a business requiring the services of 200 skilled operatives, and of winning for him the very highest positions of trust among his fellow-business men of the Dominion.

Notwithstanding the fact that Mr. Storey has always been overwhelmed with business affairs, he has not neglected in any sense the demands upon every good citizen from social, municipal and general quarters, and has always found time to ally himself with matters of public interest. An evidence of the esteem in which he is and has been held by his fellow citizens is the fact that he was the first gentleman elected to the chair of first magistrate of the municipality; that only three other citizens have ever held that office, and that at the earnest request of the ratepayers at the last hustings he is the present incumbent of the office. His fellow-officers of the county have also honored him, for he is warden of the county of Halton the present year. His name has several times been mentioned in connection with the House of Commons; and while his business and other interests have in the past rendered it impossible for him to accept nomination for Parliamentary honors, there is no doubt his candidature would result most favorably. His sterling integrity and general traits of character have placed him among the most prominent manufacturers of the Dominion, and these gentlemen, recognizing his executive ability, at the last annual meeting of the Canadian Manufacturers' Association elected him to the presidential chair. This position he now occupies with credit to himself and gratifying pleasure to all concerned.

Acton, his adopted home, bears the impress of W. H. Storey in every possible way. To his worthy example and artistic taste in private and public improvements alike is very largely due the neat and picturesque character of this pretty and industrious country town. The excellent appearance of his extensive manufactory, and the architectural beauty of his spacious private residence and grounds, evince his desire to improve the town. But this is not all. His influence and taste are apparent in the tidy, well-lighted streets and avenues of the town, lined with beautiful shade trees; the attractive public park; the well-kept and picturesquely situated cemetery; the excellent town hall, council chamber, public library, schools and surroundings, all of which he was among the foremost in establishing.

Few men are doing more for their country in public and private life than W. H. Storey.

SAMUEL MAY.

A PHILOSOPHER has said that the man who causes two blades of grass to grow where but one grew before, is a benefactor of his race. How much greater the benefaction, then, should result from the efforts of the man who successfully establishes a new business enterprise—who introduces and carries on an industry that had no previous existence; and how much higher should that man be held in the estimation of the community who successfully establishes two such industries.

About twenty years ago there was no establishment in Canada for the manufacture of billiard tables. There was no great demand in the country for that class of goods, simply because they had to be imported. At the time indicated Mr. Samuel May conceived the idea that a billiard table manufactory in Toronto would pay; and against the counsel and advice of friends, the business was undertaken. Of course in its incipiency it was on a modest scale; but being a master mechanic and thoroughly acquainted with his business, under Mr. May's management the industry has steadily grown and expanded, until it has become one of the most important in Canada.

The billiard table of to-day, however, is a very different affair from what it was twenty years ago; and Mr. May has not only been prompt to incorporate into the construction of those manufactured by him all the latest and most desirable improvements, from whatever source they may originate, but he has also exercised his own skill and ingenuity in inventing a steel combination billiard cushion, the value of which is acknowledged all over the world; the invention being protected by patents in Canada and the United States.

Some two years ago Mr. May became interested in another business equally new to Canada—the manufacture of the Dodge patent wood separable, or split pulleys, and became the president and managing director of the Dodge Wood Split Pulley Company, of Toronto, organized for the purpose of manufacturing these pulleys. This business, too, was quite small in its infancy, but it developed with remarkable activity; and at this time the plant and buildings devoted to the manufacture of the article are taxed to their utmost capacity in filling orders. The peculiar adaptability of these pulleys, especially when grooved to be used in connection with the Firmus system of transmission of power by rope, has been heretofore fully described in the pages of the CANADIAN MANUFACTURER. This system is claimed to be cheaper and superior to belts in many cases, such as where the driven shaft is at right angles with the driver; where the drive is perpendicular, particularly when it is quarter-twist and perpendicular; for long drives, such as across a street or a stream, etc.

These two industries here alluded to, in which Mr. May is the moving spirit, are now carried on at the premises covering numbers 81, 83, 85, 87 and 89 Adelaide Street West, Toronto. The buildings, which are of brick, and four and five stories high, and have an aggregate floor space of over 33,000 square feet. As extensive as their works are, it is found that they are entirely too small for the purposes to which they are devoted; and it is Mr. May's intention to secure much larger and more commodious accommodations elsewhere at an early day.

These two industries are the only ones of the kind in Canada; and the products of them are in strong and increasing demand.

All of the more prominent club rooms and billiard halls from Halifax to Vancouver are equipped with billiard tables manufactured by Messrs. Samuel May & Co., of Toronto; and the split pulleys manufactured by the Dodge Wood Split Pulley Company, of Toronto, are in high favor in very many of the flouring and lumber mills, factories and industrial establishments generally throughout the Dominion.

Mr. May was born near Hamilton, Ont., in 1836, and is a typical Canadian. In the prime of life, he is full of vim and energy; always busy, but never too busy to exchange kind words with friends, or to listen to any who may desire to approach him. Through industry, economy and good management he has amassed a moderate fortune, and is considered one of Toronto's most solid and reliable citizens. He has always been a strong supporter of the National Policy; and, ever since its organization, a member of the Canadian Manufacturers' Association, of which he is now the First Vice-President.

BENNETT ROSAMOND.

BENNETT ROSAMOND, president and managing director of the Rosamond Woolen Company, Almonte, Ont., and second vice-president of the Canadian Manufacturer's Association, was born in Carleton Place, Lanark County, Ontario, in 1833. His father, James Rosamond, is a native of Ireland who, previous to the birth of his son, Bennett, had settled at Carleton Place where he became largely interested in several manufacturing industries. He owned the control of the valuable water power privileges there, which were used for operating flour and oatmeal mills on one side of the river, and a sawmill and a wool carding mill on the other. In this latter mill machinery for spinning woolen yarns, and weaving woolen cloths was introduced, and this was really the foundation and beginning of the extensive business in which Mr. Rosamond is now engaged.

In 1857 the lease of these water powers expired, and Mr. James Rosamond and his family moved to Almonte, Mr. Rosamond having bought the site and ruins of the Ramsay Woolen Cloth Manufacturing Company's mill there. In 1862 Bennett Rosamond and his brother William, (now doing business in Coburg, Ont.) leased this property on which a substantial four-story two-sett mill had been built. They formed a copartnership under the firm name of B. & W. Rosamond, and during the ensuing three years the capacity of their mill was doubled, it having been increased to a four-sett mill. In 1866 Sir George Stephen became a member of the firm, the name being changed to B. & W. Rosamond & Co., and another water power was bought, upon which the large mill, now known as the "No. 1," was built. The firm also leased a water power on the upper falls of the Mississippi river upon which they built a two-sett mill for the manufacture of blankets, this being the third mill operated by them; and from which circumstance the present local popular names Nos. 1, 2 and 3 were given these mills. No. 1 is the large new mill; No. 2 the old mill, which was sold, and is now owned by Messrs. Elliott & Co., and No. 3 is the blanket mill, which was also sold, and which was afterwards destroyed by fire. This mill, however, has been rebuilt, and is now worked as a flannel mill by Mr. William Thoburn.

In 1870 the firm of B. & W. Rosamond & Co., became a joint stock company with Bennett Rosamond as president and managing director, which responsible position he has held continuously ever since.

Starting with six sets of machinery the capacity of the Rosamond Mills has been increased from time to time until they now contain twelve sets of woolen and the equivalent of three sets of worsted machinery. The mill buildings are all of the most substantial character, and are equipped throughout with the best and most improved machinery.

When the Rosamond family settled in Almonte that town was not celebrated for its manufacturing industries, and its population numbered only about 250 persons, but the establishment and putting into operation of the Rosamond mills was the beginning of a prosperity for the town that has increased its inhabitants to about 3,500 souls. When Almonte was a village, emerging from its crystal state, Mr. Rosamond was its reeve, and when it became a town, he was its first mayor, and it is to his excellent executive and administrative ability the place owes much for the rapid and material advancement it has made.

Besides being president and manager of the Rosamond Woolen Company, Mr. Rosamond is managing director of the Almonte Knitting Company and a director in the Coburg Woolen Company. He has been chairman of the Almonte Board of Education. At its last annual meeting Mr. Rosamond was elected second vice-president of the Canadian Manufacturers' Association.

GEORGE BOOTH.

GEORGE BOOTH, of Toronto, Treasurer of the Canadian Manufacturers' Association, was born in Cranbrooke, Kent County, England, in 1838. When but a child he was brought to Canada, his father selecting St. Catharines as a place of residence. Later the family removed to Toronto, and in 1861 George Booth, together with his brother Henry Wood, were admitted to partnership with their father, H. G. Booth, in the coppersmith business, under the firm name of H. G. Booth & Sons. The Booth family possessed that peculiarly British characteristic of continuing a chosen line of business from generation to generation. George Booth learned the coppersmith trade, and is a proficient at it. His father was an expert coppersmith; and the grandfather was also an experienced workman at that trade. Mr. Booth was the founder of what was the largest and most important sheet metal manufacturing establishment in Canada, in which business his inventive genius found active employment; and in the present business is included the manufacture of quite a number of sanitary and culinary articles which were invented and patented by him, and which are of acknowledged value and merit.

Mr. Booth has always been an active participant in all civic affairs that have tended to the advancement of the material interests of Toronto, and this was particularly the fact when he occupied an aldermanic seat in the City Council. He was an active promoter in the formation of the Toronto Industrial Exhibition Association; was a charter member thereof, and has always been a member of the Board of Directors of that Association; and to his earnest efforts and intelligent advice

and suggestions in behalf of this splendid enterprise, in common with his co-directors, is the city of Toronto indebted for the enviable success which characterizes the yearly exhibitions of the Association.

Mr. Booth was made Treasurer of the Canadian Manufacturers' Association in 1874, which position he has held almost continuously ever since.

THE INSURANCE COMBINE AGAINST GASOLINE STOVES.

WITH most virtuous indignation our contemporary, the *Shareholder*, joins the hue and cry against "combines," and clamors loudly for their suppression. But, strangely enough, it blows hot and cold with the same breath; for while it inveighs against "unduly restraining traffic" in "any article or commodity which is an object of trade," and invokes the intervention of the Parliament of Canada in that behalf, with equal vehemence it points to a statute passed in 1879, which was evidently smuggled through in the interest of the insurance combination for the express purpose of unduly restraining traffic in gasoline stoves—an article or commodity which is, or would be, an "object of trade" unless the insurance combination can prevent it. And there are no means resorted to by any combination in existence in Canada to-day to restrain or unduly control traffic in any useful and necessary commodity more obnoxious than those made use of by the insurance combination to suppress the use of gasoline stoves.

As judges of the details of the business in which they are engaged, it goes without saying that the insurance companies have a right to decline to accept any fire risks where gasoline stoves are used; and although long and valuable experience in that direction has demonstrated the fact that gasoline stoves are no more dangerous than wood or coal stoves, risks including the use of which are freely taken and without any objection whatever, no one denies the right to these companies to decline such risks if they see proper to do so. But we denounce it as an act of gross injustice that any law should be placed on the statute books denying to the people of Canada the right to use gasoline stoves; and it was clearly a piece of sharp practice on the part of those who procured the enactment of the law.

In 1879, when the law referred to by the *Shareholder* was passed, gasoline stoves were unknown in Canada. But they were not unknown in the United States, for at that time they were coming rapidly into use, and attaining a popularity which has since become phenomenal. The same frozen and inflexible conservatism which now characterizes the opposition of Canadian insurance companies against the use of the article prevailed there, and it was but by persistent fighting that these obsolete ideas were overcome, and the opposition to the use of gasoline stoves withdrawn. The concession, if it may be so called, was not graciously accorded, and no one supposes that it will be accorded in Canada until similar pressure is brought to bear upon the insurance companies here. There were old and exceedingly respectable companies doing business in the United States who declared that they would never accept gasoline stove risks; but there were also other companies there

who were not so frozen and inflexible in their conservatism, but were imbued with more liberal and sensible ideas, and who saw profit in accepting such risks—and accepted them—and to avoid being left out in the cold the others yielded to the inevitable, and followed the lead of their more enterprising competitors.

This fight against gasoline stoves was at its fiercest ten or a dozen years ago, which period even the most conservative of insurance companies might consider sufficiently long to fully determine whether the granting of the concession was wise and judicious or not; and the fact that after a gradual and more or less gracious yielding all along the line, there is now absolutely no prohibition of the use of gasoline stoves anywhere in the United States proves that the insurance companies there do not deem them any more hazardous than any other stoves in use. The annual production of gasoline stoves in the United States is considerably over 100,000, and this immense manufacturing industry could not possibly exist if the users of the article could not effect insurance upon their property.

With a foresight very much keener than their hindsight, Canadian insurance companies saw that an article that was attaining such popularity in the United States would sooner or later find its way into Canada; and, taking time by the forelock, procured the passage of the law of 1879 making the sale of naphtha, or gasoline illegal. As we have shown, these insurance companies had the right to decline accepting gasoline stove risks (there were no gasoline stoves in Canada at that time), and their combining together "to prevent the purchase, sale, transportation and supply" of gasoline, and to "unduly restrain the traffic in that commodity," was evidently against the interest of the trade and commerce of the country; and such being the case, it is clearly the duty of the Parliament to repeal the law that was passed under a misapprehension of facts, and in the exclusive interest of one of the most oppressive combinations existing in the land.

COMBINATION VERSUS MONOPOLY.

MR. CLARK WALLACE'S Combines Committee "reported" to the House of Commons, and now it is exceedingly fashionable among newspapers to denounce "combinations" of all sorts, good and bad alike, and demand their total suppression and extinction. This comes of the fact that these newspapers imagine that the words "combination" and "monopoly" mean the same thing, and they thus use them interchangeably. In a previous issue of this journal we showed that there is no necessary relation between these; and we also showed that the wonderful successes of modern business depend upon just such combinations as are being so unmeaningly denounced to-day.

Continuing the line of argument drawn chiefly from Mr. S. C. T. Dodd's pamphlet, heretofore alluded to, it is shown that the contention of John Stuart Mill is that the only hope of breaking up the separation of mankind into two classes—employer and employed—and giving the employed an interest in the business in which they may be engaged, is in the extension of the combination or partnership principle; and he urges that all legal obstacles to such combination should be taken

away. Mr. Mill says in his Political Economy "when markets are large, and a large opening for exportation exists, large systems of business are effective. Large establishments are substituted for small ones, the change from small to large being wholly beneficial. It may have some drawbacks, but when once the system of large establishments is established, the change from large to larger systems is an unqualified benefit. * * The progress of the productive arts requiring that many sorts of industrial occupations should be carried on by large and larger capitals, the productive power of industry must suffer by whatever impedes the formation of large capitals through the aggregation of smaller ones."

Henry C. Carey, in the constitutional convention of Pennsylvania in 1873, proved by history, experience and reason that "the more perfect the power of association, the greater the power of production and the greater the proportion of the product which falls to the laborers share;" and the Legislature of that state has enacted a law providing that any three or more persons may associate as a corporation for any lawful purpose.

Prof. Sumner in "What Social Classes owe to Each Other," says: "There is every indication that we are to see new developments of the power of aggregated capital to serve civilization. Joint stock companies are yet in their infancy; and incorporated capital, instead of being a thing which can be overturned, is a thing which is becoming more and more indispensable. * * Aggregated capital will be more and more essential to the performance of our social tasks. * * This tendency is in the public interest. * * We are to see the development of the country pushed forward at an unprecedented rate by an aggregation of capital, and a systematic application of it under the direction of competent men. This development will be for the benefit of all."

No one pretends that combination is an unmixed blessing. It is attended with, or may give rise to, greater or less evils, and it is the duty of legislators to keep a watchful eye upon, and to repress the evils. Every force is a blessing, although it may be used for evil as well as for good. We do not abolish guns because they are used for murderous purposes. We do not prohibit the manufacture of dynamite because it is used by anarchists. We use steam notwithstanding its dangerous qualities. To talk of suppressing or preventing combinations is both childish and futile. To pass laws which will prevent them from accomplishing bad results is the most important purpose towards which legislation can be directed.

SPECIAL ADVERTISEMENTS.

To RENT.—Two large flats on Pearl St., Toronto (in rear of *Mail* building), well lighted, steam heated, and with available steam power up to 10 H. P. Apply at 10 Pearl Street.

THE owners of Patent No. 24,369, dated June 21st, 1886, for the manufacture of Sodium and Potassium, are prepared to grant licenses in Canada, or to negotiate for the sale of the Patent. HENRY GRIST, Patent Agent, Ottawa.

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EDITORIAL NOTES.

DISCUSSING the early closing of stores in Toronto, the *Shoe and Leather Journal* says:—"Of all classes of people the labor societies are the most unreasonable and inconsistent." Our youthful contemporary has uncovered a large and valuable chunk of solid truth.

A FEW days ago at Duluth, Minn., the steamer *Mont Eagle* was made fast at the dock adjoining a grain elevator, receiving spouts from which were adjusted to the vessel, 50,200 bushels of wheat loaded into her, and she was away from the dock again in just forty-nine minutes.

MR. HENRY GEORGE is to be expelled from the Twenty-third Assembly District Association of the United Labor party of New York, for dickering with the Democrats by advocating the re-nomination of President Cleveland on a Free Trade platform, and urging the United Labor party to assist in his re election.

THE *Illustrated Buffalo Journal*, published by the Buffalo International Fair Association, the first number of which has just reached this office, contains a brief history of the Toronto Exposition, with a view of the main building at the Fair Grounds, and a good likeness of Mr. H. J. Hill, manager and secretary of the Association.

A MANUFACTURING concern in Cincinnati have recently introduced a novel apparatus for lighting, heating and cooking. It is a gas machine in which the gas is generated from gasoline by air pressure, a weight furnishing the power to give the desired pressure. The machine is considered entirely safe for domestic use, and is made in different sizes.

THE fire insurance combination is a greedy and selfish set. The companies will not place risks where gasoline stoves are used, which risks they have a right to refuse, and they threaten that those who use gasoline shall be prosecuted under an obsolete law that they procured to be smuggled through the legislature long before gasoline stoves were known in Canada.

THE explosion of a coal oil lamp caused the destruction by fire of sixteen places of business in the heart of the town of Wallaceburg, Ont., a few days ago. In the State of Massachusetts, where there are thousands of gasoline stoves in use, out of the 811 known causes of fires occurring in dwellings there last year, 107 fires were caused by coal oil lamps, and not one from the use of gasoline stoves.

THERE is nothing new about the cigarmakers' strike. The manufacturers remain, with one exception, inactive, and the strike board meets as usual. The pickets have nothing to do. — *Empire*. Badly mistaken. Picket duty is an important

function with Knights of Labor and labor unions, the most important part of which is to draw pay for doing picket duty, whether the pickets have anything to do or not.

THE Buffalo International Fair, on September 4th to 14th, 1888, will, by a singular coincidence of dates, occur upon the one thousandth anniversary of the introduction of fairs among English-speaking people. Alfred the Great inaugurated the first fair and cattle-show in England in the fall of the year 888—probably in September, as that month has been for centuries the popular season for English country fairs.

THE Canadian exhibits of the Buffalo International Exposition will be the most extensive ever shown in the United States. The circuit of Canadian fairs has been so arranged as to accommodate the dates of the Buffalo Exposition, and it is expected to have nearly all of the exhibits of the Toronto Exposition, which opens when the Buffalo fair closes. The management is also already assured of several valuable European exhibits.

THE *Shareholder* regrets that the Dominion Parliament adjourned without passing some "repressive legislation" against "combinations;" and it speaks of combinations "thwarting justice of her rights." Our worthy contemporary should be aware of the fact that it is impossible, unjust and unconstitutional to suppress or prevent combinations. The use of combinations for illegal purposes should be "repressed," but combinations—never.

MR. PHILLIPS THOMPSON is an exhaustive writer and a fluent speaker on the Henry George theory of land values and taxation. Mr. Thompson, however, is under no legal obligation to practice what he teaches, and, according to the *Hamilton Spectator*, he don't do it. Mr. Thompson has been speculating in Toronto real estate, making money thereby, and appropriating the "unearned increment" to his personal use. But then they all do it.

THE Toronto Industrial Exhibition Association have sent us a beautiful mounted hanger, in which it is announced that Canada's Great Industrial Fair and Agricultural Exposition for 1888, will open at the Association grounds in this city on September 10th, and remain open until September 22nd next. The design and execution of the picture is fully up to any that the Association have heretofore issued, and is very ornamental and artistic. It was gotten up by the Toronto Lithographic Company.

A FEW days ago about five hundred of the Detroit Drydock Company's workmen struck because the company refused to discharge a man who did not belong to their union, and was not a Knight of Labor. It is surprising how afraid five hundred men can become of inbibing some ideas of independence from the presence of one man who only desires to earn an honest living. But perhaps these men were instructed by their masters, the jawsmiths and walking delegates of their union, to strike, and they dared not disobey.

MR. C. H. TUPPER, M.P. for Pictou, N.S., has been appointed Minister of Marine and Fisheries in place of Hon. Mr. Foster, appointed Minister of Finance. His appointment will be acceptable to the country in every respect. Mr. Tupper has had a sufficiently long experience in Parliament to give him a thorough grasp of political affairs. He is a polished and effective speaker, and his early training as a Maritime Province man admirably fits him for the position to which he has been called. Possibly he is the youngest man who ever sat in the Dominion Cabinet.

Progress explains that certain members of the Labor Commission, while in St. John, N.B., in organizing trades unions and assemblies, did so "when the Commission was not in session." It does not explain, however, that the Commission might have been in session, attending to the business for which it was appointed, if these members of it had not been otherwise engaged organizing their labor societies. Perhaps the Commission would not have found it necessary to have lingered so long in St. John, drawing per diem pay and incurring hotel expenses, if the time spent in "organizing" had been devoted to the business of the Government.

THE *Labor Standard*, of Patterson, N.J., charges that Grand Master Powderly, of the Knights of Labor, not only draws seventeen dollars a day out of the treasury for his own use, but has also drawn extras to the amount of several thousand dollars. It also charges that Mr. Powderly's fellow managers are benefiting themselves in the same way from the same source. The *Labor Enquirer*, of Chicago, the editor of which was at one time a member of the executive board of the Knights of Labor, charges that the funds of the Order have been rifled until the treasury is bankrupt. It is not stated how much of the swag the jawsmiths of the Order doing business in Canada are getting.

"CANADA does not want trade combinations, and Canada will crush them out before they assume the proportions and power which they exercised for evil in the neighboring republic."—*Shareholder*. How about crushing out the insurance combination that procured the passage in 1879 of the sumptuary law against the use of gasoline? Or is it that the insurance combination has already assumed "proportions and power" which place it beyond the reach of Canada's crushing force? Will our sprightly contemporary the *Shareholder* express an opinion as to whether the combination is not now, and has been for years, exercising its power for evil in the direction indicated?

A FIRE insurance company of New York have sent for a map of the city of Toronto showing the water service, fire plugs, etc., and enquiring how the city is protected from fire. They want this information to enable them to judge if they can take Toronto fire risks at lower rates than the companies embraced in the Fire Underwriters' Association. The information has been sent, and it is to be hoped that a shaking up will soon be given to the old fogies now engaged in the business here. What Toronto and all Canada needs in this direction is

the infusion of some good red blood and healthy gray brain matter into the wretchedly drowsy insurance system now prevailing in this country.

THE Buffalo Board of Fire Commissioners have virtually condemned the use of natural gas for heating houses. They recommend that the supply of natural gas, now used by 3,000 families in that city, be cut off, since no adequate safeguard has been provided for preventing the recurrence of such explosions as caused the destruction of a valuable church edifice there recently. But it must be borne in mind that it is one thing for these commissioners to condemn, and another thing for these 3,000 families to abandon the use of natural gas for the purpose indicated. Unlike Canada, there are plenty of insurance companies doing business in the United States who take risks where natural gas is used, as even where gasoline stoves are used.

At a meeting of the Conservative Workingmen's Association of Ottawa, held a few days ago, Mr. Carson, one of the Labor Commissioners, stated that the Ontario Factory Act was practically useless—that it was not and could not be enforced. This is startling news indeed, and particularly so, we should think, to Mr. Barber, the Inspector under that Act. The general impression in Ontario, among both manufacturers and workmen, is that the law is good and sufficient, and that its provisions are very generally complied with. It seems that quite a large proportion of the members of the Labor Commission resolved themselves into organizers for the Knights of Labor and trades unions; and while drawing ten dollars a day from the Government for their services, and three dollars and fifty cents a day to pay hotel bills, besides having their other travelling expenses paid, instead of attending to the work assigned them, they are agitating the whole country, or trying to do so, telling of the "wrongs" done to labor by capital.

THE Port Hope *Guide* noticing the fact that a manufacturing concern in Woodstock were giving employment to several hundred men, and that their works were being run day and night, filling orders, plaintively inquires "Why is it we cannot have an establishment like that in Port Hope?" The *Guide* is one of the bitterest and most uncompromising grit papers in Canada, and taking its cue from the *Globe*, wants to remove every vestige of tariff protection from Canadian manufacturing industry. Why should it want any manufacturing enterprise whatever established in Port Hope, when it is so opposed to all that makes manufacturing possible anywhere in Canada? It wants Canada to have just such free trade as exists in England. In a recent issue of the *Guide* an editorial showed that "There are in England at this time 347 female blacksmiths who actually swing heavy hammers, and 9,138 women employed in nail-making." Canadian women are not blacksmiths nor nail-makers, but they might be if Canada had just such free trade as prevails in England, and which the *Guide* is so anxious to bring about.

GASOLINE is the light product of petroleum. It is the naphtha part, and contains no oil. In the process of refining the crude oil, the gasoline is separated, redistilled and refined. There are different gravities of the article, from 63° to 90°, known by dif-

ferent names. The heaviest, or benzine, is of 63° gravity; from 63° to 70° it is known as burning fluid, and from 74° upwards it is called gasoline. Only 74° deodorized gasoline is suitable for use in vapor, or gasoline stoves. Being very light it evaporates quickly when exposed to the air, and very little heat is required to vaporize it. Gasoline takes fire readily from a touch of flame, but it will not explode. Vapor escaping from an open can of gasoline, in any ordinary room, is harmless, but whenever a large surface of it is exposed to the air, or when it is scattered about in considerable quantities, in such a way as to become quickly vaporized, the vapor, or gas, will become ignited some distance from where it was spilled, and therein lies all the danger arising from its use. Gasoline should never be handled near a fire or lighted lamp or candle. Vaporized gasoline is heavier than the atmosphere, and wherever it may exist, it lies close to the floor. Gasoline should be stored in a shed, or summer kitchen, or outhouse, where there is always a circulation of air, but it should never be kept in a cellar. In filling the tank of a gasoline stove, care should be taken that it be done in daylight, and never when any artificial light is near. These facts being remembered, and proper precautions being observed, there is no more danger in the use of gasoline stoves than in coal or wood stoves.

SECRETARY of the Treasury, Fairchild, in a recent speech, stated that there was about \$700,000,000 in the custody of his Department, of which only about \$300,000,000 belongs to the United States, the rest being held on deposit to redeem gold, silver and legal tender certificates and national bank notes. He said also that there is \$110,000,000 in the treasury "free and clear from any possible liability—a useless surplus forced out of men's pockets by reason of excessive tariff taxes." Perhaps. The United States Government owes debts aggregating nearly \$1,400,000,000. There are \$230,000,000 bonds outstanding which will fall due in three years, and \$750,000,000 or more of bonds that will not mature till later. There is a debt of over \$346,000,000 now outstanding which was due years ago, and which should have been paid just as soon as the Government had the money with which to do it. But instead of paying this debt the Government has kept it in existence, and Congress has passed laws preventing any reduction in it. Treasury officials insist upon keeping \$100,000,000 of gold in the Treasury to redeem a debt which Congress has declared must not be redeemed. It seems rather surprising that while the United States Government professes to hold a surplus of \$110,000,000, it owes a debt of \$346,000,000, and has \$230,000,000 of bonds outstanding, which will fall due in three years. With the \$100,000,000 reserve held against the legal-tender notes, there is only \$210,000,000 in the Treasury which the Government can apply to the payment of its debt. If it undertook to pay off the debt now due—\$346,000,000—that \$210,000,000 surplus would be wiped out and there would still be \$136,000,000 of national debt to be provided for, which with the \$230,000,000 4½ per cent. bonds would make \$366,000,000 of debt to be paid off in the next three years.

WHEN Free Trade documents purporting to come from American sources spell labor "labour," it is safe to say they were printed in England, and probably were issued at the expense of the Cobden Club. Such documents are now being circulated in this country.—*Stoves and Hardware, St. Louis.*

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Manufacturing.

This department of the "Canadian Manufacturer" is considered of special value to our readers because of the information contained there in. 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. SIDNEY SMITH, Fort William, Man., will start a machine shop.

MESSRS. BUZZELL BROS., Cowansville, Que., will establish a cigar factory.

MR. ANDREW BOUDREAU, Chatham, N.B., is building a sash and door factory.

MESSRS. MORTON, ALEXANDER & MORTON, Winnipeg, Man., will start a new tannery.

MR. GEO. RILEY, Winnipeg, Man., will establish a factory for making horse collars.

MR. G. N. NESBITT, Cowansville, Ont., will erect a large grain elevator at that place.

MR. LAWRENCE MURPHY's flax mill at Seaforth, Ont., was destroyed by fire May 17th.

MESSRS. MCLEOD & Co., High Bluff, Man., are putting new grist machinery into their mill.

THE Canada Jute Company, Montreal, will increase their capital stock from \$50,000 to \$100,000.

THE Amherst Boot and Shoe Company, Amherst, N.S., are putting steam power in their factory.

THE Preston Carriage Company, Preston, Ont., has been incorporated with \$10,000 capital stock.

MESSRS. McCULLOCH & Co., Rapid City, Man., are putting some new machinery into their flour mill.

THE Electric Construction & Power Company, Montreal has been incorporated with \$100,000 capital stock.

THE Johnson Magnetic Iron Paint Company, Montreal, has been incorporated with \$60,000 capital stock.

THE Delhi Fruit Canning Company, Delhi, Ont., will have their new factory in operation at a very early day.

MR. JOHN MOFFATT, Berlin, Ont., can give information regarding the large grain elevator to be built in that town.

THE Londonderry Iron Company, Londonderry, N.S., have 600 hands employed in their coal mines at that place.

MESSRS. CASAVANT & FREERE, St Hyacinthe, Que., are building a \$30,000 organ for Notre Dame church, Montreal.

THE Canadian Pacific Railway Company will build 1,500 freight cars and 200 locomotives at their works at Montreal.

THE lobster cannery of Messrs. Pickert & Co., Cow Bay, N.S., was destroyed by fire May 22. It will probably be rebuilt.

MESSRS. COOK, BINDER & Co., Toronto, pickle and preserve manufacturers, are putting a \$6,000 addition to their factory.

MESSRS. MATHERS & SAUCIER, Stony Point, Ont., will remove their grain mill to Amherstburg, Ont., if a \$1,000 bonus is given them.

IN boring for natural gas at Chippewa, Ont., near Niagara Falls, a few days ago, a fine flow was struck at a depth of only forty-nine feet.

MR. JAMES CROSSEN, Coburg, Ont., has contracted with the Canadian Pacific Railway Company for the construction of 1,000 box cars.

THE Hamilton Brass Manufacturing Company, Hamilton, Ont., are adding several thousand dollars worth of new machinery to their plant.

MR. WM. HENDERSON's large flour mill and grain warehouse at Iona, Ont., were totally destroyed by fire May 25th. Loss about \$10,000.

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" . . . Whole subject clearly though briefly explained without unnecessary verbiage, yet scientific enough to give points to the experienced accountant. . . ."—*Cosmopolitan Shorthand.*

THE Royal City Planing Mills Company, Westminster, B.C., have recently been making some large shipments of laths to San Francisco, Cal.

MR. F. W. HART, furniture manufacturer, Vancouver, B.C., is erecting a large two story furniture factory on False Creek, near that place.

THE Globe Extract Works, Detroit, Mich., have established branch works at Amherstburg, Ont., from which their Canadian trade will be supplied.

MESSRS. MURRAY & SHAW, Flat Lands, near Chatham, N.B., are building a shingle mill which will be equipped with the newest and best machinery.

MR. F. GOBEL, late of Mitchell, Ont., is preparing to start a knitting factory at New Hamburg, Ont., in which some twenty hands will be employed.

MR. J. H. STILL, late of Tilbury Centre, Ont., has been granted a bonus of \$6,000 by the town of St. Thomas, Ont., to remove his works to that place.

MESSRS. S. R. WARREN & Co., organ builders, Toronto, have just finished a fine organ built by them for St. Paul's church, International Bridge, Ont.

THE pumping and engine house of the Collingwood Dry Dock and Ship Yard Company, Collingwood, Ont., was destroyed by fire May 17th, loss about \$1,500.

MR. FRANK GERBETH, late superintendent at Mr. James Wattées woolen mills at Valleyfield, Que., will own and operate a similar factory at Kemptville, Ont.

MR. JOEL CLARK, JR., proprietor of the Westport Woolen Mills, Westport, Ont., has doubled the capacity of his factory by the introduction of new machinery.

MESSRS. WALLACE & SON, Hamilton, Ont., have been awarded the contract for furnishing all the sewer pipe that that city will require during the current year.

THE Napanee Cement Works, Napanee Mills, Ont., have been overhauled and put in thoroughly good condition, and work in them on a larger scale than ever will be begun at once.

MESSRS. KING BROS., Whitby, Ont., have recently added to their business the manufacture of cordovan and porpoise laces, having imported machinery specially for the purpose.

MESSRS. WM. LEWIS & SONS, St. John, N.B., builders of iron bridges, etc., are very full of work constructing iron bridges, old rail girders, etc., for the Intercolonial Railway

MESSRS. S. LAUTENSCHLAGER and Amos Weaver, Berlin, Ont., have obtained a patent for a button faced with fabric, but having a rim of ivory or bone so that the fabric does not wear.

MR. THOS. P. HODGSON, Alliston, Ont., manufacturers of pumps, is constructing a 14-foot double-headed Challenge wind-mill for pumping purposes for Dr. R. S. Cheffie, Beeton, Ont.

THE Montreal Car Wheel Company, Montreal, has been incorporated with \$25,000 capital stock for the purpose indicated by its name. The company's works will be at Lachine, Que.

MR. F. GOEBEL, Hamburg, Ont., has completed his new knitting factory, which is equipped with first-class machinery throughout, and which will give employment to twenty-five hands.

THE Atlantic Brown Stone Company, Sackville, N.B., have been incorporated with \$24,000 capital stock for the purpose of working the brown stone quarries at Wood Point, that province.

THE Nova Scotia Steel Company, New Glasgow, N.S., have recently been making considerable additions and improvements to their works, included in which is an 85x80 foot iron building.

MESSRS. B. CALDWELL & Co., Lanark, Ont., are placing a large Wheelock steam engine in their Clyde Woolen Mills, that place, manufactured for them by Messrs. Goldie & McCulloch, Galt.

AT the recent annual meeting of the Westminster Woolen Mills Company, New Westminster, B.C., Messrs. H. Elliott was elected president; D. Drysdale, treasurer, and J. N. Draper, secretary.

MR. P. JACOBI, proprietor of the Hamburg Cordovan Tannery, Acton, Ont., has recently equipped his works with the best machinery and appliances, and they are now in complete working order.

THE Kalamazoo Carriage Works, Kalamazoo, Mich., have refused a \$10,000 bonus to establish branch works at Windsor, Ont. It is understood that they will establish such works at Woodstock, Ont.

THE Cummings woolen factory, at the Otonabee bridge, will soon be in full blast. The new brick addition at the rear is about finished and the new machinery will be placed in position.—*Peterboro' Review.*

MESSRS. BROWN BROS., Toronto, have sold all their standing pine and oak timber at Limehouse station, near Acton and Georgetown, Ont., to Messrs. Taylor Bros., of Toronto, who have erected a steam sawmill, and work will be proceeded with at once.—*Guelph Mercury.*

MITCHELL'S new woolen mill, Madoc, Ont., was "raised" last week, and is now being rapidly pushed forward in readiness for the new machinery. It will be completed early in June.—*Belleville Intelligencer.*

A YANKEE has invented a bustle which, when sat upon, plays popular tunes until the wearer rises. Now all that is needed in this line is a bustle that will pare potatoes and administer soothing syrup to the baby.

DURHAM, Ont., people are going to submit another by-law to raise \$3,000 for Mr. McGowan's roller mill which is being built, the late by-law for which was washed owing to some technical irregularity.—*Markdale Standard.*

MR. J. Y. LYNTEN, Brantford, Ont., will establish a furniture factory in that place that will give employment to not less than twenty hands. His establishment will be exempt from municipal taxation for ten years.

MR. ALEX. GARTSHORE, Hamilton, Ont., whose cast iron pipe works are probably the most important in Canada, will make considerable additions to his works, and give employment to about fifty additional workmen.

MESSRS. WAGNER, ZEIDLIE & Co., West Toronto Junction, manufacturers of show cases, store fittings, etc., are having a switch run into their new works which will give them connection with all railways entering Toronto.

THE Hamilton Brass Manufacturing Company, Hamilton, Ont., will either make large additions to their present works, or find other and more commodious quarters to accommodate their large and rapidly increasing business.

AN agitation is on foot in Kemptville, Ont., to offer a bonus of \$5,000, the site, and exemption from taxation for ten years to Messrs. McDonald & McIntyre, of Oxford Mills, to move their roller mills to the former place.

Barnum Wire & Iron Works, WINDSOR, ONT.

Bank and Office Railing, in Brass, Iron, Steel, Bronze or Plated.
Church Metal Work, Altar and Pulpit Rails, Lecterns, etc.
Architectural Iron Work of all kinds. Stairs, Gates,
Fences, Stable Fixtures, Elevator Cabs and Enclosures, Grates, Fire Places, Andirons,
Fenders, Fire Screens, Hall and Newel
Lights. Fine Brass Castings, Fine
Forging, Nickle, Brass and Copper
Plating, Spinning, Artistic
Metal Work.

DESIGNS AND ESTIMATES SUBMITTED. SEND FOR CATALOGUES.

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For Specimen of Work, see Bank of Montreal, Toronto.

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Petrolia, - Ont.

BRANCH:
Stratford, Ont.

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— FOR —
CYLINDERS, ENGINES, SCREW CUTTING, ROLLS, WOOL,
HARNES, BELTS, SEWING MACHINES, ETC., ETC.

Black Oil (Summer and Winter), Pure Surface Oil, Paraffine Oils,
Red Oil 22° and 25°, and Benzine 62° Gravity.

STOVE GASOLINE, 72° GRAVITY.

IF YOUR DEALER DOES NOT KEEP OUR BRANDS, ORDER DIRECT.

MESSRS. P. W. ELLIS & Co., Toronto, manufacturing jewelers have received an order from Col. Bacon, Secretary of the Dominion Rifle Association, for the manufacture of the medals to be awarded at the forthcoming rifle matches.

A MAMMOTH flouring mill, with a capacity of 6,000 barrels, is to be built in Duluth, Minn. The building will be 100 by 200 feet, six storeys high, and is to cost \$130,000, with machinery worth \$400,000. When completed this will be the largest mill in the world.

MESSRS. LOMBARD & Co., Boston, Mass., have a large number of hands employed in the quarries at Bay Chaleur, near Clifton, N.B., getting out large quantities of stone from which they are manufacturing grindstones for the American market.

THE St. John Plow Company, Kalamazoo, Mich., will establish a branch factory at Woodstock, Ont. They will employ not less than twenty-five hands, and the town will grant them free water and exemption from municipal taxation for ten years.

THE Patterson & Bro. Company, Woodstock, Ont., manufacturers of agricultural implements, are now employing some 340 hands, divided into two gangs, who work day and night, the daily output being about twenty-five binders, besides other work.

MESSRS. VIGARS BROS, Port Arthur, Ont., are making considerable improvements in their sawmill. A Cunningham patent steam feeder, together with other additions to their machinery, will, it is expected, give the mill double the capacity it formerly had.

THE W. E. Sanford Manufacturing Company, Hamilton, Ont., are receiving very satisfactory orders from their agent in Japan for various lines of Canadian manufactured goods, encouraging the firm to believe there is a large field for Canadian goods in that country.

MR. F. STETSON, St. John, N.B., one of the leading lime burners in that city, expects to make 100,000 barrels of lime this season. He estimates the whole product of the kilns in that vicinity this season at 300,000 barrels, about double the quantity produced last year.

THE Electric Construction and Power Company, Montreal, is being organized with \$100,000 capital stock, the object being the introduction and development in Canada of electric transmission of power both for railway propulsion and the operation of machinery for all purposes.

MR. W. H. LAW, proprietor of the Central Bridge Works, Peterboro', Ont., has recently completed several iron bridges in various parts of the country. He is building two spans for Allandale, two for Warsaw, two for Wingham, and one across the Otonabee river near Peterboro'.

MR. L. L. BROWN, of Dunham, Que., has written to Mayor Shelton, of Calgary, Man., asking what inducements would be given to a man starting a tannery in Calgary. The Mayor replied that a free site would be granted and exemption from taxes, but no bonus would be given.

THE Brunette Saw Mill Company, Westminster, B.C., have recently built an 80 x 30 foot addition to their works, into which \$1,500 worth of new machinery will be placed, consisting of a flooring machine, lathing machine, bolter, and a machine for cutting box lumber out of slabs.

MR. W. H. HOWELL, Ottawa, will commence the manufacture of paper pulp from sawdust obtained from the Chaudiere lumber mills. He has rented the Bronson mill at the Chaudiere, which will be fitted up for the business. He has been granted exemption from local taxation for ten years.

MR. GEO. BRADFORD, of London, Eng., a well-known mining engineer, recently passed through Ottawa on his way to Winnipeg. He is the representative of an English syndicate with a capital of £500,000 sterling, and will examine the coal deposits of the North-West and report the results.

THE Oshawa Malleable Iron Company, Oshawa, Ont., manufacturers of all kinds of malleable iron used in the construction of agricultural implements and for other purposes, inform us that they are very full of work, and are running to full capacity to enable them to keep up with orders.

A COUPLE of Michigan men have taken out patents upon a band mill carrying two saws, which is designed to cut in both directions, so that no time is lost in the process of gigging back. A board is cut from the log in running one way by one of the saws, and another by the other saw in returning.

MR. M. D. WILSON, of Fostoria, Ohio, has decided to locate his factory for the manufacture of the Chance railway frog at Woodstock, if the encouragement given is at all satisfactory. A meeting will shortly be held, when the organization of the company will be completed.—*London, Ont. Free Press.*

THE Crompton Loom Works, Worcester, Mass., desire us to keep Canadian manufacturers posted as to the fact that they are manufacturers of wool combs, cotton, woolen, silk tape and carpet looms, etc. This company have an old and deservedly high reputation for the weaving machinery manufactured by them.

THE Dominion Bridge Company, Montreal, whose works are at Lachine, near that city, are constructing forty bridges in connection with the Cape Breton Railway, the shortest of which will be nineteen feet in length. The longest bridge will be 930 feet long. These bridges will, it is expected, be completed in September.

THE locomotive shops being built at Stratford, Ont., by the Grand Trunk Railway Company are estimated to cost \$110,000, the city giving a bonus of \$60,000 for the establishment of them there. The car shops being built at the same place by the same company will cost \$150,000, the city voting a bonus of \$60,000 towards it.

THE new woolen factory near Hilliard's Mill, Ont., to be occupied by Mr. E. B. Wilson, is being erected rapidly. The first story, of stone and brick, is about completed, and the other stories, which are to be of frame, will soon be put up. Mr. Wilson expects to begin operations about the first week in June.—*Peterboro' Review.*

THE Toronto Millstock & Metal Company, Toronto, call the attention of owners of mills and factories, and of all who are liable to have accumulations of old metals and machinery, rags, waste, etc., on their hands, to the fact that they are in the market as purchasers for all such materials, and invite correspondence relative thereto.

ESSEX CENTRE plows will hereafter be manufactured by Mr. W. Risdon, of the Erie Iron Works, St. Thomas, Ont., he having secured the right to do so from Mr. Milne. Mr. Risdon will ask a \$3,000 bonus as an encouragement, but will pay his taxes and water rates like any other citizen. He will employ twenty hands steadily.

Engines and Boilers

NEW DESIGN OF PLAIN SLIDE VALVE

SAW MILL ENGINES,

Leonard-Ball Automatic Cut-Off Engines,

STEEL BOILERS,

A SPECIALTY.

WE HAVE A QUANTITY OF SECOND-HAND COMMON ENGINES AND BOILERS FOR SALE CHEAP.

E. LEONARD & SONS, London, Can.

Engines and Boilers

FOR SALE,

- 1 "Goldie" Engine, 12 by 22 Cylinder.
- 1 75-Horse Power Locomotive Steel Boiler.
- 1 75-Horse Power Babcock-Wilcox Boiler.
- 1 75-Horse Power Tubular Steel Boiler.

All in Perfect Condition. Good as New.

WM. JOHNSON & CO.

St. John St., Montreal.

THE Chatham Navigating Company, Chatham, Ont., has been incorporated with \$40,000 capital stock, for the purpose indicated by the name. This is the company who own the fine steamer *City of Chatham*, recently built by the Polson Iron Works Company, Toronto, an account of which appears in another part of this paper.

MR. JOHN ABELL, proprietor of the John Abell Engine and Machine Works, Toronto, has built an Advance separator, and a Triumph traction steam engine which Messrs. Thomas P. Moran and Richard Paddock will operate in Wellington county the coming season. This machinery will be on exhibition in Guelph on June Fair day.

MESSRS. THOMAS McDONALD & Co., proprietors of the Queen City Galvanizing Works, Toronto, are manufacturing the "Perfection" inside edge four and six piece stove pipe elbow, which, they say, is unequalled in beauty, strength, and durability, every one of which is inspected before being sent out, and fully guaranteed to be as represented.

MESSRS. HEINTZMAN & Co., Toronto, manufacturers of pianos, support a band of which they are justly proud. The Heintzman band number thirty-three members, who, as was observed at the Industrial Exhibition here last fall, have obtained a proficiency as musicians which places them in the front rank with any other band in Toronto.

THE Rathbun Company, Deseronto, Ont., are manufacturing a terra cotta fire proofing material, intended for use in both new and old buildings, for which they claim superior advantages, and which is endorsed by many leading architects. They recommend it specially to mill and factory owners. Fuller particulars will be sent on application.

MESSRS. P. R. LAMB & Co., Toronto, suffered the loss of a considerable portion of their works by fire May 20th. The works were used for the manufacture of blacking, glue, etc., and the loss was about \$20,000. The rebuilding of the destroyed works was begun as soon as the fire was extinguished, and the whole establishment is in full operation again.

THE Metallic Roofing Company, Toronto, have recently been placing a quantity of new machinery in their works on Yonge St., noticeable among which is a very heavy power press for making their fire and storm proof metallic shingles. The company inform us that they are having a very large demand for this article from mill and factory owners.

MR. THOS. TOMPKINS, who built the C.P.R. station here, has been notified through Mr. Van Horne, that he has been awarded the contract for the erection of fourteen stores, an opera house and several dwellings in Vancouver. Mr. Tompkins will leave shortly for Vancouver to begin the work, and will take with him sixty or seventy men.—*Smith's Falls Record.*

MESSRS. G. F. HAWORTH & Co., Toronto, manufacturers of pure oak-tanned leather belting, display a cut on their advertising page in which a fac-simile is given of a main driving belt manufactured by them for the Kingston Electric Light Company, Kingston, Ont. This belt is 101 feet long, 24 inches wide, and of double thickness, cut from the solid part of the leather only.

MESSRS. F. E. DIXON & Co., Toronto, request the attention of mill owners and manufacturers to the "Star Rivet" leather belting manufactured by them, and which they guarantee to give thorough satisfaction. They show certificates from parties who have had the Dixon star rivet belts in constant use for fourteen years, and which are still good and in perfect order.

MESSRS. CREELMAN BROS., Georgetown, Ont., one of the largest and most successful concerns in Canada manufacturing knitting machines, are directing the attention of the public, through our advertising pages, to their goods. These machines are made in different styles and sizes to meet the requirements of all users. The firm will send further information on request.

MESSRS. J. E. ELLIS & Co., Toronto, have supplied one of their O Howard clocks to the town of Brantford, Ont., at a cost of \$730, giving a written guarantee that it will give good satisfaction for twenty years. Our Peterborough friends will excuse us for taking this clock from them, where we placed it in our last issue, and bestowing it upon Brantford, where it properly belongs.

MESSRS. CHUTE, HALL & Co., Yarmouth, N.S., manufacturers of organs, have just completed a large two-manual organ with twelve sets of reeds, for parties in Sheffield, England. This is a result from the fine exhibit of organs made by this concern at the recent Colonial and Indian Exhibition in London. The firm employ twenty-five hands and manufacture about thirty organs per month.

THE Ball Electric Light Company, Toronto, manufacturers of electric lighting apparatus, are operating their works to their full capacity getting out apparatus for quite a number of different manufacturing establishments. The rapid increase in the number of mills and factories that will be lighted by electricity in the shortened days of next winter over what has heretofore been the case, is quite remarkable.

MESSRS. McMILLAN, KITTREDGE & Co., Petrolia, Ont., are calling the attention of the trade to the stove gasoline—72° gravity—manufactured by them, and which is equal in all respects to that manufactured by the Standard Oil Company. Now that the warm weather has come gasoline stoves are in demand, and the question of where to obtain gasoline for use in them is answered by the concern here alluded to.

MESSRS. M. BEATTY & SONS, Welland, Ont., machinists and foundrymen, have just completed a steam shovel which is to go to work on the Lake St. John and Quebec Railway, about 180 miles from Quebec. The machine has a capacity to remove eight cubic yards of earth per minute. Messrs. Beatty are building another similar shovel for the same service, which they expect to have completed during this month.

MESSRS. WILLIAM JOHNSON & Co., Montreal, are offering for sale a number of steam engines and boilers which they say are all in perfect condition and as good as new. The enumerate one Goldie engine, 12x22 cylinder; one 75 horse power locomotive steel boiler; one 75 horse power Babcox & Wilcox boiler; one 75 horse power tubular steel boiler, etc. They will take pleasure in giving further information upon application.

MESSRS. THOMAS McDONALD & Co., proprietors of the Queen City Galvanizing Works, Toronto, are pressed with orders for the Walter's patent metallic shingle manufactured by them. Besides a large out of town demand, they are furnishing shingles for both roofing and siding for a large number of buildings now being con-

To Manufacturers!

THE LAND SECURITY COMPANY

OF TORONTO

Offer for sale or to lease a number of very desirable sites suitable for manufacturing purposes, among which they mention one lot containing 1½ acres, and one lot containing 1¾ acres on King Street west, on Subway, and on line of Grand Trunk, Toronto Grey & Bruce, and Canadian Pacific Railways. Also the contiguous property, containing about 3 acres, known as the Dominion Bridge Co's Works, having switches connecting with all the Railways entering Toronto. The Shops, Forges, Steam Power and Shafting are all in capital working order.

The Company have also lands where the main lines of the Grand Trunk (Northern) and Canadian Pacific Railways cross at Davenport. Switches are obtainable from either or both roads, and abundant space can be afforded for very extensive works; and for the erection of all dwellings that may be required by workmen.

Portions of these lands are in York Township whence suburban and street car services will give frequent access to the city.

WM. I. MACKENZIE,

COMPANY'S OFFICES IN TORONTO,
No. 7 VICTORIA STREET.

Manager.

W. C. HIBBARD, MONTREAL, MANUFACTURER OF

Campbell
Water-proof
Wires.

Annunciator
and
Office Wire.

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Covered
Magnet Wire.

Aerial and Sub-
marine Cables.

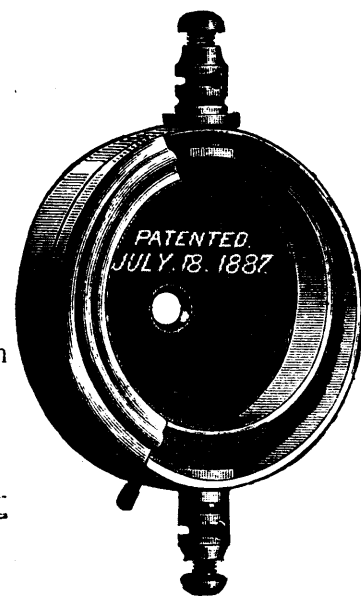
Superior
Water-proof
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Telephones.

Hotel & House
Annunciators.

Gas Lighting
Apparatus.

Burglar Alarms.



AUTOMATIC FIRE ALARM APPARATUS

And all Electrical Appliances and Supplies.

structed in this city, among which is a large warehouse at the Gurney Stove Works, on King street west.

THE Barnum Wire & Iron Works, Windsor, Ont., request that visitors to Toronto go to the Bank of Montreal, at the corner of Yonge and Front streets, and inspect the office fittings therein, which were manufactured and put in by them. They claim that these are the most beautiful and ornamental fittings in any bank or other place of business in Canada. Mr. W. H. Booth, 65 Front street west, is their Toronto representative.

FISHERY Inspector Rogers, of Halifax, N.S., has recently returned from Chicago, where he went on investigation of the Illinois Fishery Commissioners. As a result of the visit the Rogers improved fish-way ladder has been officially adopted for that State. Mr. Rogers has arranged to construct two hundred ladders in that State as rapidly as possible. This ladder was previously adopted by Pennsylvania. The contract will aggregate \$150,000.

MESSRS. G. W. CORNWALL & Co., Huntingdon, Que., successors to the Huntingdon Organ Company, who recently purchased the plant and stock of that company, have been voted a bonus of \$2,500 by the Huntingdon municipality, and exemption from local taxation for fifteen years. Messrs. Cornwall & Co., are now erecting a new factory which will enable them to manufacture 150 organs per month, and give employment to a large number of hands.

MESSRS. E. LEONARD & SONS, London, Ont., present themselves to our readers in an attractive card in which they refer to some of the machinery of their manufacture which they offer for sale. Included in this are new designs of plain slide valve sawmill engines; Leonard-Ball automatic cut-off engines; steel boilers, etc. They also have on hand a quantity of second-hand common engines and boilers which they offer for sale at very low prices. Catalogues sent on application.

THERE are now 1,350 packing concerns in the United States, of which 633, or nearly one-half, are in the State of Maryland, and 134, the next largest number, in Maine. The Maritime provinces are well adapted for the business of canning, not only lobsters, mackerel, clams, and other fish, but corn, and many small fruits. This industry is of recent growth here but already it has reached considerable proportions, and it is capable of expansion.—*Moncton, N.B., Times.*

MR. W. MASTERSON, Brantford, Ont., a member of the fire department of that town, has invented a fire alarm system for which great excellence is claimed. By an ingenious arrangement, when the button in the alarm box is pushed the bell at the central station is not only rung, but a disc becomes exposed on which is the number corresponding with the number of the box from which the alarm is sent. The cost of the system is only \$350 against \$1,000 for other and less efficient alarms.

MR. W. MEARNS, the old and enterprising King street hardware merchant, has just received a new press for manufacturing metal shingles for roofing. The press was manufactured by the Masson Manufacturing Co., under the supervision of Mr. Billings, and is an ingenious and most important addition to Mr. Mearns' business. We understand it is the only press of the kind outside of city establishments, and it will allow Mr. M. to wonderfully facilitate this branch of his business.—*Oshawa Vindicator.*

THE Monarch vapor stoves, manufactured by the McClary Manufacturing Company, London, Ont., are especially serviceable for summer use, having capacity to do the entire work of an ordinary cook stove, and with the absence of heat, so desirable in hot weather. These stoves are exceedingly simple in operation, and any domestic who has sense enough to go in the house when it rains pitchforks can be taught in one lesson to manage these stoves. They are not as dangerous as the ordinary coal oil lamp.

THE Smith's Falls Malleable Iron Works, of which Mr. Wm. H. Frost is proprietor, have recently been considerably enlarged, and now give employment to over 100 hands. The capacity of production of malleable iron castings has also been greatly enlarged—from 60 tons a month to 110 tons. The extreme ductility of the malleable iron goods manufactured at these works is shown in the fact, as witnessed by the writer, that pieces of it can be welded together similar to wrought iron, and bent into any possible shape.

MESSRS. R. WOON & Co., Oshawa, Ont., manufacturers of agricultural implements, etc., announce that they have purchased all the patterns, templets, drawings, etc., of the late Joseph Hall Machine Works of that town, together with all necessary machinery to carry on a first-class machine shop. They have secured a large and suitable building—what was known as the Joseph Hall malleable

THIS SPACE IS RESERVED FOR

JOHN ABELL,

MANUFACTURER OF STEAM ENGINES
AND BOILERS AND AGRICULTURAL
AND OTHER MACHINERY.

TORONTO MILL STOCK & METAL CO.

Wholesale Dealers in and Graders of

SCRAP IRON, OLD METALS

PAPER STOCK,
WOOLEN RAGS,

COTTON AND WOOLEN WASTE,

ETC., ETC.

ESPLANADE, NEAR BAY ST.,

Telephone 1319.

TORONTO, ONT.



NOTICE.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Indian Supplies," will be received at this office up to noon of THURSDAY, 7th JUNE, 1888, for the delivery of Indian Supplies during the fiscal year ending 30th June, 1889, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, etc., duty paid at various points in Manitoba and the North-West Territories.

Forms of tender containing full particulars relative to the Supplies required, dates of delivery, etc., may be had by applying to the undersigned, or to the Indian Commissioner at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods) separately or for all the goods called for in the Schedules, and the Department reserves to itself the right to reject the whole or any part of a tender.

Each tender must be accompanied by an accepted Cheque in favor of the Superintendent General of Indian Affairs on a Canadian Bank, for at least five per cent. of the amount of the tender which will be forfeited if the party tendering declines to enter into a contract based on such tender when called upon to do so, or if he fails to complete the work contracted for. If the tender is not accepted, the cheque will be returned.

Each tender must, in addition to the signature of the tenderer be signed by two sureties acceptable to the Department for the proper performance of the contract.

The lowest or any tender not necessarily accepted. This advertisement is not to be inserted by any newspaper without the authority of the Queen's Printer, and no claim for payment by any newspaper not having had such authority will be admitted.

L. VANKOUGHNET,
Deputy of the Superintendent-General of
Indian Affairs.

Department of Indian Affairs,
Ottawa, May, 1888.

iron shop—as an annex to their works, and are now in fine condition to meet all the requirements of their extensive trade.

It has been our pleasure to several times chronicle the fact of export orders of their celebrated "Lance Tooth" saws having been shipped to the United States by Messrs. Shurly & Deitrich, of Galt, Ont. We now learn that Simmons Hardware Co. of St Louis, Mo., have placed an opening spring order with the firm for 1,700 cross-cut saws of the Lance Tooth pattern. It is certainly a just cause for a little crowing when we consider that our Canadian-made saws are displacing those of American make in their own market.

THE Dominion Government have appropriated \$75,000 towards the construction of a marine dry dock at Kingston, Ont. The need of such a dock at that place has long been felt. Heretofore vessel owners have had to go to Oswego and other American ports when it was necessary to have repairs made, this meant the expenditure of a great deal of Canadian money among American mechanics, to the detriment of equally skilled men in our own country. The Government wisely recognized the situation, and the result is the placing of the sum mentioned in the estimates.

MESSRS. CAMPBELL, STEVENS & Co., are remodelling their St. Thomas mill. They are changing it from the long system of grinding to the short, three-break system. Several new roller machines, centrifugal reels, cyclone dust collectors, and other machinery will be added. All the halting reels, scalpers, purifiers will be stripped, and will be reclothed with the best Dufour balling cloth. When completed it will be one of the best equipped mills in the Dominion with a guaranteed capacity of 450 barrels of flour in twenty-four hours continuous run.—*Chatham, Ont., Planet.*

MESSRS. A. ROBB & SONS, Amherst, N.B., claim to be the first to introduce into Canada a valuable practice, which has for some time been followed by many manufacturers of steam boilers in the United States, viz.; insuring every boiler which they turn out against explosion for one year. This is effected with a reliable company—The Boiler Insurance and Inspection Company of Canada, whose business card appears in another page in this paper—who, in addition to insuring the boilers, make periodical inspection in order to prevent carelessness in the care and management of them.

THE Boiler Inspection & Insurance Company of Canada, whose head office is at 2 Toronto street, Toronto, invite the attention of all steam users to the fact that they insure against explosions of steam boilers and the damages arising therefrom. Sir Alexander Campbell, K.C.M.G., Lieutenant-Governor of Ontario, is president of the company, John L. Blackie, Esq., vice-president, Mr. Geo. C. Robb, chief engineer, and Mr. Alex. Fraser, secretary-treasurer; and the fact that these well known gentlemen comprise the working staff of the company, is sufficient guarantee of its character. The company are also consulting engineers and solicitors of patents.

THE big timber raft now being built at Joggins, N.S., will probably be launched sometime during this month. She will be 600 feet long, 54 feet beam and 38 feet deep, and will be constructed of 25,000 spruce trees, the sticks averaging 28 feet in length. The

vessel will carry six masts, each built twelve feet into the hull, and fitted with spring stays and shrouds. She will be square rigged, with fore and aft sails also, and will be fitted with anchors, rudder and steering gear. A steamship will tow her, with a powerful tug alongside as a convoy.

THE Gurneys & Ware Scale Company, Hamilton, Ont., as will be seen by reference to their card on this page, call attention to the Wilson patent barrel truck manufactured by them. The truck is intended specially for moving barrels with heads in or out, and will carry any weight from a 700-pound barrel to a nail keg. The Morse Soap Company, Toronto, who have this truck in their factory, using it for moving liquids in unheaded barrels, testify that it effects great economy in saving both labor and material. These trucks are now fully on the market.

MR. H. F. COOMBS, St. John, N.B., has invented a life saving appliance for ships' boats, by which it is claimed such boats are made comparatively safe when afloat on stormy waters. The appliance consists of longitudinal strips of iron at the side to which persons in the water may cling, or by means of which they may climb up to the keel, or under favorable circumstances right a capsized boat. There are also air chambers at the bow and stern, and air and water-tight lockers under the thwarts, in which fresh water and provisions may be safely kept.

MR. J. W. CHISHOLM, of Liverpool, N.S., the inventor and patentee of the automatic car coupler to which we referred in a late issue, is now in Ottawa. His invention was examined at the Department of Railways and was highly commended. He received permission to proceed to the workshop of the I.C.R., at Moncton, and have castings made according to the model. Mr. Chisholm will superintend the casting, and little doubt is entertained but that the invention will be adopted on the Government railways.—*Liverpool, N.S., Times.*

THE Canadian Rubber Company, Montreal, are this year introducing a number of new features in connection with the boot and shoe department of their business. The directors have to some extent been reorganizing the establishment, with a view to devoting more attention than ever to fine grades of rubber footwear. Several new lines have been added to their already extensive list in ladies' and gents' overs and rubbers. In the new goods an effort is made to combine lightness of weight and beauty of finish, with durability and perfect fitting.

BARREL • TRUCK

FOR MOVING BARRELS WITH HEADS IN OR OUT.

WILL CARRY FROM 700 LB. BARRELS DOWN TO A NAIL KEG. (WILSON'S PATENT, 1887.)



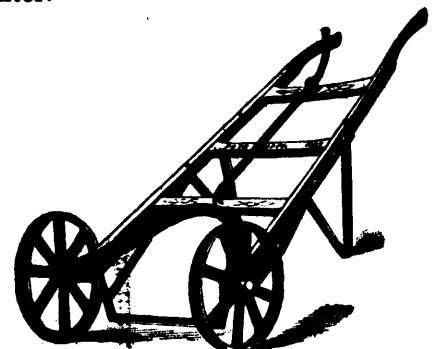
These Trucks are now ready for the market. Nothing to equal them for the purpose designed. Send order early.

Read the following Testimonial for the first Truck purchased from the Inventor.

Office of THE MORSE SOAP CO'Y.
JOHN TAYLOR & Co., Proprietors.
TORONTO, April 25th, 1887.

We have pleasure in saying, that the Barrel Truck we bought from George Wilson, for moving liquids unheaded is quite a success, and has already saved us much labor and material, on account of its convenience.

Respectfully,
[Signed], MORSE SOAP CO



Manufactured only by GURNEYS & WARE SCALE COMPANY, HAMILTON, ONT.

THE Standard Drain Pipe Company of St. John, Que., have received the contract for all the sewer pipes and invert blocks (clay blocks on which brick dams are built) required for the city of Montreal for the current year. The company has also just received another large order from the corporation of Parkdale, near Toronto. Recent certificates received from Mr. Fleming, engineer to the Sanitary Association of Montreal, and Mr. St. George, city surveyor of Montreal, clearly prove that the drain pipes made here are far superior to the Scotch pipes, which hitherto were supposed to be the best made in the world. This company are now working six kilns on full time.—*St. Johns, Que., News.*

THE Gale Manufacturing Company, Toronto, manufacturers of white underwear for ladies and children, shirts, collars, cuffs, etc., find their business increasing so rapidly that they will soon remove their works to much larger and more commodious quarters. This business was first established by the present manager, Mr. J. W. Gale, in 1863, when but from fifteen to twenty hands were employed. It has steadily increased until at this time some 250 employees are given constant work, and when the concern move into their new quarters, which will be soon, their working force will be increased to 350 or 400 hands. The new factory will be equipped with a full supply of all modern machinery and appliances known to the business.

ST. STEPHEN, N.B., is a lively manufacturing town. The evidence given there before the Labor Commission dealt with several important industries. Ganong's confectionery establishment employs 80 to 125 hands. It manufactured last year 1,125,000 pounds of confectionery, valued at \$225,000, of which \$65,000 was sold in the Upper Provinces. Vroom's furniture establishment employs sixteen hands, and Ganong's soap works the same number. De Wolfe's carriage shop employs eight men, and Broad's edge-tool factory twenty-five. The St. Croix cotton mill has 650 hands. The latter establishment pays \$19,000 a month in wages. Vroom's slipper making establishment gives employment to twenty hands.—*St. John, N. B., Sun.*

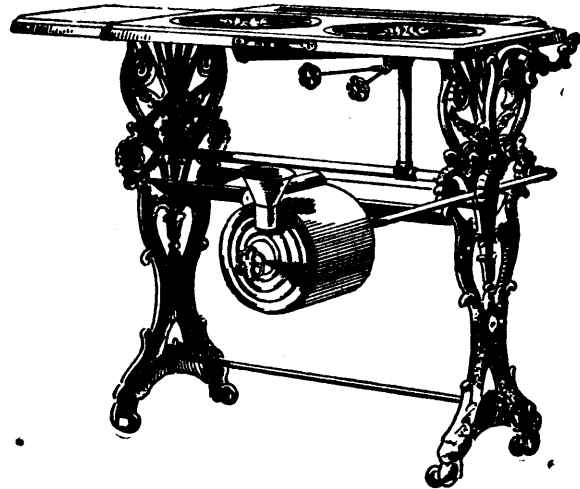
THE Canada Paper Company, Montreal and Toronto, paper makers and wholesale stationers, whose card appears in another page, call attention to some of the lines of goods handled by them. They are manufacturers of writing, book, envelope, news and colored papers, manilla and bag papers, and of special papers for hardware, hosiery, etc. They also manufacture glazed and fancy paper box papers, shipping tags and envelopes. A lengthy description of this company's new Springvale Mills, at Windsor Mills, Que., was published in this journal on March 2 last. The Springvale Mills, and the Windsor Mills, which are in close proximity thereto, and also owned by the Canada Paper Company, have a combined capacity to manufacture twenty-five tons of paper per day.

THE Sussex Woodworking Company, Sussex, N.B., manufacturers of bobbins, spools, etc., will at once begin the erection of an additional factory at Hardingville, near St. John, N.B., the rapid expansion of their business rendering this step necessary. The new building will be 70x35 feet, and power will be obtained from a sixteen foot head of water at the place through a forty inch and a twenty-three inch turbines. In one department of the factory will be made bobbins for cloth, cotton, cordage and flax mills, stock for brush factories, liquid measures, druggists' boxes and handles for mechanical and agricultural implements, and in the other department broom handles, pickets, etc. A dryhouse 50x23 feet will also be built. It is expected that the new works will be ready for operation in September. About \$11,000 will be invested in this particular business.

THE Polson Iron Works Company, Toronto, successfully launched the new screw steamer, *City of Chatham*, from their works on May 21st. This beautiful vessel is built to ply on the route between Chatham, Ont., and Detroit, Mich. Her extreme length is 125 feet; length on the water line, 115 feet; breadth of beam, 28 feet; depth of hold, 9 feet 3 inches; draught of water 7 feet; registered tonnage, 250; gross tonnage, 430; passengers allowed, 800. The engines are constructed according to the latest improved compound model. The high pressure cylinder is 19 inches in diameter, and the low pressure cylinder 31 inches, 24 inches stroke. The boiler is of A1 Scotch steel, 11 feet 6 inches longitudinally, and 6 feet diametrically, having two of Fox's return corrugated flues. The screw has a pitch of 6 feet 9 inches with driving shaft 7 inches in diameter. The mean pressure will be about 130 pounds, and it is expected that the vessel will have a speed of 17 knots an hour. She is fitted up throughout in elegant style, and reflects great credit upon the builders. This is the twentieth vessel built in the yards of this concern.

MONARCH VAPOR

STOVES



(ALL SIZES.)

The manufacturers feel safe in saying that no means of summer cooking ever introduced has gained such a marvellous hold on the public favor. Though only a few years since first introduced, to-day they are felt to be a part of the family economy. So widespread has become the demand for these Stoves that it is claimed that over

ONE HUNDRED THOUSAND

Were sold in the United States during the past year.

They are especially servicable for summer use, doing the entire work of any ordinary cook stove, and with an absence of heat so desirable in hot weather.

These Stoves are very simple in operation and no more dangerous than an ordinary Lamp.

EVERY STOVE WARRANTED.

MADE BY

McCLARY MANF'G. CO'Y

London, Toronto, Montreal & Winnipeg.

THE Ever Ready Dress Stay Company, Windsor, Ont., as previously mentioned in these pages, have erected new and more commodious premises in which to carry on their rapidly growing business. This dress stay is a thin steel band enclosed in rubber and satine or satin, and is absolutely perspiration proof, and while bending to any angle without any liability to break, retain its rigidity, hence garments in which they are used preserve their perfect shape until they are entirely worn out. They cannot slip down or out, cannot fray or curl up at the edges, and are so light that it takes half-a-dozen to weigh an ounce.

MESSRS. DOBSON & BRODIE, Montreal, have sent us a circular in which is illustrated the "Perfection" smoke consumer and fuel economizer, manufactured by them. Longitudinal, front and cross-section views are shown, with appropriate lettering, drawing attention to the different parts and features, a table of reference fully explaining the same, the illustration being of an improved flanged-seam double flued high pressure steam boiler. Of course all steam users are interested in the matter of smoke consumption and the economizing of fuel; and Messrs. Dobson & Brodie will take pleasure in giving exact and valuable information on the subject.

THE Kingston & Pembroke Mining Company, of Kingston, Ont., employ about 150 hands in their Colabogie, Wilbur and Glendower mines in that vicinity. Prospectors are operating on thousands of acres belonging to the company, and locating new beds. A diamond drill is at work in the Robertsville mines and a sixteen-foot vein has been struck. It is 400 feet below the surface. The prospectors are now endeavouring to locate the length of the vein in order to ascertain whether it would be profitable to develop. Several American firms have asked to be supplied with the ore, and one of them, Carnegie Bros., of Pittsburgh, have asked for 500 tons per day.

THE Canadian Lumber Cutting Machine Company, who have recently erected works at Belleville, Ont., made a trial of their machines a few days ago with very satisfactory results. The process, which is a new one and of which the company have the patent in Canada, consists of the cutting of material for veneering, cheese boxes, etc., by a huge knife which weighs two tons, driven by a suitable steam engine. The process is very rapid and effective, the veneers being cut more smoothly, it is claimed, than by a planer. It is also very economical, there being no waste. It is probable

that a large factory for cutting veneers will be started in connection with these works

THE Methodist Publishing Company, Toronto, have commenced work on their newly acquired property in this city, and before cold weather comes again they will have one of the most complete publishing establishments in Canada. They recently purchased the old church building and land on Richmond street, which extends through to Temperance street, for which they paid \$30,000. The whole premises are to be remodeled. A fine building on the Richmond street front will contain the sales department, offices, etc., while the old church fronting on Temperance street, will be altered for printing, binding and other purposes. The improvements will cost about \$70,000.

MR. GEORGE GOODSON, late of Brantford, Ont., the inventor of the electric type-setting machine, is rapidly becoming famous. The New York *Graphic* contains a portrait of Mr. Goodson and a representation of his machine, and a description of it, and says that it is possible for an expert operator to set at least 12,000 ems per hour with the machine, but the average speed would probably be 5,000 ems on an all day run, or about five times the speed of an ordinary compositor. The *Graphic* thus sums up the advantages of the invention: 1st. The cost of composition will be reduced at least three-fourths; 2nd. No more wear and tear of type, no new dress required, and yet there is always a new dress; 3rd. A reduction of no inconsiderable amount in space now occupied by composition room; 4th. Saving of capital now locked up in the body type.

A REPRESENTATIVE of this paper recently visited the thriving village of Clinton, Ont., and although aware of Doherty's organ factory being located there, the writer was much astonished to find the establishment of such size and extent. This business was started in a small way only twelve years ago, but has now grown to such proportions that apart from the excellent home demand, large numbers of instruments are exported to England, Ireland, Scotland and the continent of Europe, and their total foreign trade has doubled within the past year. The most recent triumph achieved by this firm has been the capture of the gold medal awarded by the Society of Literature and Art of London, England, on April 10th of the present year; and as the judges who made the award were all skilled musicians of high repute, Messrs. Doherty & Co. may well be proud of their report.

CANADA PAPER CO'Y

(LIMITED),

PAPER MAKERS

AND

WHOLESALE STATIONERS,

MONTREAL and TORONTO.

MANUFACTURERS OF

WRITING, BOOK, ENVELOPE, NEWS AND COLORED PAPERS.

Manilla and Bag Papers. Special Papers for Hardware, Hosiery, Starch and Sugar made to order. Also manufacturing Glazed and Fancy Paper Box Papers, Shipping Tags and Envelopes.

PULLEY COVERING PAPER IN STOCK.

WINDSOR & SPRINGVALE MILLS. CAPACITY, 25 TONS PER DAY.

ONE of the members of the wide awake firm of Messrs. A. & R. Loggie was in Baltimore in 1886, and, seeing "ocean trout" on some cans in a grocery store, bought one of them and opened it. He found that it was filled with herring, and made a note of it. Last year he put up a few cases at Escuminac and sent them abroad. They sold so well that the firm has gone largely into the business this spring, employing their entire lobster canning force, now when there are no lobsters to can, in this industry. The herring stay in-shore for a few days only, and they are taken wholesale in a temporary pound made with set nets, in which they are kept till wanted. The factory girls clean, gut, and scale the herrings, and pack them, slightly flavoured with salt. It requires about two herring to a can. This herring canning business will probably become one of the great fishing industries of the North shore.—*Chatham, N.B., World.*

THE Detroit Stove Works, Detroit, Mich., have sent us their 1888 catalogue of Crown Jewel vapor stoves manufactured by them. It contains illustrations and descriptions of every size and style of the article, from the little one burner short-legged arrangement that may be placed on the kitchen table for use, and which is so convenient for light housekeeping, where but one or two persons require the use of it, or for picnics, fishing parties, campers, etc., to the heavier and more pretentious stoves and ranges, with four to six cook holes, bake oven, etc., with capacity to cook for large families. The manufacturers of these stoves belong to the Association of Licenses of the Consolidated Vapor Stove Company, who own some thirty patents under which the goods are made. These patents cover about every invention of value necessary in the construction of these stoves, and by the use of which the article has been brought to its present high state of perfection. The manufacturers will take pleasure in sending descriptive circulars on request.

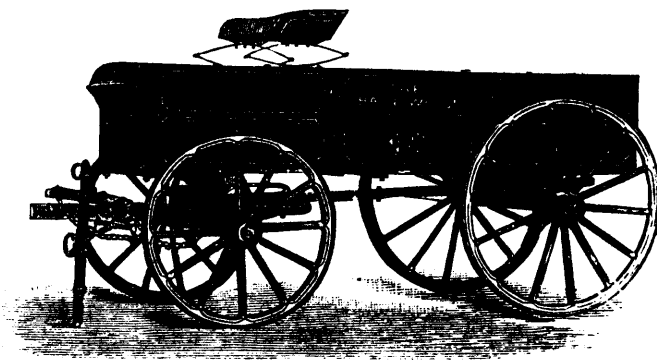
MR. WM. H. FROST, proprietor of the Smith's Falls Malleable Iron Works, has sent us two illustrated catalogues recently issued by him. In the one having reference to malleable iron, plow and stove castings, attention is called to the large and important additions made to the list of this line of goods, a large and complete stock of which is always carried. Among the articles illustrated and described are coultter sockets, claw hammer and wrench, gang plow wrench, harrow clips, hose keys, lathe dogs, lawn mower wrench, loom swells, melting ladles, measure and other handles, pail ears, plow clevises, jaws, rings and wrenches, sewing machine

wrenches, stove catches, lifters, pokers, shakers and turnkeys, twist links, etc. The other catalogue calls attention to the important additions made in the carriage and other hardware list, and refers to axle yokes, loops and couplings, back stays, bolster plates, breeching hooks, buggy wrenches, carriage steps, centre irons, check and footman loops, corner irons, felloe plates, fifth wheels, harrow clips, hay and other fork ferrules, holdbacks, loophead nuts, rowlocks and sockets, seat fasteners, side bar castings, sleigh trimmings and fastenings, shaft irons, thumb nuts and bolts, whiffletree trimmings, whip sockets, etc. These catalogues are gotten up in very fine style, the illustrations are clear and distinct, and the presswork, printing and paper first-class in every respect.

MR. F. STETSON, St. John, N. B., manufacturer of lime, is placing an improvement in his kilns at Indiantown by which mill waste and sawdust will be used for fuel instead of cordwood as heretofore. Regarding the quality of New Brunswick lime as compared with lime made at Rockland and other places in the State of Maine, a short time ago Mr. Stetson procured from a Boston dealer specimens of what are known as the best, medium and poorest qualities of Rockland and Rockport lime. These specimens were put to a chemical and a practical test in conjunction with six samples of the New Brunswick lime, and it was ascertained that the native article was much superior to that from the quarries of Rockland and Rockport. In the practical test it was found that the New Brunswick lime was from 25 to 50 per cent. stronger than the American article, that is, the New Brunswick lime in mixing for mortar would absorb much more sand than the other. In the chemical test, the lime from the Stetson kiln, at Indiantown, proved 96½ per cent. pure. Two of the American specimens stood this test very well, but on the whole the home article made a better average than did its competitors. It is much easier and cheaper to manufacture lime in New Brunswick than at Rockland, as in St. John the stone is all found above the surface, and in no case is it necessary to haul it any great distance to the kilns. In fact almost the only cost is the labor of making barrels, cutting wood, etc. In Rockland the stone is all got by mining, which makes the cost of production much more expensive, as it is necessary to run pumping machines and other appliances of an expensive nature. In Rockland it is also necessary to carry the stone by teams distances varying from two to three miles which adds materially to the cost.

Bain Wagon Co.

— MANUFACTURERS OF —



LIGHT RUNNING

FARM, SPRING AND FREIGHT WAGONS

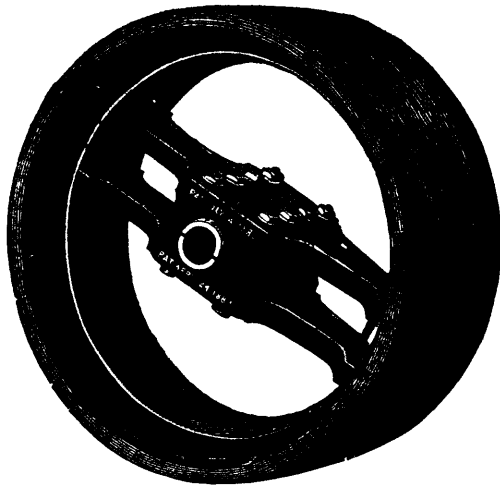
Also Heavy Sleighs and Steel Skein Log Trucks.

SEND FOR PRICES TO

BAIN WAGON CO.

Woodstock, Ont.

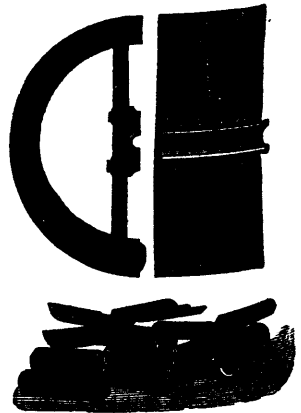
Dodge Patent Wood Separable or Split Pulleys.



Best Belt Surface, Lightest, Strongest, Best Balanced and Most Convenient Pulley in the World.

With our Patent Bushing System

Every pulley will fit 22 different sizes of shafting, and guaranteed to give from 30 to 60 per cent. more power from same belt and like tension than any iron or steel pulley. Every pulley a split pulley, 70 per cent. lighter than cast iron, and 50 per cent. lighter than wrought iron or steel. Strong enough for any power required. Made in any size from nine inches to sixteen feet diameter.



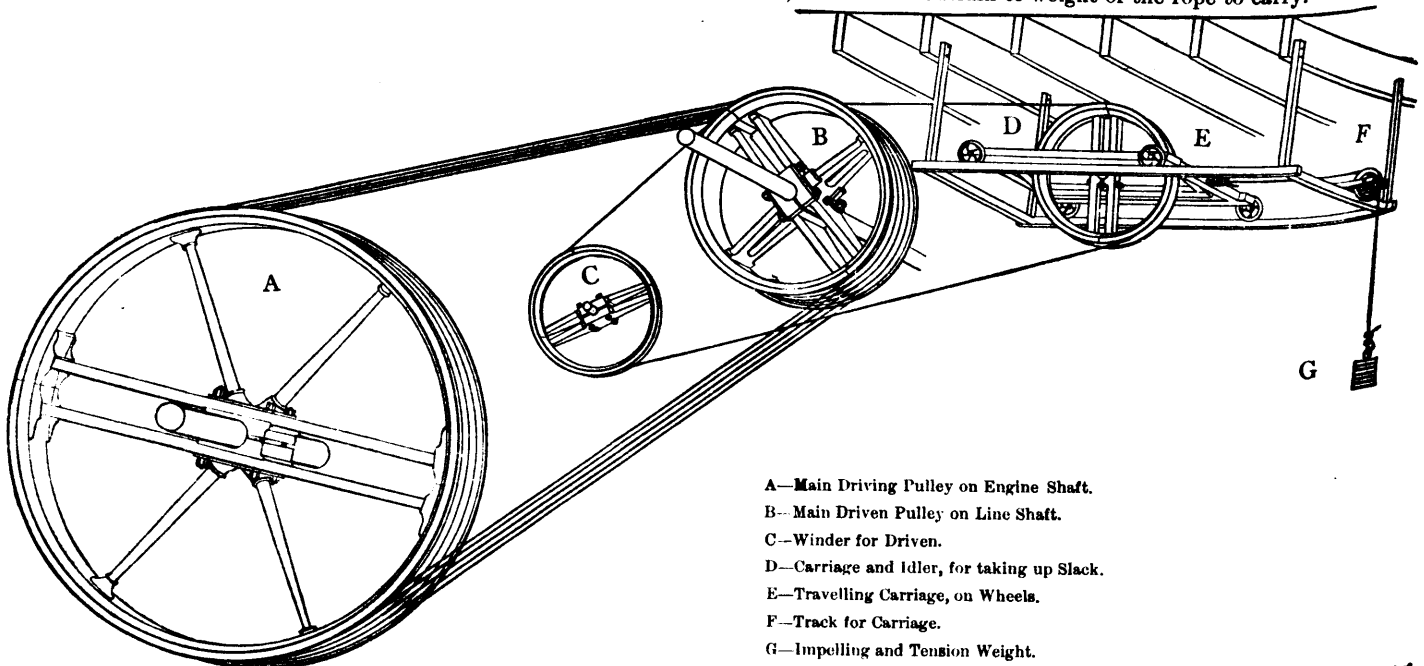
THE TRANSMISSION OF POWER BY ROPES AND THE DODGE PATENT WOOD PULLEYS.

The great advantage of Wood over Iron as a material for belt pulleys (or drums) to transmit power economically, has induced the DODGE WOOD SPLIT PULLEY CO., of Toronto, to introduce grooved hardwood pulleys for the special purpose of transmitting power by ropes (manilla tallow laid), and in this connection Mr. Dodge has taken out Canadian Letters Patent for a system of applying the ropes, adjusting the pulleys, and taking up slack, that is giving the most unqualified satisfaction.

This system of transmitting power by ropes is cheaper and superior belts in many cases, such as where the driven shaft is at right angles with the driver, also where the drive is perpendicular, particularly when it is quarter twist and perpendicular; also where the driver and driven are

close together; also for long drives, such as across a street, or a stream, etc. For transmitting power from an engine to the line shaft this system is unequalled; steady all the time, not like a heavy belt, which is always more or less flapping, jerking and stretching, then slipping and losing power. It is safe to say that an engine hitched up by the Dodge Rope System will do 25 per cent. more work on the same consumption of fuel than the same engine would do with a belt. We have put up a number of the Dodge Patent Rope transmissions during the past year, all of which are in most successful and satisfactory operation, as certified by the testimonials published in our catalogue of well-known manufacturers who have them in use.

WITH OUR SYSTEM OF MANILLA ROPE TRANSMISSION is overcome the objection to Wire Rope (because of crystallizing) and gearing, (because of loss of friction) and shafting (because of the liability to get out of alignment, hence loss of power by friction), and a separate engine plant (because of its great expense); on the contrary, with the Manilla Rope System, under the Dodge patents, the power is transmitted with the same efficiency as though the shafts were close together, there being no loss of power by excessive tension, or bad alignment, but simply the friction of the journals to overcome at the carriers, which have a strain of weight of the rope to carry.



A—Main Driving Pulley on Engine Shaft.
 B—Main Driven Pulley on Line Shaft.
 C—Winder for Driven.
 D—Carriage and Idler, for taking up Slack.
 E—Travelling Carriage, on Wheels.
 F—Track for Carriage.
 G—Impelling and Tension Weight.

The illustration, as shown above, is one of peculiar construction, and represents an engine transmitting its power to the line shafting by the Dodge Patent System of manilla ropes and grooved hardwood pulleys. Transmissions similar to the above are now in use at the works of the following well-known manufacturers in Toronto:—

A. R. Clark & Co., Leather and Glove Manufacturers, 50 H.P.; T. Tushingham & Son, Builders, 35 H.P.; J. R. Black, Carriage Works, 50 H.P.; Barber & Ellis Co., Stationers, 8 drives, 87 H.P.; Jas. Lochrie, Rope Manufacturer, 60 H.P.; J. P. Wagner & Co., Show Case and Keyboard Manufacturers, 50 H.P.; J. Taylor, Morse Soap Works, 60 H.P.; Joseph Simpson, Knitting Mills, 80 H.P.; and numerous others whose testimonials can be seen in our catalogue. Parties who are in want of anything in this line, or who are interested in the efficient and economical transmission of power, are cordially invited to call at our works and see the ropes and wood pulleys in operation, as we are driving our whole factory by this system. Send for Price List, Catalogue and Cypher Code, for ordering by telegraph, to

THE DODGE WOOD SPLIT PULLEY CO., 89 ADELAIDE ST. W., TORONTO.

Every Instrument
Warranted.

“ BELL ”

ESTABLISHED
25 Years.

UPRIGHT PIANOS CABINET ORGANS

We have just commenced the manufacture of Pianos—which contain all the best known practical improvements. In quality, the best that can be produced with first-class material and skilled labor.

Have a universal reputation as being strictly first-class, and are recommended by Highest Musical Authorities. In tone, design and workmanship unsurpassed.

SEND FOR CATALOGUE TO

W. BELL & CO. HEAD OFFICE AND FACTORIES, GUELPH, CANADA.

Branch Warerooms at Toronto, Hamilton, St. Thomas, Winnipeg, London, Eng. and Sydney, N.S.W.

Maw & McFarlane
DUNDAS, ONT.

IRON FOUNDERS, ENGINEERS AND MACHINISTS,

MANUFACTURERS OF

Drop Hammers,

LIFTERS, DIE SINKERS AND PRESSES.

CORRESPONDENCE SOLICITED.

TERRA COTTA FIREPROOFING

FOR USE IN NEW AND OLD BUILDINGS.

The best thing made. Endorsed by leading Architect Absolutely Fireproof, and “brimfull” of other good qualities. Address,

THE RATHBUN COMPANY,
DESERONTO, ONT.

WHAT OUR CUSTOMERS THINK OF THE **BEAUDRY UPRIGHT CUSHIONED POWER HAMMER.**

Office of FROTHINGHAM & WORKMAN, Iron Merchants,

MONTREAL, February 3rd, 1888.

MESSRS. MILLER BROS. & MITCHELL.

GENTLEMEN,—Your enquiry of the 30th ult. as to my opinion of the BEAUDRY UPRIGHT POWER HAMMER, 125 lbs. Head, purchased from you about a year ago, to hand. Would say, it has given perfect satisfaction, and during my experience I have seen nothing to equal it for our work.

Yours truly,

JOSEPH DUNN,

Manager St. Paul Shovel Works.

Can be seen at Permanent Exhibition of Manufactures in Toronto.

MILLER BROS. & MITCHELL, Sole Makers for Canada, MONTREAL

TO USERS OF LEATHER BELTING

SOME PERTINENT SUGGESTIONS.

FIRST { We tan our own Leather especially for Belting.
 { We have increased our trade threefold during the last few years.
 { We sell our Belting according to a list that is 25% to 30% lower than the American list, which some sell by in Canada.

BUT { We have heard some consumers who are N.P. manufacturers say that they cannot get good Belting made in Canada.

NOW { **WE HAVE CUSTOMERS** { To whom we have sold 3,000 to 40,000 Dollars worth of Belting.
 { **AMONG THE** { One firm alone buying from us last year to the amount of \$10,000 for their Mill.
 { **BEST MILLS IN CANADA.**

CAN YOU { **HARMONIZE THESE FACTS WITH** { 1st. That our PRICES are RIGHT?
 { **ANY OTHER THEORY THAN** { 2nd. That our LEATHER is GOOD?
 { 3rd. That our BELTS are WELL MADE?

IF NOT { Send us a Sample Order and see if we cannot please you.

ROBIN & SADLER,
MANUFACTURERS,

129 Bay St., TORONTO.

Notre Dame St., MONTREAL.

C. C. CLEVELAND

J. L. GOODHUE & CO.

G. F. CLEVELAND.

MANUFACTURERS OF

LEATHER BELTING

Canadian Leather,
Canadian Made,
Canadian Price List.

Thoroughly Stretched,
Carefully Made,
Runs Straight.

— AND —

LACE LEATHER,
DANVILLE, - QUE.

OUR BELTING IS MADE FROM

CANADIAN TANNED LEATHER

Tanned in the most careful manner expressly for Belting in our own Tannery. We warrant it equal to any imported, either American or English, or any made from imported American or English Oak Leather. All widths, single or double, for any duty Saw Mills, Cotton Mills, Woollen Mills, Electric Light, etc., etc.

Canadian Manufacturers should use Canadian Belting.

Specimens of these goods are to be seen at the Permanent Exhibition of Manufactures, 63 to 69 Front Street West, Toronto.

By Royal



Letters Patent

THE PERFECTION
SMOKE CONSUMER
 - AND -
FUEL ECONOMIZER

FOR ALL HORIZONTAL BOILERS.

AT PRESENT BEING APPLIED TO FLUED BOILERS.

PRICE IN MONTREAL, \$100 PER FURNACE.

AT MONTREAL WATER WORKS ; C. P. R., SHOPS ; AND
 CANADIAN RUBBER WORKS.

BOILERS SET AND TRAVELS CONVERTED TO NEW SYSTEM.
 CORRESPONDENCE INVITED.

DOBSON & BRODIE,

169 St. James St., Montreal.

CANTLIE, EWAN & CO.

Genera Merchants and Manufacturers' Agents.

BLEACHED SHIRTINGS,
 GREY SHEETINGS, TICKINGS,
 WHITE, GREY AND COLORED BLANKETS,
 FINE AND MEDIUM TWEEDS, KNITTED GOODS,
 PLAIN AND FANCY FLANNEL,
 LOW TWEEDS, ETOFFES, ETC.

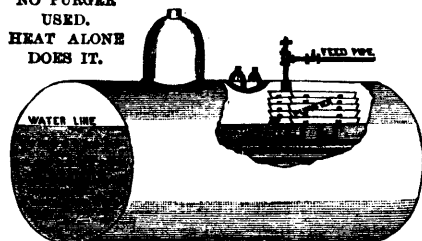
Wholesale Trade Only Supplied.

15 VICTORIA SQUARE,
 MONTREAL.

20 WELLINGTON ST. E.
 TORONTO.

PATENT BOILER WATER PURIFIER.

NO PURGER
 USED.
 HEAT ALONE
 DOES IT.



SHOWING POSITION OF PURIFIER IN BOILER.

THIS PURIFIER ENTIRELY PREVENTS THE FORMATION OF SCALE UPON SHELL AND FLUES OF ANY BOILER IN WHICH IT IS USED. ALL IMPURITIES ARE EXTRACTED FROM THE WATER BEFORE IT REACHES THE WATER LINE, AND ARE DEPOSITED IN THE PANS OF THE PURIFIER.

THESE PANS CAN BE REMOVED, CLEANED AND REPLACED WITH VERY LITTLE TROUBLE, AND IN A VERY SHORT TIME, WITHOUT EMPTYING THE BOILER OF HOT WATER, WHICH MEANS A SAVING OF TIME, LABOR AND FUEL.

FOR PARTICULARS AND PRICES ADDRESS

J. W. HERMAN, 214 1/2 King St. West, Toronto, Ont.

Canadian Rubber Co.

Cor. Front & Yonge Sts., Toronto.

MANUFACTURERS OF

RUBBER SHOES & FELT BOOTS,
 Patent Pressed Double Strip Rubber Belting,

RUBBER
 ENGINE,
 HYDRANT,
 SUCTION,
 STEAM,
 BREWERS'
 and FIRE
HOSE.
 HORSE
 CLOTHING
 STEAM
 PACKING.



RUBBER
 VALVES.
 CAR
 SPRINGS.
 WRINGER
 ROLLS.
 CARRIAGE
 CLOTHS
 BLANKETS.
 STOPPLES,
 etc., etc.

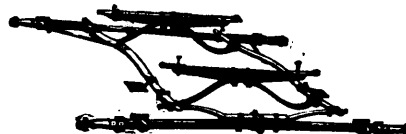
Mould Goods of Every Description.

LADIES' & GENTLEMEN'S TWEED and GOSSAMER CLOTHING

OUR RUBBER GARDEN HOSE IS THE
 BEST IN THE MARKET.

J. H. WALKER, - Manager.

Armstrong's Improved Defiance Gear.



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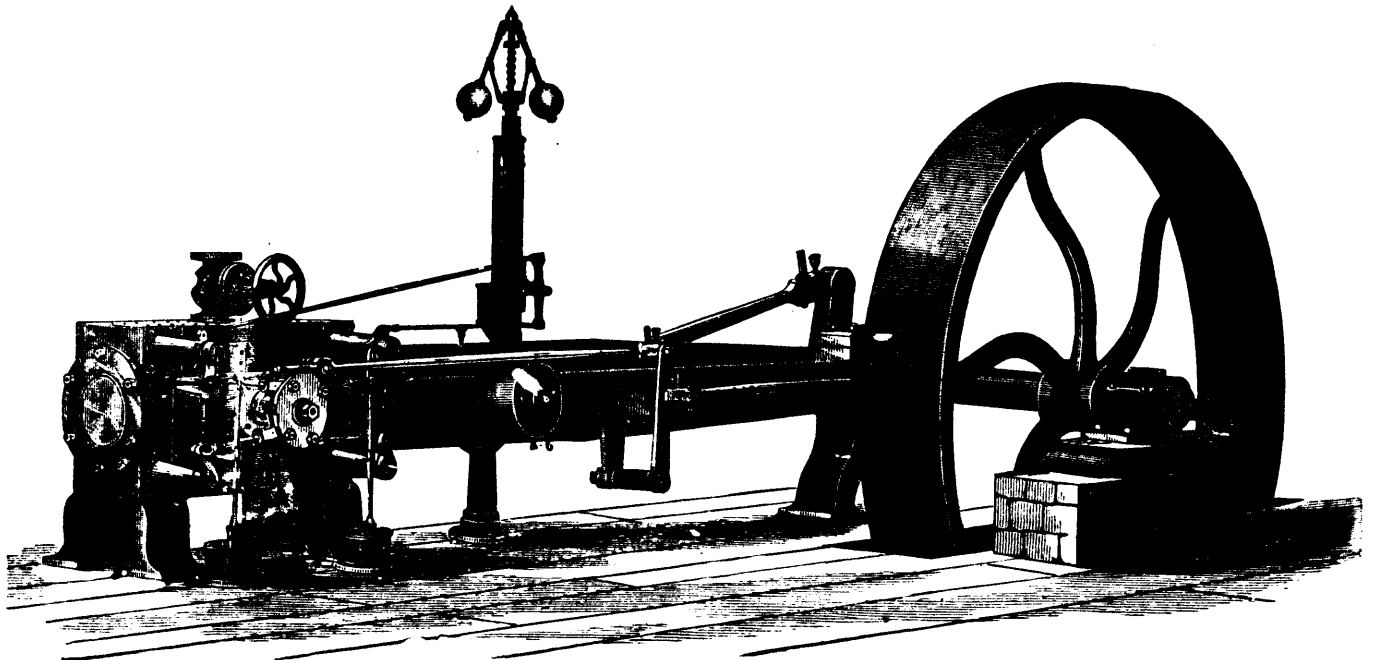
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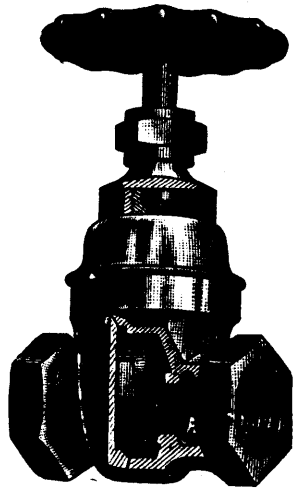
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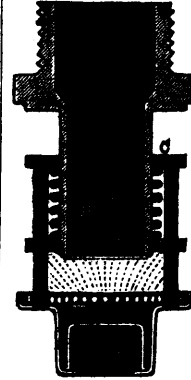
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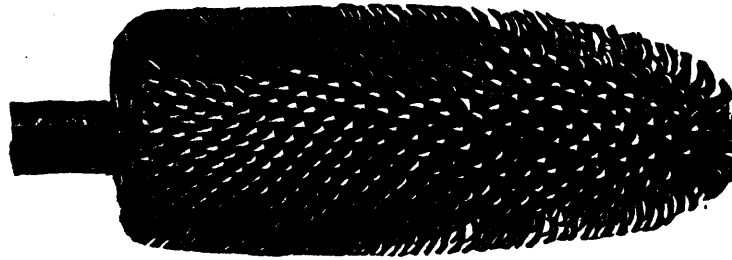
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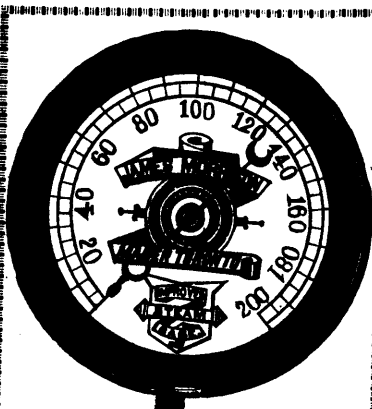
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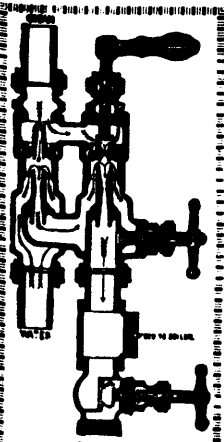


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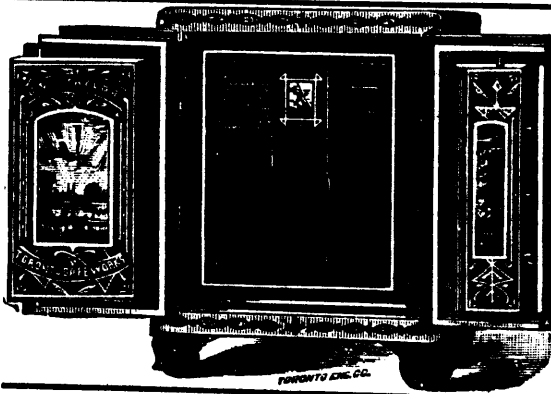
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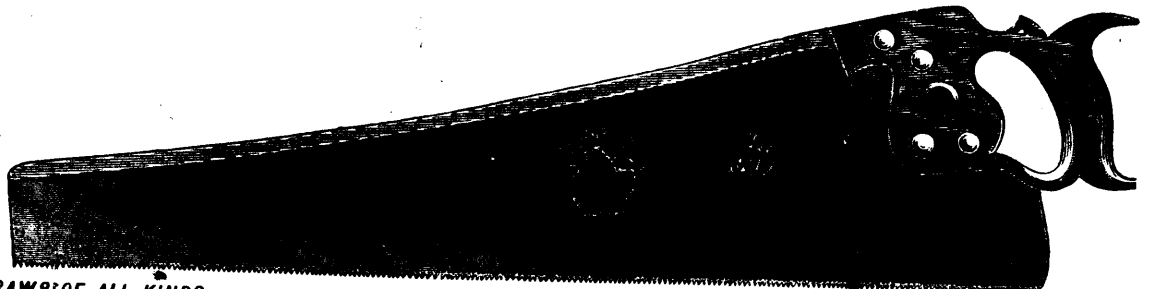
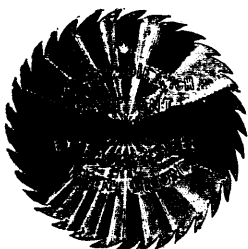
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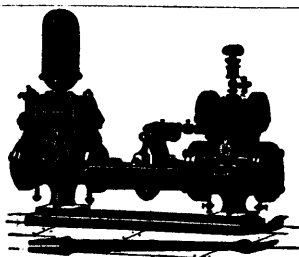
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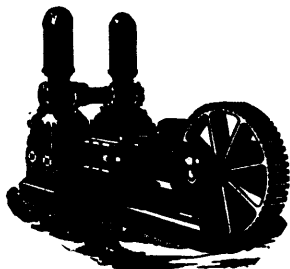
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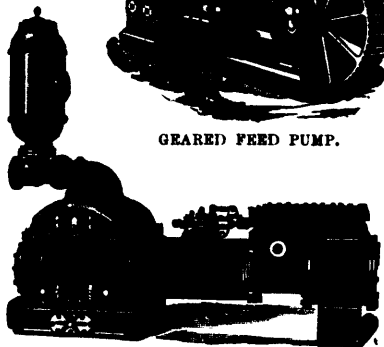
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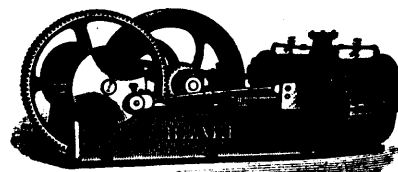


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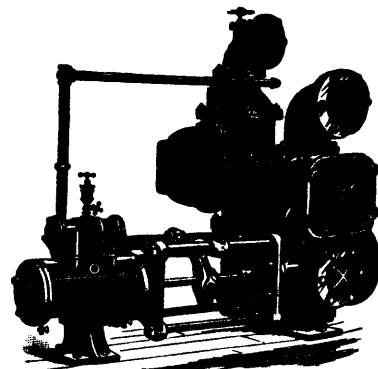
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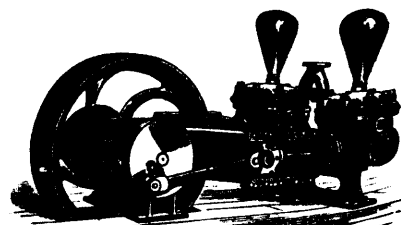
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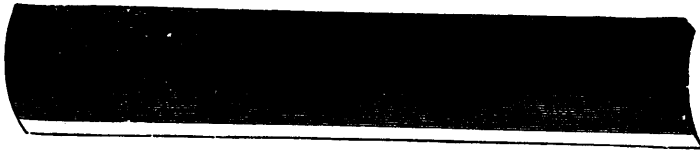
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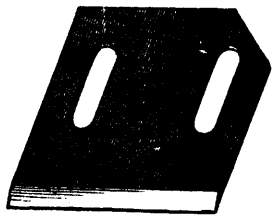
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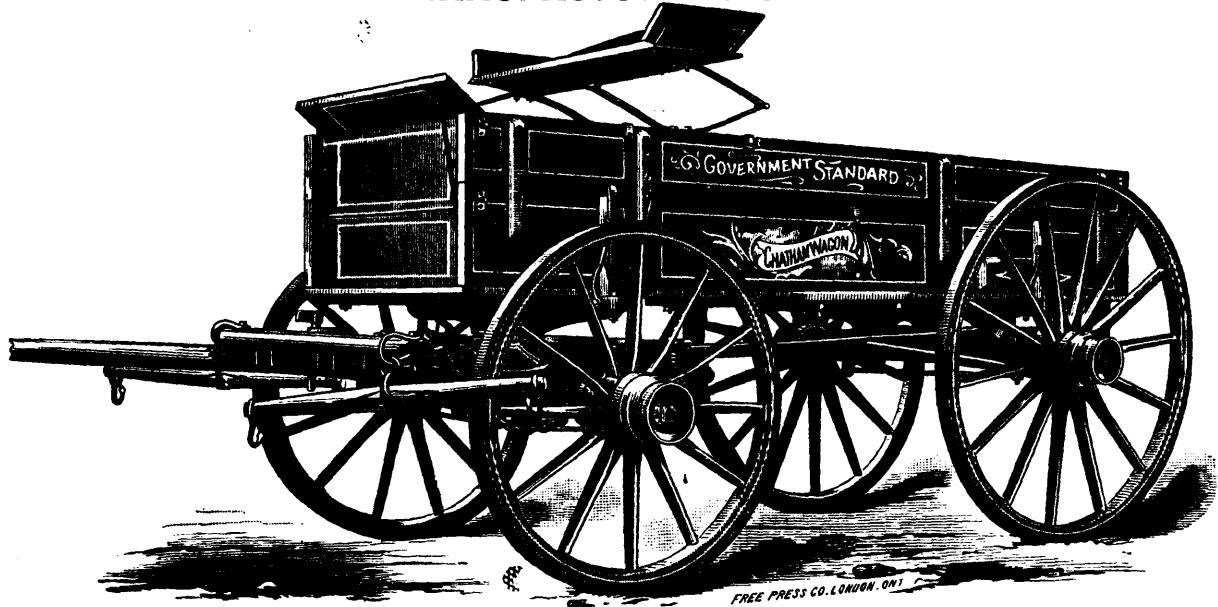
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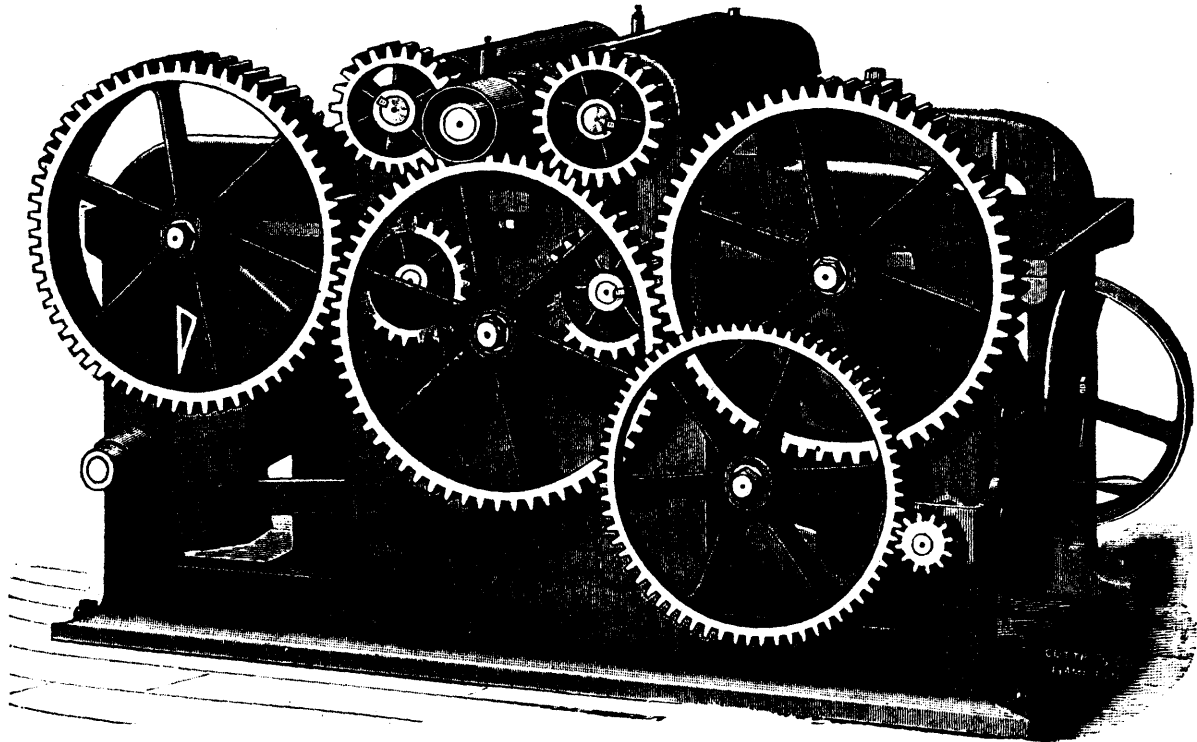
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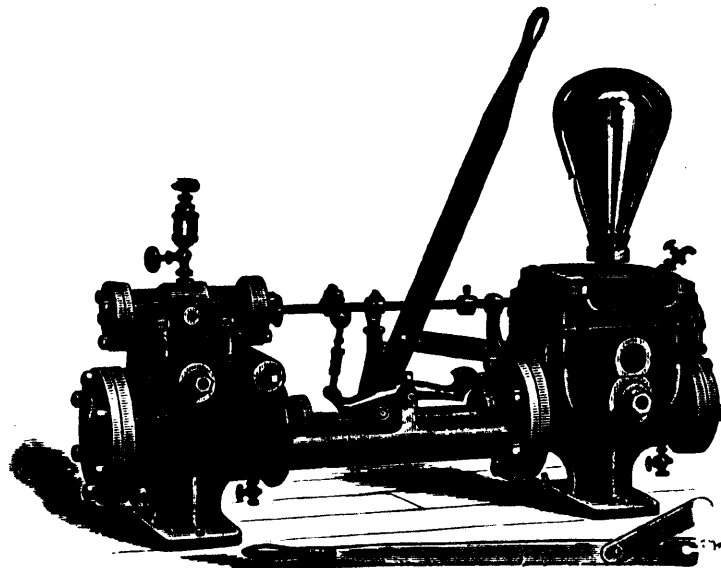
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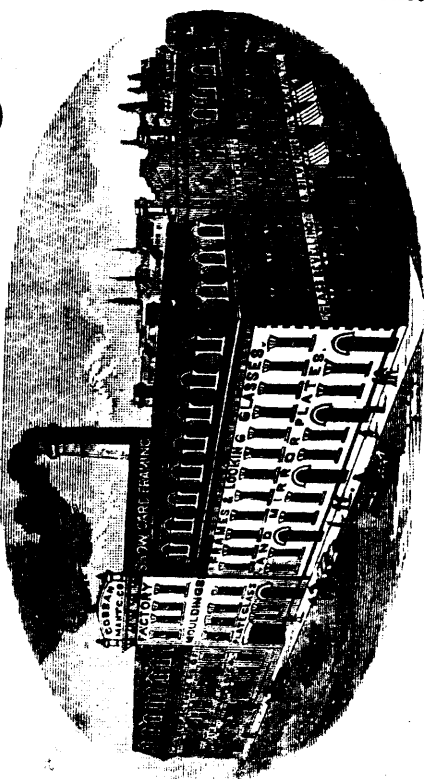
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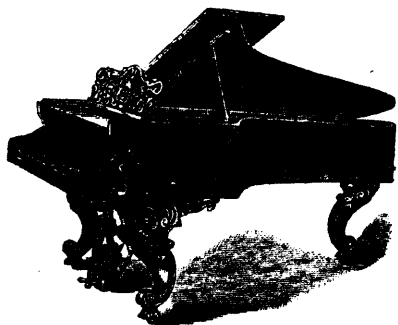
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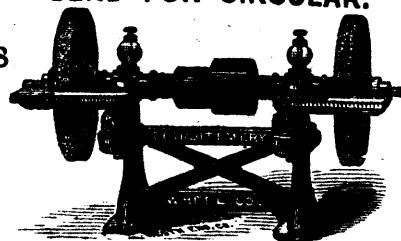
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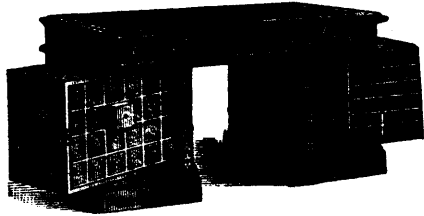
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