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THE CANADIAN MANUFACTURER

AND INDUSTRIAL WORLD.

DEVOTED TO *
 → THE MANUFACTURING & MINING INDUSTRIES,
 OF THE *
 → DOMINION.

Vol. 13.

TORONTO, JULY 15, 1887.

No. 2.

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VOL. XIII.

TORONTO, ONT., JULY 15, 1887.

No. 2.

SIMILAR CAUSES SHOULD PRODUCE SIMILAR EFFECTS.

PREVIOUS to the war of the Rebellion in the United States, which broke out in 1861, there never had been a distinctively protective tariff in force in that country. Manufacturing industries in the Northern and New England States were not at all flourishing, and goods of British manufacture were generally considered superior to those of American make. The Western States were producers of grain, breadstuffs and food products, and the Southern States were devoted to the cultivation of cotton. When the war began the South was entirely barren of arsenals, workshops and foundries capable of turning out weapons of warfare, and there were but few factories in which textile fabrics could be produced. The South had always been under the domination of free traders, and when it was suggested that the country was but poorly prepared to go to war, not having within itself the facilities for producing the staple necessities of life, and for carrying on a war, the reply was that all such things could be obtained abroad. It is true that large quantities of supplies were run through the blockade, but blockade running was a precarious and uncertain business, and the collapse of the Confederacy was due largely to the fact that the importance of manufacturing industries had previously been systematically ignored, and that under the pressure of events the country was unable to sustain itself.

After the war the South resumed the cultivation of cotton, but it never prospered nor was happy until it diversified its industrial pursuits, and entered upon a new career as a manufacturing section. This it did in 1880, and from that time on its progress has been most marked and remarkable. The South abounds in natural products—there are thousands of square miles of as yet untouched and virgin forests, and its deposits of iron ore, coal and other valuable minerals are practically inexhaustible.

At the close of the war of the rebellion the government of the United States, then in the hands of the Republican party, found itself confronted with a national debt of some three thousand millions of dollars, the payment of which, and how to recuperate the country from the effects of the war were the great problems. In 1865 Congress adopted what is known as the Morrill tariff—a measure intended to bring large sums of money into the treasury, and to establish new manufacturing industries. It was successful in this, for to-day we see that the question there is—not how to raise more money, but how to diminish the receipts. We also observe that in all material and essential things the United States is not dependent in any respect on any other nation for manufactures, for by and

through its protective policy there has grown up industrial establishments that fully supply all its essential requirements. Under this impetus the Western States went largely into manufacturing, and to day Ohio, Indiana, Illinois and Michigan are as distinctively manufacturing States as are Massachusetts, Rhode Island, Connecticut, or New York.

As we have stated, the desire for the establishment of manufacturing industries did not find full development in the South until 1880, but at that time the vain repining over the results of the war gave place to nobler sentiments, and a determination to enter upon a career that would place that section fully abreast with other portions of the country that were greatly in advance. Agriculture was not abandoned, but diversified. The cultivation of cotton did not cease, but farmers found it desirable and profitable to grow other things also, and now thousands of them are thriving and prosperous, finding ready sale for their garden and other produce. The value of crops produced in the South in 1886 was \$133,000,000 greater than in 1880, fruit and garden crops alone having increased \$13,000,000.

The renaissance as affecting the lumber, coal, iron ore and similar interests did not take the direction of marketing those articles in their crude condition, but of expending upon them the labor of skilled workmen and artisans, and the conversion of them into the thousand forms demanded by trade and commerce. And in this direction the development has been remarkable. Maj Burke, editor of the *New Orleans Times-Democrat*, and late manager of the exposition in that city, in a recent address stated that while in 1880 the manufactured products of the State of Georgia were valued at \$36,440,948, those produced during 1886 were worth \$67,898,000, an increase of \$31,457,052. In the same time Kentucky's manufactured products had increased \$30,961,623. Alabama's \$26,289,496. Tennessee's, \$28,486,000; Virginia's, \$24,988,000, and other States in lesser amounts. The total manufactured product of the Southern States in 1880 was \$315,925,794, and in 1886, \$529,835,000 an increase of \$213,910,206. The number of factories in the South increased during these seven years from 31,563 to 54,176. The capital stock has increased from \$179,366,000 to \$371,825,000 more than doubling—and the number of hands employed from 215,245 to 387,570.

These are remarkable facts, for while they show a wonderful increase in manufacturing industries, they also show that agricultural industries are in a flourishing and growing condition.

Until the inauguration of the present National Policy in Canada the conditions prevailing here were very similar to those in the Southern States previous to the rebellion and up

to 1880. It is true that the South had tariff protection ever since the war and up to 1880, but the old free trade sentiment and old Bourbon spirit was so largely in the ascendant there that advantage was not taken of that protection until the time mentioned, while in Canada from the inception of the National Policy manufactures began springing into existence, until at this time we are largely and well prepared to manufacture at home a very large proportion of all the requirements of the country, and fast getting into position to produce quite as great a variety of goods, and of equal merit, as is being done by American manufacturers in their country. As soon as Southern farmers discovered that a large and growing demand for a large variety of farm products had sprung up in their local markets, the consumers being the employes and others engaged in or interested in the new manufacturing enterprises, they diversified their crops, and although the production of cotton there is as large now as ever before, but on which the cotton planters can realize their money but once a year, the diversified products of the farm bring ready and remunerative prices every day in the year when the farmer sees fit to market them.

And it is in this manner that the Southern farmer profits largely by the contiguity of factories and workshops throughout his country, and it is and will be through the demand for similar products for home consumption, arising through the large numbers of consuming operatives and employes of Canadian manufacturing industries, that Canadian farmers derive and will continue to derive similar benefits.

THE FARMERS' INSTITUTE MEETINGS.

JUDGING from appearances the inference is plain that an organized scheme is being made to stifle free discussion at the so called farmers meetings engineered by the Central Farmer's Institute. In the first place the meetings have certainly not been representative, and the attendance at each has comprised but a microscopical percentage of the resident farmers in the counties in which such meetings have been held. This may be accounted for by the supposition that the large majority of the farmers are loyal to Canada and her institutions, and refuse by their presence to give countenance to what is looked upon as an unhealthy agitation and one certainly calculated to prejudicially affect the diplomatic efforts of our Government to arrange such a *modus vivendi* with our neighbors as will not discriminate against Canadian interests.

The methods employed by the accomplices of Mr. Erastus Wiman are various. After drumming up every possible sympathizer they call a meeting, and if, as has happened in most cases, but a very small number are present in response to their urgent appeals, they put a resolution which is declared to be carried unanimously, and which, by the aid of the telegraph system controlled by Mr. Wiman, is wired to every part of the country, and when appearing in the columns of pro American journals, is surmounted by prominent head-lines announcing that the "farmers of the county" have pronounced in favor of Commercial Union. If, however, there should be any present at a meeting who are opposed both to the policy and the tactics sought to be endorsed, the agitator's method is to, if possible, occupy the whole time of the meeting, or in the event of a loyalist getting the floor, to subject him

to constant interruptions and insult. A few instances will suffice. About two weeks ago a meeting of the Wentworth Farmers' Institute was held in the city of Hamilton. Although Mr. Valancy Fuller, the president and chief organizer lives in the county there were but twenty-five persons present entitled to vote, (nineteen for and six against) and this number was only secured by enrolling several new members during the progress of the meeting. Mr. Fuller and Mr. Shaw each spoke twice, occupying nearly the whole sitting, but when a farmer present rose to oppose their contentions he was deliberately affronted by being told that he was drunk, and the President took no notice of the insult. Mr. E. D. Smith, of Winona, also attempted to make himself heard on behalf of Canadian interests, and casually remarked that he wished some one better posted than himself were present to discuss his side of the question, whereat Mr. Shaw interjected the insulting comment "So do I" which was followed by (laughter and applause).

Mr. Shaw is the secretary of the Central Farmers' Institute and is therefore supposed to be an impartial officer, but his conduct warrants a widely different supposition.

Another meeting was recently held at Picton, and the *Gazette* of that town informs us that the speakers against Commercial Union were so interrupted and insulted that their friends left the hall, and "that there was an organized arrangement by those favoring Commercial Union to either prevent a full and fair hearing or to nullify the effect by a fusillade of interruptions."

If the promoters of veiled annexation are of the opinion that public sentiment can be won over to their cause by such disreputable tactics they will find themselves seriously astray in their estimate of the common sense of the people, who in Canada are a reading and thinking people. Any cause which cannot bear the light has little chance of vigorous or enduring growth.

ABSOLUTE GOVERNMENTAL OWNERSHIP.

THE Inter-State Commerce bill is likely to prove another exemplification of the utter uselessness and futility of half measures of reform. Nothing short of absolute governmental ownership of railways will cure the evil, and attempts to patch up the present system will only result in making confusion worse confounded. We suppose, as the result of our railway commission's "investigations," some such alleged reform will be attempted in Canada, but, if so, it will fail to accomplish any real good.—*Labor Reformer*.

The great trouble with some people is that they cannot be content to bear the ills they know of, and try to ameliorate them, but must needs fly or want to fly to those they know not of. Instead of legislating against monopolies and enforcing the provisions of laws thus made, by usual and lawful methods, they look to a paternal government to take charge of every imaginable interest and operate them for the general good. Sometimes the craze is in the direction of uncounted issues of fiat money; othertimes it is for the organization of anti-poverty societies and the suppression of empty pockets; sometimes it manifests a desire for the Government to take charge of railroads, telegraph lines and other methods of conveyance and transportation, and again that no man shall hold any title to

any land, and that even the title to the little home that shelters the family of the industrious, hard-working laboring man shall be vested in the Government. The natural and inevitable tendency of this sort of preaching and teaching is to anarchy and nihilism. Those whose improvidence has prevented them from accumulating wealth, either personal or real, are usually the ones who cry the loudest for the subversion of the existing order of things, demanding measures that are revolutionary and dangerous. Their desire is to take from the provident and frugal and distribute among the improvident, the idle and the vicious. Henry George, Father McGlynn and the whole gang of socialists in the United States are busily planting crops of dragon's teeth that will soon produce hordes of armed men, red-handed and ready to subvert society and bring sorrow to all lovers of law and order. Canada stands in danger of similar trouble through the teachings of those who would if they dared observe no law except that of their own wills. Lovers of Canada do not want any innovations looking to the making of fiat money, state ownership of railroads, state ownership of all land, etc; nor any such paternal government as will embrace such "absolute ownership" as the *Labor Reformer* longs for. It might do in Russia, or Turkey, but not in Canada.

THE MANUFACTURERS' "LITTLE INTEREST."

MR. THOMAS SHAW, the secretary of the Central Farmers' Institute, has on several occasions alluded to the manufacturing interests in a very offensive manner, and has also indulged in misleading statements as to the extent and value of what he is pleased to term the "manufacturers' little interest."

In order to expose Mr. Shaw's misrepresentations, I wrote the following letter which appeared in the *Toronto Mail* of the 5th inst.:

To the Editor of the Mail.

SIR,—I have noticed that on several occasions Mr. Thomas Shaw, secretary of the Central Farmers' Institute, has taken the trouble to misrepresent the action of the Canadian Manufacturers' Association and of myself. Heretofore Mr. Shaw's misstatements have been ignored and probably for this reason, he now considers himself absolved from a very careful consideration of the veracity of his assertions when dealing with the manufacturing interests. At a recent meeting of the Wentworth Farmers' Institute, held in the city of Hamilton, Mr. Shaw is reported to have spoken as follows:—"A Mr. Nicholls, who writes as secretary of the Manufacturers' Association of Ontario, accuses us farmers of trying to build ourselves up by pulling the manufacturers down. This, as you well know, is a calumny. All we ask is fair play and an opportunity to make the most of our energies, which cannot be obtained under the existing state of affairs. The farmers can, if they will, show this special agent of the manufacturers that they know not only how to govern their own affairs but that they are the balance of power in the Dominion. I must confess that I have been marvellously struck with the force, the common sense and the knowledge of the men who have been practically characterized by the secretary of the Manufacturers' Association as know-nothings."

In reply to Mr. Shaw's personal references contained in the above extract I would say, sir, that they lack the essential elements of truth and candor; that if he has read any of my letters to the press he knows that not a single line warrants his gratuitous fabrications, and I would further say that in

the discussion of a question of such moment, cheap personal clap-trap belittling a crossroads politician is neither the most effective nor dignified means of presenting one's views to the public, at a time when we are all sincerely desirous of arriving at an unprejudiced opinion as to which course would result in the greatest good to the greatest number.

I have not written on this question as secretary of the Canadian Manufacturers' Association. I have not accused the farmers of trying to build themselves up by pulling the manufacturers down, and I have never even by implication characterized the farmers as know-nothings. These denials are emphatic and the onus of proving his assertions lies with Mr. Shaw.

This same gentleman has said in reference to the manufacturing industries:—"But when this flourishing little interest tell the 200,000 farmers of Ontario that Commercial Union with the United States is not in the interests of Canada, that respectable body can surely afford to accept the statement as a good joke." Whilst regretting the offensiveness of Mr. Shaw's chosen language I must also differ with his deductions. It is claimed that the total annual production of Canadian farms is \$400,000,000 annually, truly a brave showing, hence the covert sneer at the industrial classes. But there are two sides to every question, and although in the last census year, 1881, our industrial establishments were neither as numerous nor as extensive as the present, I find that, according to the official figures, the value of their products amounted to \$309,000,000, and that they paid out in wages the enormous sum of \$60,000,000 for that year. From personal knowledge I venture the statement that were a census taken this year the total value of productions would exceed \$500,000,000, so that Mr. Shaw's jibe at the "manufacturers' little interest" was as injudicious as it was boorish and uncalled for.

Let me analyze these figures still further. Our total production of farm products is estimated at \$400,000,000, of which 10 per cent. or \$40,000,000 is exported, and 90 per cent. or \$360,000,000 enters into home consumption. Who buys this, and who pays for it? Apart from those engaged in professions and in commerce, what percentage of the annual amount of \$60,000,000 (now possibly \$100,000,000) paid by manufacturers to their employes goes into the pockets of the farmer? Supposing that free traders have all the time erred in claiming so persistently that the consumers pay the duty, and admitting, for the sake of argument, that in the event of Commercial Union the farmer would get an increased price for his horses and barley equivalent to the full amount of the duty now levied by the United States, would it offset the certain loss of custom he is now in receipt of from the mechanics and artisans, let alone those engaged in our financial institutions and in mercantile pursuits? Let me try and establish a conclusion. For the fiscal year ending June 30th, 1886, the total value of exports of horses to the United States was \$2,104,355, on which \$420,871 was collected as duty. Of barley, we shipped 8,528,287 bushels, valued at \$5,708,130, on which duty was collected to the amount of \$852,820. From the above it will be seen that on the items of horses and barley, about which we hear so much, the total value of the duty collected by the United States on imports from Canada amounted to \$1,274,000. Are the Canadian farmers willing to sell their birthright for this mess of pottage; or in other words, are they willing to jeopardize a sure and reliable home market which consumes 90 per cent. of their productions, in pursuit of a mythical advantage which the most strenuous advocates of Commercial Union have hitherto failed to put into tangible shape? I do not accept Mr. Shaw as the farmers' oracle in this matter, and I repudiate his assertion that nine-tenths of the farmers are of his way of thinking. At this stage of the question we require facts, not suppositions, and with Mr. Shaw the wish is very evidently father to the thought. The onus of proof again lies with Mr. Shaw.

To still further arrive at a correct interpretation of the official figures the following statement of the destination of our

exports of the principal items of farm production during the year 1886 will be found useful:—

	Exports to G. B.	Exports to U. S.
Horses.....	\$ 19,279	\$ 2,104,355
Horned cattle.....	4,998,327	633,694
Sheep.....	317,987	829,884
Butter.....	652,863	17,545
Cheese.....	6,729,134	15,478
Barley.....	11,248	708,130
Oats.....	1,147,968	75,817
Peas.....	1,739,917	377,003
Wheat.....	2,750,251	256,767
Totals.....	\$18,366,975	\$10,018,073

It is now in order to glance at the alleged market of sixty millions which Mr. Shaw and his superiors dangle before the eyes of the agriculturists. I quote from the United States statistics, and the figures are for the fiscal year 1886:—

	Value.
Total cereal crop, bush....	3,015,439,000 \$1,143,146,759
" potato " "	175,029,000 78,153,393
" hay " tons....	44,731,550 389,752,873
" horses, number	12,496,744 901,685,755
" mules. "	2,117,141 167,057,538
" milch cows "	14,522,083 378,789,589
" oxen and other cattle number....	33,511,750 663,137,926
" sheep "	44,759,314 89,872,839
" swine "	44,612,836 200,043,291

\$4,011,639,963

It must be borne in mind that the above figures deal with only some of the more important farm productions similar to our own, and do not include the items of butter and cheese, which would swell the total immensely, but sufficient data is given to show that our friends across the line appear to not only produce quite sufficient to meet the most of their own requirements, but export their over-production to the extent of about \$550,000,000 annually.

Now look at the question from a different standpoint, and critically examine the value to the commonwealth of the "little interest" of which Mr. Shaw speaks so disparagingly. It has been claimed that seven-tenths of the working population of the Dominion are engaged in agricultural pursuits. This statement is wide of the mark, as according to the census returns but 40 per cent. are employed in agriculture, whilst 20 per cent. are employed in manufacturing industries, the remainder embracing those engaged in commerce, the professions and domestic service. It is not my object to belittle the importance of the farming interests, but I am endeavoring to get at the facts, which I take as I find them. The 40 per cent. engaged in agriculture turn their capital over but once a year and spend little of what is received in payment for their sales in comparison to the other classes. The farmer grows his own subsistence, and what he may spend outside of this for cottons and woollens, stoves, furniture, etc., amounts to a comparatively small sum per head per annum. It is far different with the other classes, who spend a large percentage of their total income for such necessities of life as are produced by the farming community. This much has been said in order to demonstrate the value of the home market to the farmer, and for the purpose of working up to the point at which I will attempt to prove the constantly increasing value of this home market. Again, referring to the census report, I find that for the period embraced between the years 1871 and 1881, the increase in our population in the towns and cities was 33 per cent., whilst during the same period the increase of the rural population was but 15.6 per cent. These are instructive figures and afford ample food for reflection. The best authorities all agree that in the great European markets the wheat from India will soon

displace that exported from this continent. When that time comes what will the United States do with her annual surplus production of 100,000,000 bushels of wheat, which is the mean of the total exports from that country during the past eight years? With our constant additions to our urban population, the home market, in the time of trial, will be found to be the only market which is safe and secure.

Another circumstance that is worth consideration is the fact I have previously referred to, viz:—That the capital of the farmer is generally invested in his land, buildings and implements, and that the interest on the capital thus invested is represented by the net results obtained from his crops, live stock, dairy products, etc.; the capital usually remaining intact with constant additions in the shape of improvements which increase the original value of the farm. A large proportion of this capital is "turned over" but once a year, when the crops are harvested. On the other hand, the merchant or manufacturer may own neither land nor buildings, but the capital invested in his business may be "turned over" as often as once a month, circulating in every direction, and giving employment to an army of assistants of high and low degree, who spend a large percentage of their earnings for those necessities which our friends the farmers are always ready to sell for hard cash.

From a careful review of the situation it seems to me that thriving cities, towns and villages at the farmer's door, and that prosperous merchants and diversified industries creating an army of consumers on the spot, are the most reliable factors in the prosperity of the farmer.

There are many other deductions which may be drawn from the official statistics of this country and of the United States, but space will not allow me to encompass them within the ordinary limit of one newspaper letter. Yours, etc.

TORONTO, June 29

FREDERIC NICHOLLS.

On a future occasion I hope to be able to prove by a comparison of the total indebtedness of the two countries that we are not as "hopeless and helpless" as Mr. Wiman would have us believe. I hope to discuss the arguments which have been advanced in favor of a continental "Zollverein," and to show that the only feasible arrangement that would be fair to the Canadian minority would not be acceptable to the American majority, and in discussing these and other problems which present themselves I shall endeavor to do so in a spirit of firmness and moderation befitting the importance of the issue at stake.

If I remember rightly it was Cardinal de Retz, who was responsible for the conception of the following political maxim. "The possibility of remedying imprudent actions is commonly an inducement to commit them." Some of the less temperate advocates of Commercial Union appear to have adopted this phrase as their watchword, but I ask in all sincerity if it is possible to remedy the imprudence of publishing to the world that our loved country is "helpless and hopeless" even though all the facts are against such an unwarrantable calumination.

SOME of the Maritime Provinces are having a fishing boom in other specialties than codfish. Extra large forces are engaged in catching lobsters, the run of which is said to be better this year than for several years past. A few days ago one concern near St. John, N.B., captured about 120 tons in two nights. One concern employ 20 hands and have 1,000 traps, and another employ 30 hands and have 2,500 traps, and are having similar good luck. Dark Harbor pond, on Grand Manan, which is entirely land-locked, has been found to be filled with an excellent quality of sardines, the water being literally alive with the fish. Hundreds of hogheads of them have already been taken out, and large prices are being realized for them.

◇ THE ◇
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Editorial Notes.

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.

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.

The Minister of Customs sailed for England on the 7th, and the Minister of Finance leaves on the 18th inst. for the same destination.

The New York *Commercial Advertiser* asserts that the membership of the order of the Knights of Labor has fallen from 1,000,000 to less than 600,000 within the last fourteen months.

The Permanent Exhibition of Manufactures, in this city, is now ready to receive exhibits. Messrs. Nicholls and Howland will be pleased to furnish intending exhibitors with full particulars.

COMPETITION is the life of trade. Since the C.P.R. Steamship line from Vancouver to China has been established, the Oriental Steamship line from San Francisco have reduced their fare to Hong Kong and Yokohama from \$300 and \$250 respectively to a uniform rate of \$200.

The aggregate imports of pig iron into the United States during the first four months of the current year amounted to more than 140,000 gross tons, and of scrap iron to more than 128,000 tons. The United States duty on pig iron is \$6 per ton, and the Canadian duty only \$4.

The annual membership fee of the Montreal Board of Trade has up to the present been six dollars. By resolution of the Board it was decided to increase the entrance fee to one hundred dollars, and the result has been that several hundred new members have been enrolled prior to the new provision taking effect.

A meeting of the Canadian Canned Goods Association was held in the Walker house in this city on the 13th inst. T. M. Nairn, Aylmer, President, occupied the chair. The members in attendance were W. H. Boulter, Picton; A. S. Carpenter, Hamilton; M. A. Ferguson, Delhi; S. Fenton, St. Catharines.

A PROCLAMATION has been issued from Ottawa, providing that the value of goods entered for duty on invoices made out in foreign currency shall be computed according to a schedule annexed to the proclamation, and that all invoices of foreign goods shall be reduced to Canadian currency at the rates assigned to the foreign currencies in the schedule.

The American exports of wheat and wheat flour from eight Atlantic ports and California and Oregon, from July 1st, 1886, to June 25th, 1887, have been, according to *Bradstreet's*, 155,756,283 bushels, and the consumption for food, seed and manufacture is placed at 335,000,000 bushels. The home crop of 1886 was 457,218,000 bushels.

THERE are very few people, who correctly estimate the value of diversified industries to a community, and we reproduce the following item, which is going the rounds of the press as a striking illustration.—The skins of 7,000 goats and 20,000 sheep have been used for the covers of Gen. Grant's book, of which 312,000 sets have been sold.

THE total duties collected at the port of Toronto during the month of June was \$399,348.73, as against \$236,764.94 during the month of June last year, an increase of \$162,583.79. The total amount of duties collected during the fiscal year ending June 30th, 1887, was \$4,273,038.78, which was an increase of \$853,773.69 over those collected during the previous fiscal year.

As far as that "natural product," standing timber, is concerned, the states of Michigan, Wisconsin and Minnesota do not appear to be in a suffering condition, it being estimated that the timber now growing in these States amounts to one hundred and seventy billion feet. And still Mr. Wiman and the other Annexationists tell us that the people of the United States are greatly in want of Canadian timber.

A NUMBER of recent increases in the tariff rate of duty were adopted for the purpose of meeting German competition. The rate of wages paid to free labor in Germany is ridiculously low when compared to what the Canadian artizan and mechanic receives, and consequently renders competition difficult. But as no less than 17,636 prisoners in Prussia are hired out to manufacturers at a rate of from six to twelve cents a day and board, the difficulty of competition is almost insurmountable.

By reference to their full-page illustration of the premises, shown elsewhere in this issue, an accurate idea may be had of the property owned by the Canada Screw Company in the town of Dundas, Ont., which they are offering for lease or sale. Dundas is one of the most flourishing manufacturing towns in the Dominion, possessing a great many natural advantages, and all of those necessary to enable manufacturers to operate their works to the best possible advantage, and with the greatest economy. It is connected by railroads with all commercial centres, has gas and a complete water system, telephone exchange, telegraph, etc., and local taxes are very moderate. The property offered for sale is quite extensive, well located, buildings all in good condition, with steam plant, etc. The Screw Company have outgrown these works, and are erecting much larger ones in another locality, hence their desire to sell or lease. Manufacturers looking for advantageous locations would do well to investigate the merits of the property here alluded to.

At a recent meeting of the London Trades' Council the following resolution was adopted: "That in the opinion of this council the wages and conditions under which the men and

women engaged in chain-making in and around Chadley Heath carry on their industry are a national disgrace, and the workers are deserving of cordial support and sympathy from the trades of the country in their righteous struggle to increase their present wages of 8s. for men and 3s., 6d. for women for a week of sixty hours' labor." "The men and women engaged in chain-making" alluded to live in Great Britain, and are suffering from that Free Trade policy which makes such wages possible and prevalent. Men and women in Canada who work for their living—even the very poorest of 'hem, engaged in the least remunerative work—get much more than 32 cents a day for men and 14 cents for women, but that is just what "the men and women engaged in chain-making in and around Chadley Heath," England, get; and the workingmen and women of Canada would be forced to compete with just that class of labor if the protection of our National Policy was removed.

To those who claim that *Commercial Union* is the only means of settlement of the fishery dispute existing between the United States and Canada, and who fear that the refusal of Canada to consent to such an obnoxious union would lead to war, we suggest that there are plenty of good hiding places within the Dominion where they could take to the woods and thus escape the enrolling officer on one hand and Yankee bullets on the other. In a pamphlet recently issued setting forth the advantages and importance of the projected Maskinonge and Nipissing railway we find the following: "There is no use concealing the fact that, on account of the extensive length of our frontier, and the small depth of the settlements in the Provinces of Quebec and Ontario, Canada would be exposed to serious dangers in the case of a war with our neighbors. The best means of making up for this state of affairs, which might cause a national disaster, would be the establishment behind our mountains of a back country which could be rendered almost impregnable by the massing there of a strong and vigorous population. The region settled by the Maskinonge and Nipissing railway would become the citadel of Canada, our population would find there a secure refuge in the hour of danger, and the railway would be a military route whereon our armies could circulate easily and safely."

MR. DANIEL MANNING, late Secretary of the Treasury of the United States, is a pronounced Free Trader, and belongs to that moneyed aristocracy of New York who accumulate their wealth by importations of foreign merchandise. As an officer of the law, while in office he was bound to uphold the law, whether he liked it or not. Previous to his leaving office, speaking of the proposed reduction of the tariff, he said: "I believe in relieving the burdens of the people. It is not right that localities like Pennsylvania should control the entire economic policy of the country." The charlatanism of the remark is apparent, when it is remembered that all fiscal measures legislated upon in the United States Congress must of necessity originate in the House of Representatives; that that body consists of 325 members chosen from as many districts embraced in all the states, and that Pennsylvania has but 28 members. One hundred and sixty-three members—a majority—could change the tariff laws of the United States if they desired to do so, but never since the adoption of the exist-

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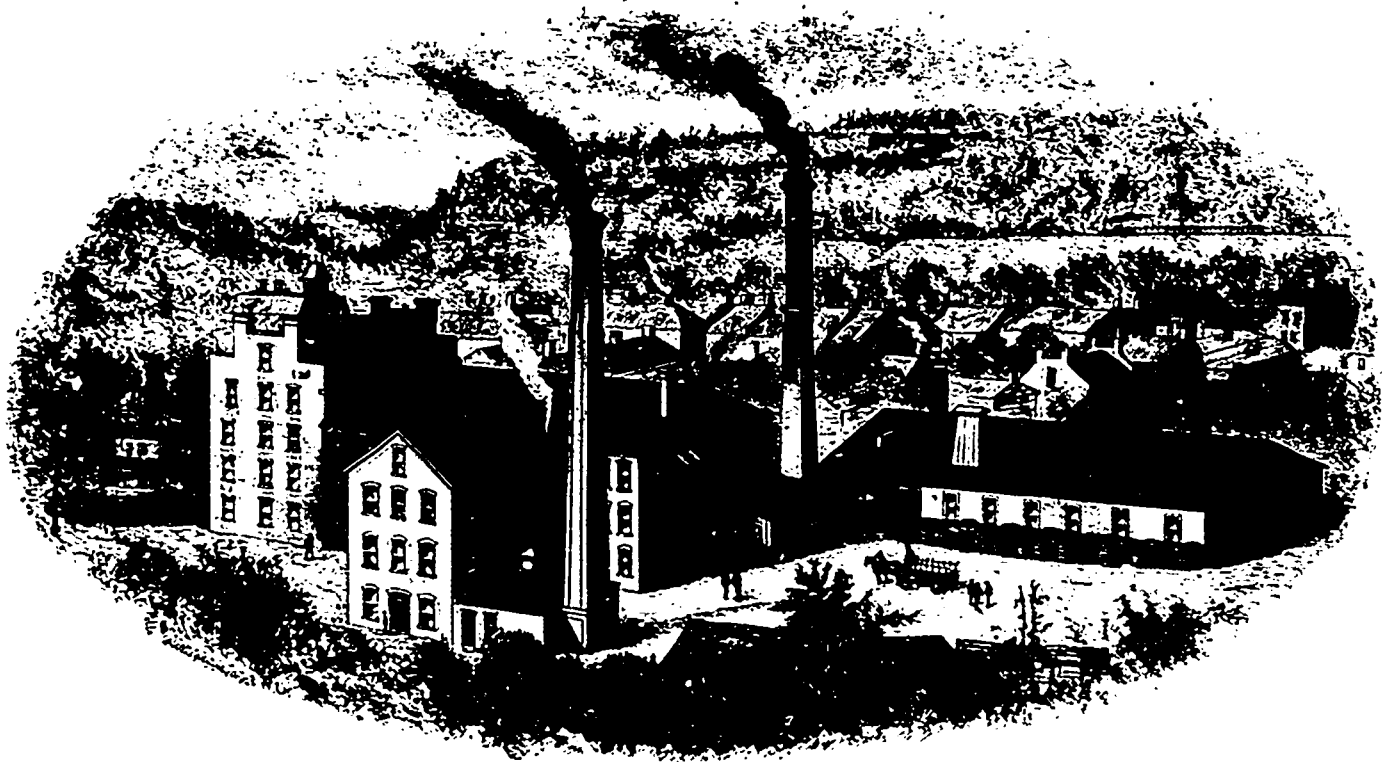
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ing tariff in 1865 has the country demanded its abrogation—it has been ratified and endorsed regularly every two years ever since that time. There are many sore-head politicians in Canada of the Manni. g stripe, who would be glad to see our National Policy destroyed, but the people won't have it. It has come to stay.

THE increase of the Austrian duty upon imports of metal goods is not relished by German manufacturers who have heretofore largely controlled the Austrian market. *Kuhlows German Trade Review*, discussing the matter, says. "The tax upon 'fine' metal goods has been raised from 15 to 20 Gld., that upon 'finest' metal goods from 30 to 50. Among the 'finest metal' goods are articles of aluminium or nickel, toys pins, bells, handle pieces, buttons, thimbles and so forth. For many of the above articles the price of 100 mks. per 100 kegs will barely be obtained, so that the tax exceeds the value of the goods. Export is of course out of the question. Germany imposes upon most of the above-named articles a tax of 30 mks per 100 kgs. Among the 'finest' metal goods are also included Britannia metal spoons, forks, &c. The export of such articles as these to Austria is totally destroyed. Britannia metal spoons cost at the present moment about 230 mks. per 100 kgs.; Britannia metal (zinc, antimony and copper) costs about 185 mks. per 100 kgs., and with this difference of price, the articles in question have been burdened with a tax of 100 mks. per 100 kg. It is clear that our metal goods trade must renounce all idea of export to Austria."

FOR some time there has been in active operation a successful Millers and Manufacturers' Fire Insurance Co., and we are now pleased to have an opportunity of recording the fact that there has been organized a Manufacturers' Life and a Manufacturers' Accident Insurance Co. The following is the *Mail's* report of the first annual meeting:—

The Manufacturers' Life Insurance Company, which was organized in this city yesterday, is one of the strongest institutions of its kind on this continent. The capital is \$2,000,000. All the scrip was issued half an hour after the termination of yesterday's meeting, and a large number of applications had to be refused. The company will start business to-day at its offices, 38 King street east. The President, Sir John Macdonald, came from Ottawa for the express purpose of presiding. Sir Alexander Campbell, Mr. George Gooderham and Mr. William Bell, of Guelph, are the vice-presidents, and the directorate embraces some of the best known men in financial and commercial circles in the Dominion. Mr. J. B. Carlile, formerly of the North American Life, is managing director, and Mr. J. D. Henderson, for many years the active agent in this city of the Canada Life, is the chief agent and superintendent of agencies. With such experienced men at the helm the Manufacturers' Life is bound to make rapid progress.

MR. PERLEY, M.P. for Assiniboia, protests against the thirty-five per cent. duty on agricultural implements. He thinks that the old duty of twenty-five per cent. was high enough. He says that the manufacturers have combined to keep up the prices of implements, and that thus the duty becomes a direct tax, of which the treasury does not receive the benefit. "The combination therefore is a powerful argu-

ment against the duty." Mr. Perley, although an M.P., does not seem to comprehend that the Government has placed a duty of thirty-five per cent. on agricultural implements not only to raise revenue on importations of such articles, but to encourage their manufacture in Canada also. If Canadian manufacturers "have combined to keep up the prices of implements," what of it? Farmers combine to keep up the prices of farm products; lumbermen combine to keep up the price of lumber, and merchants combine to keep up the prices of their goods. If the implement makers place too high a value on their products, Yankee manufacturers would be quick to see their opportunity and rush in to supply the demand. If there was no tariff Yankee manufacturers would undersell Canadian manufacturers until they were driven to the wall and forced to stop work when they would quickly combine and elevate prices much higher than they are now, and Canadian farmers would have to pay them, too.

THE Manchester, Eng., *Textile Manufacturer* says that "the conduct of Americans in commercial matters has alienated English sympathy from them," the "conduct" having reference to the American tariff. This is only one of the echoes of the cry constantly going up in Great Britain against all other peoples who encourage their manufacturing industries by protective tariffs. The same cry goes up against Canada, and we are told that we, too, are alienating English sympathy because we prefer to see thousands of Canadians working in Canadian factories and industrial establishments, and Canadian farmers finding quick and remunerative sale for their products at home, rather than sustaining thousands of other workers in other countries, and making our farmers dependent upon foreign markets for what they may have to sell. We do not see, however, that the "alienation" of English sympathy is having any very depressing effect upon our Yankee neighbors, and we are quite sure it doesn't hurt us here in Canada. Our American cousins and we are fairly happy considering the large amount of "sympathy" we are not getting from British manufacturers. These admit that they have to bear the onus of the American and the Canadian tariffs that the tax is taken out of their pockets. And there is where their "sympathy" reposes. The question of "sympathy" on the part of British manufacturers would never occur to them if their pockets were not affected; and those who insist that the consumer and not the British manufacturer has to bear the burden of the tariff are mistaken.

THE "commercial reciprocity" organs are howling against a Canadian tariff of 20 per cent. and shouting for a Yankee tariff of 40 per cent. — *Bellerive Intelligencer*.

AMERICAN shoe-making machinery is being largely introduced into Germany. Manufacturers are forced to adopt American makes more and more each year on account of the economy secured.

LESS than half of Cass county, Dak., is under cultivation, but in 1886 it produced 5,554,845 bushels of wheat from 370,323 acres. To handle the crops there are forty-three elevators and nineteen warehouses, costing over \$2,000,000.

IN one week there was shipped from Buffalo by canal, 2,083,408 bushels of wheat, while all the railroads combined only hauled 434,100 bushels into New York city during the same week. Evidently the canals have not yet lost their usefulness.

A TRAIN is now running on the Connecticut River railway which is lighted by electricity from a dynamo in the baggage car, run by the car wheels. This is intended to take the place, to some extent, of storage batteries, and the inventor is satisfied that he has made a workable contrivance.

CANADA is as much a part of the British Empire to-day as Pennsylvania is a part of the United States, and Great Britain would no sooner permit Canada to make a commercial union discriminating against British trade than the United States would permit Pennsylvania to make a similar arrangement with England. — *Boston Journal.*

COMMENCING with its issue of July 1, *Light, Heat and Power*, of Philadelphia, became a semi-monthly journal. The change from twelve to twenty-four issues per year was necessitated by the rapidly increasing size and importance of the paper, and welcome as it has heretofore been, it will be all the more so as a semi-monthly visitor. It is a representative of the legitimate gas industries of America.

THE farmers of this country near our northern borders are not in favor of reciprocity with Canada. This somewhat taking phrase means only the removal of tariff duties which now protect our agricultural products from Canadian competition. No doubt this would prove a great advantage to Canada, but the action of that Government and people on the fisheries question is not encouraging to grant favors to our own disadvantage. — *Manufacturers' Gazette, Boston, Mass.*

WE have said that there is already a serious danger; that the belief in Protection under various fantastic guises is growing rapidly. We will go further and say that if the question of moderate protection were placed before the country to-morrow as the single issue of a general election, unassociated with any confusing element, the result would show a Government pledged up to the hilt to reverse our fiscal system. This is a bold assertion, but it is not made carelessly. — *Shoe and Leather Record, London, Eng.*

Bradstreet's contains an estimate of the cost, direct and indirect, of the strike of the Connellsville coke workers, as follows:—"The coke strikers themselves have sacrificed from \$600,000 to \$800,000 wages, about 11 per cent. of their annual earnings, in an endeavor to secure a 12½ per cent. advance. About 3,000 of them are believed to have secured the advance. But their idleness threw out at least 20,000 iron, steel, and other employes who have lost, to date, wages aggregating about \$1,400,000. The total wages lost is certainly \$2,000,000, perhaps \$2,200,000. The apparent gain is an annual increase in wages to the Carnegie cokers of about \$200,000."

GERMAN trade with Canada amounted to more than 2½ million dollars in the year 1886 against \$370,000 in 1877. Although, according to the report of the Austrian Consul, the direct steamship route between Hamburg and Montreal adds considerably to the briskness of trade on both sides, it cannot be denied that the Germans accustom themselves more easily to the business habits of the Canadians; the German manufacturers do their own travelling, establish special points for the consignment of their goods, and by this means are driving in certain instances the English competition out of the market. — *Kuhlor's German Trade Review.*

THE farmers are being told that a rapid depreciation is going on in the value of farm property. But if the farmers will go to the official statement of the Ontario Bureau of Industries they will find that from figures furnished the Bureau by farmers themselves, the farm property in the province is increasing with immense strides. He will find that during last year the value of farm properties in Ontario increased by the amount of \$20,000,000. As this information comes from a Reform Government, it must of course be true, and we should hear no more from Sir Richard and others of the rapid depreciation of farm property. — *Cobourg (Ont.) Sentinel-Star.*

MESSEURS CORNELIUS AND W. K. VANDERBILT, of New York, are about building a large number of small houses in the suburbs of New York city, with every comfort and convenience, which they will sell to working-people at cost. The purchaser will be insured against the loss of property, if he meets with misfortune before the whole amount is paid up. The houses will be sold on the instalment plan, in monthly or yearly payments, which will not amount to more than a fair rental. The life of the purchaser will be insured to the extent of the unpaid amount of the purchase price. The policy will be

held as a mortgage, and if the purchaser dies, the amount of the policy pays off what is owing on the house, which is then clear for the heirs.

A CORRESPONDENT has written to us propounding the following question, which we confess an inability to answer, and which we would like very much to have the authorized representative of some labor organization reply to:—"If I am at work in a manufacturing establishment as an operative, and if, after I have been at work at this place for fifteen years, a union is formed consisting of men in the same trade, both inside and outside of the factory I am working in, and if, for reasons of my own, I deem it inexpedient to join this union, am I a seab? In enforcing the rules that none but union men are to be employed, is it the intention of the representatives of the union to compel my employer to discharge me if I do not join the union, although he may have no other cause for dissatisfaction? If this is a rule, is it not an infringement on my rights as an American citizen?" — *Boston Herald.*

THE latest Canadian measure of retaliation for the American protective tariff on lumber appears to be meeting with a fair degree of success. At the last session of Parliament the export duty on logs was doubled. This act was aimed at those Michigan lumbermen who profit by the United States import duty on lumber, and yet have bought pine lands in Canada in order to get a cheap supply of logs. It now appears that the importation of logs has been given up. A concern is mentioned that owns 100,000,000 feet of Canadian pine, and put in 12,000,000 feet of logs last winter with the intention of towing them to Tawas and Saginaw, but has finally abandoned the project. The logs have been sold to a Boston concern and are being manufactured at Midland, Ont. Others in like manner have got out of or want to get out of their Dominion investments. Meanwhile the Canadian Government is ready to permit free exportation of logs whenever the United States allows free importation of lumber. — *Bradstreet's.*

WE quite agree with our contemporary *Iron* in its remarks on the rating of machinery. In these days, when our home industries are gradually being destroyed by the competition of freely-imported foreign manufactures, it is not unreasonable to expect that some effort should be made by ourselves to render the process of extinction as gradual as possible. The Papermakers' Association are petitioning the House of Commons that in any bill which may be introduced to amend the law of rating, not only may all uncertainty be removed as to the nature of the hereditaments liable to be rated, but that all machinery of the nature of personal chattels—the mere furniture in fact of a mill or manufactory, shall be expressly exempted from local and imperial taxation. There is no doubt that the cost of production in this country is much enhanced by the burden of rates and taxes upon mills and manufactories, which is becoming every day more serious, and from the pressure of which our foreign competitors are to a large extent exempt. — *Machinery Market, London, Eng.*

FIFTY years ago the *Sirius* and *Great Western* started from England on a voyage across the Atlantic ocean to disprove the assertion of the learned Dr. Lardner, that it was a physical impossibility for a vessel to steam to America. While the conclusions arrived at by the distinguished doctor were no doubt satisfactory to himself, they were based upon altogether fallacious premises, namely: that vessels could not be built in excess of 800 tons and of 200 horse power. Not only have vessels since steamed across the Atlantic in vastly increasing numbers each year, but steamers ten times the size, with sixty times the horse-power, are to-day ploughing the sea. Could the positive scientist of fifty years ago behold such a steamship as the *Umbrina*, with its 8,000 tons and 12,000 nominal horse-power, he would no doubt lose all faith in human science and prophecy. The speed of eight miles an hour of the first steamers that steamed across the Atlantic, said the Earl of Ravensworth in a recent address on the subject, has been more than doubled, and in vessels almost ten times their size; and in this jubilee year of transatlantic steam navigation, the *Great Eastern*, which was built thirty years ago for the Australian trade, but, as Lord Ravensworth said, had, strange to say, never been to Australia, is at length being fitted out for the work for which she was built, and the jubilee year of steam navigation may see the most remarkable specimen of the naval architecture of this period of extraordinary progress, after thirty years' waiting for the trade to be equal to her dimensions, fulfilling the destiny intended for her by her great designer. Wonderful are the changes in an ordinary lifetime. Few can realize that the present reign of Queen Victoria is co-eval with the era of steam navigation, yet such is the fact. — *Cleveland Iron Trade Review.*

Mr. Out. Another year. All busy at the Red. Mr. place at Mess. Iron Fe. The capacity. The by Geo. the mil. Mess. Toronto. The \$85,000 destroy. Mr. keep up. Mess. inducen. The is enlarging. The down to superin. Mr. J. Henry I. and est. Kerr. electric. The c. P. C. the imp. Mr. I. working machine. Mr. I. manager intends. The were bu. locating. The I. purchases. Freres. The I. Samuel being fu.

Manufacturing.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

MR. D. H. DORMAN will start a new woolen mill in St. Thomas, Ont.

ABOUT 350,000 logs have been brought down the Moira river this year.

ALL the manufacturing industries of Paris, Ont., are reported very busy at present.

THE Alberta Lumber Company are building a large lumber mill at Red Deer, Alberta.

MR. E. B. EDDY, of Hull, is erecting a paper pail factory at that place at a cost of \$20,000.

MESSESS. BROADFOOT & BOX, of Seaforth, will enlarge their furniture factory at an expense of \$10,000.

LETTERS patent have been issued incorporating the Davy Excelsior Iron Fence Company of Kingston, Ont.

THE saw mill of Messrs. Gilmour & Co., Trenton, Ont., has a capacity of 350,000 feet of lumber every 10 hours.

THE Marquette flour mill at Portage la Prairie has been leased by Geo. W. Bourne, who was head miller while E. McDonald had the mill.

MR. HESS BROS., of Listowel, Ont., manufacturers of furniture, propose transferring the chair department of their works to Toronto.

THE Simcoe Woolen Company, of Simcoe, Ont., have been granted \$5,000 by that town to enable the reconstruction of their recently destroyed mills.

MR. S. J. MOORE, Hamilton, Ont., manufacturer of tanners' and cannery tools, etc., informs us that he is forced to work overtime to keep up with orders.

MESSESS. CLARK, HARRIS & Co., of Toronto, manufacturers of furniture, propose removing their works to Ingersoll, Ont., if sufficient inducements are offered.

THE *Herald* reports that Mr. John F. Cram, of Carleton Place, is enlarging his premises for the purpose of tanning sheep skins, and making colored finishing leather.

THE Ontario Car Works at London, Ont., which have been shut down for some time, are about to resume operations under the superintendency of Mr. J. B. Burland.

MR. J. D. SMITH, of Toronto, has bought the saw mill of Messrs. Henry Bros. at Randwick, Ont., and will remove the machinery to and establish a new mill at North Bay, Ont.

KEER BROS., founders and machinists, Walkerville, Ont., are constructing a 10x16 stationary engine to drive the cars of the electric railway between that place and Windsor.

THE enlargement of the buildings of the rubber factory at Granby, P. Q., is being rapidly pushed forward, and it is expected that the improvements will be completed in a few months.

MR. H. W. PETRIE, of Brantford, Ont., manufacturer of wood-working machinery, has recently filled a large order for such machinery for a ship-building concern at Liverpool, N.S.

MR. LYMAN MILLER, formerly of Woodstock, has been appointed manager of Messrs. Harvey & McQueston's mill at Hespeler, and intends doubling the capacity of the mills for next season.

THE managers of the London Chemical Company, whose works were burned a short time since, are considering the advisability of locating their manufactory at Petrolia instead of London.

THE Pike River mills, Notre Dame de Stanbridge, Que., have purchased the tweed mill adjoining theirs, formerly owned by Gosseli Freres, and yet Manager Priest cries out for "more room."

THE Hart Emery Wheel Company, Hamilton, Ont., of which Mr. Samuel Briggs is manager, are operating their works full time, being full of orders. Their emery wheels are in strong demand.

THE Ontario Canning Company, Hamilton, Ont., under the management of Mr. Egerton De Cew, are doing a large and lucrative business this season in packing Crown Brand fruits, vegetables, etc.

MESSESS. A. MAIN & SON, Hamilton, Ont., are one of the largest manufacturers of rope and cordage in Ontario, the senior Mr. Main has been in the business in his present location more than thirty years.

THE Waterloo Woolen Company are at present constructing a new reservoir of four times the capacity of the old one. They get their supply from springs on the premises. Mr. Morley is hydraulic engineer.

WEALTHY parties of Cleveland, Ohio, are said to be in correspondence looking to the re-opening of the steel works at London, Ont., giving employment to probably 200 hands. Another favorable result of the N.P.

MESSESS. MOORE & OSTLER, of Hamilton, Ont., have bought out the business of Messrs. R. Spence & Co., manufacturers of files. The business, we learn, will be continued under the old firm-name of R. Spence & Co.

MESSESS. J. LEITCH & SON, proprietors of the Central Iron Works, Hamilton, Ont., inform us that they are very busy manufacturing elevators and hoisting machinery for stores, mills, warehouses, etc., of which line they make a specialty.

BERLIN claims to have the largest button factory in America, the largest shirt factory, the largest corset factory, the largest felt boot factory in Canada. It has the largest tannery, and one of the largest furniture factories in Ontario.—*Monetary Times*.

AN Ottawa despatch says:—The phosphate market is very stagnant at present. No transactions have been recorded of late, the price remaining at \$14.50 per ton. There is little demand just now for fertilizers in England or Germany.

THE Hamilton Brush Company, Hamilton, Ont., are doing a gratifyingly large business this season, as we are informed by Mr. James O'Brien, of the concern. They are manufacturers of hard rubber set and bound and other lines of brushes.

MESSESS. FORBES & Co., Hespeler, have just got out new samples of fine worsteds for the spring trade, and intend giving English goods a hard run, and from all appearances will do so as their patterns are models of taste both in design and coloring.

MESSESS. C. RICHARDSON & Co., Toronto, manufacturers of pickles, sauces, preserved fruits, etc., have removed their works from their old premises on Queen street, which had become too contracted for them, to new and commodious quarters on River street.

MESSESS. S. CRANDALL of Moncton and four Philadelphia gentlemen have become incorporated for the purpose of prospecting for antimony at Belleisle, Kings County. The capital of the company is \$50,000 in ten thousand shares.—*Moncton (N.B.) Times*.

MR. JOSEPH HERALD, of Hamilton, Ont., manufacturer of pianos, has recently moved into new and commodious quarters specially built for the purposes of his business, and where he will continue to make the instruments which are so well known in Canada.

MESSESS. W. R. BROCK & Co., Toronto, wholesale dealers in textile fabrics, are about to make a very large addition to their store-rooms, at the corner of Bay and Wellington streets. Contracts have been let for raising it another story, making the building five stories high.

THE Halifax Sugar Refinery, located at Woodside, near Halifax, N.S., was sold at auction under foreclosure of mortgage on June 28th. Mr. G. E. Francklyn, on behalf of himself and Messrs. J. C. Fraser and P. Simpson, trustees, becoming the purchaser for \$190,000.

THE exports of iron and steel from Great Britain to the United States during the first four months of 1887, were 454,075 gross tons; during the corresponding time in 1886, they were 235,970 gross tons, showing that the amount this year was nearly double that of last year.

A FULL staff of employes are busily engaged in the Paris carpet factory, and additional facilities have had to be provided in order to accommodate the growing demand of the company's business. Two new looms have recently been added, and extra storehouse room has been secured.

THE Pioneer Oatmeal Mills at Portage la Prairie were closed on Friday last. The present machinery and the whole interior of the

mill will be renovated and a large amount of additional mechanical facilities, including a new engine, will be placed in position. — *Winnipeg Commercial*.

The Dominion Hat Company, of Hamilton, Ont., of which Mr. John Tunstead is manager, inform us that the present has been a very profitable season in the hat trade, and that they have sold large quantities of goods. Their lines embrace stiff, flexible and soft fur felt hats in large variety.

The *Thorold Post* of last week contains a long descriptive notice of the basket factory of Mr. Geo. H. Williams. The establishment which employs forty-five hands, is run by a 12 h. p. engine, and it is the intention of the proprietor to largely add to his facilities for manufacturing, by next spring.

Messrs. BURROW, STEWART & MILNE, Hamilton, Ont., manufacturers of stoves, scales, malleable and grey iron castings, etc., inform us that business in lines other than those depending upon iron castings is fairly good. The strike on the part of the moulders interferes with the stove business very considerably.

MR. WALTER WOODS, of Hamilton, Ont., informs us that he is at work preparing a new catalogue which he expects soon to present to the trade. He is a manufacturer of and dealer in brooms, wood, willow ware and grocers' sundries, an enumeration and very brief description of which would fill a large book.

The Toronto Portable Gas Company only commenced operations in Toronto in December last, but their method of illumination has already been endorsed by several leading citizens who have introduced it into their establishment. Mr. J. B. Burns is the general manager, and the offices of the company are at 118 Bay street.

A SAMPLE of ore taken from the gold mine at Kaladar, Ont., has yielded \$30 per ton. An English company has proposed to erect works at the mine and take its pay in percentage. The owners of the mine are H. M. Deroche, J. H. Downey, Napanee; J. Guana and A. P. Wickwire of Kaladar, and Father O'Donoghue of Belleville.

The Hamilton Brass Manufacturing Company, of Hamilton, Ont., are manufacturers of engineers and plumbers' brass goods, and all kinds of brass castings, vacuum lubricators, flue cleaners, portable lawn fountains, etc. Mr. T. J. Carroll, general manager, informs us that the works are very busy, being run full time to keep up with orders.

BALKWELL'S stone flour mill at Rapid City continues to hold out against the new roller mill. The *Spectator* of that place says: "This mill continues to do a good business, as a great many farmers prefer stone ground flour to the roller process. Balkwell is putting in some improvements and intends to turn out good work in future."

The Hamilton Scale Company, of Hamilton, Ont., of which Messrs. Osborne & Co. are proprietors, are manufacturers of all styles of improved standard scales, rail and track, warehouse, grain hopper, farmers' dairy and platform scales, etc. They make a specialty of manufacturing railroad, warehouse and mill trucks and coffee mills.

Messrs. WM. LAURIE & Co., Louiseville, Que., manufacturers of spools, bobbins, and other textile mill supplies, call the attention of the trade to some of their specialties. They manufacture all sizes and patterns of spools and bobbins for cotton and linen thread, machine twist, sewing silk, etc., and for cotton, woolen and silk manufacturers.

The Hamilton Industrial Works Company, of Hamilton, Ont., are manufacturers of specialties, among which clothes wringers (ten kinds), mangles (three kinds), washing machines (two kinds), churns, carpet sweepers, ice-cream freezers, meat choppers, stovepipe shelves, trucks, etc. They also do nickel-plating, japanning, galvanizing, tinning, etc.

The Central Bridge Works sent out a bridge on Thursday which was shipped *via* the Grand Trunk Railway to Mitchell, Ont. The bridge was consigned to the Council of Fullerton Township. Business at the Central Bridge Works is brisk. The huge steam hammer, which is in operation every day, is the object of much interest. — *Peterborough Review*.

The Beaver Saw Works at Hamilton, Ont., formerly owned and operated by Messrs. S. H. Pocock & Co., have changed hands, Mr. Pocock retiring from business. The new proprietors are Messrs. J.

P. Haynes and J. W. Thurston, two active, energetic young men, who are manufacturing a very superior quality of saws for which they enjoy a large demand.

The Toronto Fringo and Tassel Works are producing this season some remarkably bright and handsome designs in applique work. Many of the floral and figure patterns are such that it would seem impossible for goods of foreign manufacture to excel them. They report a good demand during the past season for their chenille cords. — *Journal of Fabrics*.

The trustees of Cornell University, at Ithica, N. Y., have recently sold the timber standing on about 20,000 acres of land lying in Ash land county, Wisconsin, the purchase money amounting to more than \$500,000. The title to the land will still remain with the University. It is said that immense deposits of valuable iron ore have been discovered on this land.

MR. J. C. COOPER of Hamilton, Ont., proprietor of the Hamilton Baby Carriage and Toy Works, informs us that his trade during the past season was exceptionally good, and extending from Manitoba to the Maritime Provinces. Mr. Cooper has some eighteen years' experience in the manufacture of this line of goods, and has good facilities for their production in large quantities at low cost.

THAT "iron is king" may be demonstrated by the fact that since 1880 the iron and steel plants in the Southern States of the American Union have gained an annual capacity of 565,200 tons, with indications that at the next census the gain will reach 2,000,000 tons annually. The outlook for the iron industry in 1887 is more promising than ever before. Ten new blast furnaces are in progress of construction.

Messrs. CANTLIE, EWAN & Co., whose principal places of business are at 15 Victoria square, Montreal, and 20 Wellington street east, Toronto, are general merchants and manufacturers' agents for bleached shirtings, grey sheetings, tickings, white, grey and colored blankets, fine and medium tweeds, knitted goods, plain and fancy flannels, low tweeds, etc. They supply goods to the wholesale trade only.

The Hamilton Whip Company, Hamilton, Ont., inform us that they have recently made several large shipments of whips to London, England, where they are in good demand. This foreign trade grows out of their recent exhibit at the Colonial Exhibition in London last year. The officers of the company are:—Messrs. John H. Tilden, president; John Patterson, vice-president; and T. D. Murphy, secretary-treasurer and manager.

NOTICE of application for letters-patent of incorporation as the Canada Oatmeal Milling Company is given by Thomas Moore, of Norwich; James Muirhead, of London; Thomas Martin, of Mount Forest; E. D. Tillson, of Tilsonburg; J. D. Moore, of St. Marys; D. Spiers, of Galt; Robt. Thompson, of Woodstock; Walter Thompson, of Mitchell; and James Wilson, of Fergus; with headquarters at Toronto and a capital of \$33,000.

At a meeting recently held in Berlin of the largest and most representative German and Austrian manufacturers of enamelled iron plate goods, it was decided to form an association of all the enamelling works in Germany and Austria which should be ultimately extended into an international union. For this purpose arrangements will be made for a meeting in Paris with the French and Belgian utensil manufacturers. — *Kuhlows German Trade Review*.

Messrs. BAIN & COLVILLE, proprietors of the Beaver Engine Works, Hamilton, Ont., are making a specialty of manufacturing a steam pump for which they are enjoying a strong demand, and which is giving excellent satisfaction. Their business is fast becoming too large for their present accommodations, and they contemplate enlarging their shops. They also manufacture marine, portable and stationary engines, and do repairing and jobbing work.

The Imperial Mineral Water Company of Hamilton, Ont., of which Mr. Jas. S. Pearson is manager, are operating their works to their full capacity, manufacturing and preparing for the trade soda, potass, Seltzer, Lithia, Vichy and sparkling Vesta waters, ginger ale, lemonade, etc., all of which are prescribed and recommended by eminent medical men. These goods are prepared by a patent aerating apparatus invented by Mr. Pearson, and which is most effective in its operation.

Messrs. DAVID MORTON & SONS, proprietors of the Victor Soap Works, Hamilton, Ont., are manufacturing a varied line of fine toilet soaps, which have obtained a large popularity throughout the

Dominion, their laundry soaps being no less well known. These goods are all put up in neat and attractive packages, and when sent out are accompanied with beautiful show cards, etc. Their poster respecting their "N.P." soap contains a good likeness of Sir John A. Macdonald, the father of the "National Policy."

The Cobban Manufacturing Company, Toronto, are calling attention to the fact that Mr. Frank Phillips, of that company, a few weeks ago, while in Europe, and just before the recent extraordinary heavy advance in prices there, made large purchases and placed heavy orders with the manufacturers for fine English and German plate glass suitable for their Toronto trade. The company are now receiving weekly shipments of this glass, and are well prepared to place store fronts in any size at exceedingly low prices.

Messrs. Young & Brother, Hamilton, Ont., are extensive manufacturers of chandeliers, lamps, lamp goods, plumbers, steam fitters and bell-hangers' supplies, etc. Only a few years ago this firm, in beginning business, occupied only one comparatively small room; at this time they own and occupy a large factory, which is soon to be considerably enlarged to afford them additional floor space in their iron foundry. They also have a commodious show room on a popular thoroughfare in the city, in which they make a beautiful display of their products.

The Jubilee medals manufactured by P. W. Ellis & Co., Toronto, are deserving of the special attention of the trade, on account of their artistic beauty, and the perfection of their finish. To our mind they are the equal of any thing of the kind ever seen in Canada, and reflect the very highest credit upon the manufacturers. The large medal, especially, is really a work of surpassing merit, and in years to come, will no doubt be cherished by its possessors as an artistic souvenir of a year memorable in the annals of the British Empire. They should have a very large sale. —*Trader*.

The total capacity of the nine flour mills of Buffalo is, according to the *Courier*, 4,000 barrels a day. In 1886 only five of these were running, with a daily capacity of 2,650 barrels, and a yearly production of \$706,384 barrels. To make this 3,178,728 bushels of wheat were used, valued at \$2,860,855. In the immediate vicinity of Buffalo, at Niagara Falls, Williamsville and Lockport, mills are situated with a combined capacity of 5,275 barrels per day. The capital invested in flour mills at Buffalo is estimated at \$2,600,000, and the yearly product is valued at \$7,000,000. —*Bradstreet's*.

The Kilgour Organ Company, of Hamilton, Ont., have recently fitted up an elegant show-room for the display of their goods at 72 King street east, that city, their extensive factory being at 64 John street. In their trade catalogue they call attention to the fact that they have recently finished a complete assortment of new cases for their instruments, which are of superior style and finish. The actions of these instruments are claimed to be of superior tone, of uniform scale, and unexcelled mechanical arrangement, all of which are personally tested by Mr. J. R. Kilgour before they leave the factory.

The Westfield, Mass., whip manufacturers are anxious on the subject of getting holly wood handles without having to send to England for them. Not less than \$100,000 is yearly paid to English dealers for these handles. On this class of goods there is a duty of thirty-five per cent., while if the natural wood only was imported the duty would be little or nothing. There are no workmen in the United States who understand the art of making these handles, but there is talk among some members of the association of bringing the material in the rough and bringing over skilled workmen to turn out finished handles here.

The Osborne-Killey Manufacturing Company (limited), of Hamilton, Ont., proprietors of the Mona Iron Works, are manufacturers of steam fire engines, pumping engines, improved automatic cut-off engines, steel and iron boilers, improved furnace blowers for improving draft and economizing fuel, portable saw and grist mill engines and machinery, sower pipe presses, etc. They are iron and brass founders, in which lines they are prepared to do any sort of miscellaneous work, and they always have in stock second-hand engines and boilers of various sizes, which have been replaced by larger ones of their make.

CASKS made of corrugated and galvanized sheets are now being introduced in Germany, for the transport of liquids which are liable to expand considerably with a rise of temperature. They are lighter than wooden ones, and last much longer. The corrugations of the sheets run parallel with the hoops, which are either iron bands lined with wood or iron tubing. All joints are double rivetted and soldered, whilst two bung and spigot holes are provided with screw

plugs. They can stand an internal pressure of 30 lbs. to the square inch, and are now being used for the transport of oil, petroleum, benzine, spirits, and quite recently also for beer.

At a meeting of the shareholders of the Canada Screw Company, held in Hamilton a few days ago, the directors were authorized to move the machinery, etc., of the company from Dundas to Hamilton, and to sell or rent the building at the former place. It is expected that the new buildings in Hamilton will be ready for occupancy in November next. The main building will be 300 feet long by 75 feet wide, with a parallel building adjoining, 214 long and 45 feet wide. These buildings were designed by an Edinburgh, Scotland, architect, and will be exceedingly ornamental and convenient, and will cover some 6,000 square feet of ground.

R. E. ASTLEY, of Mount Pleasant, Pa., has invented a safety mine lamp which gives every promise of proving a success. The lamp has only about one-third the amount of gas as those now in general use; it is self-extinguishing in gas, and will also go out when placed at an angle of forty-five degrees. But its most important feature is that it needs no lock. If a miner, ignorant of the fatal consequences of exposing a naked light in the presence of gas, attempts to take off the oil vessel or lamp bottom, by a simple device, the lamp is extinguished by the operation. The same principle can be readily applied to any safety lamp now in use.

Messrs. A. R. CLARKE & Co., Toronto, who have been for many years past the largest manufacturers of fine leathers in Canada, entered into the manufacture of gloves and mitts three years ago, and have rapidly been making a name for their products all over the Dominion. Having succeeded in their father's business which was established in 1852, the three brothers who now compose the firm are all practical men, and are likely to do in the glove trade what they have done in the fine leather business—reach the top of the tree. They have already established branches in Montreal, Halifax, Winnipeg and Victoria. —*Journal of Fabrics*.

COLORADO has made discoveries of magnificent deposits of exceptionally high grade Bessemer iron ore, which, with the near-by excellent coke of the Grand River District of that State, will undoubtedly create a great steel-making industry there, for the supply of the growing markets of the west. The yield of coal in Colorado since 1873 has been nearly 7,300,000 tons. Last year it was 1,439,811 tons. The valuation of coal on the cars at \$2.35 per ton gives \$3,375,095.85. The fields yield anthracite, bituminous and lignite, and the United States Geological Survey officers are of the opinion that 100,000 square miles of territory in Colorado are underlaid by coal-bearing strata.

A NEW YORK dispatch, dated July 11th, says:—The liabilities of the Oxford Copper and Sulphur Company, of 37 Wall Street, and at Boston, Constable Hook, N.J., and Casselton, Canada, which has been placed in the hands of a receiver, are reported to be about \$600,000, with nominal assets of twice that amount. It is understood that A. M. Thompson, who is general manager of the company, has made a proposition to President Eustes to assume all the debts excepting those to Eustes and those for which Eustes is liable as endorser, and to take all the mines in Canada. It is thought that the remaining property would be sufficient to pay Eustes and leave about \$250,000 for the stockholders. It is said that Eustes has accepted the proposition.

THE value of the lumber exported by Canada from 1873 to 1886 inclusive, exceeded \$310,000,000. Of this amount the United States bought about \$110,000,000 worth, while the exports to Great Britain were valued at \$177,000,000. But the Eastern States in spite of a prohibitory revenue tax of \$2 per 1,000 feet, is gradually becoming Canada's chief market, particularly for lumber upon which labor is expended, and which, therefore is the more valuable to Canada. In years prior to 1880 Great Britain's purchase of lumber exceeded that of the United States from Canada by over \$12,000,000, while in 1885 Great Britain's purchase amounted to \$8,577,581, against \$9,355,591 by the United States. —*Canada Lumberman*.

THE stockholders of the Harte & Smith stove foundry have initiated measures to wind up the affairs of the company. Mr. J. L. Biggar has been appointed liquidator, and Mr. Wm. Hamilton, of the Merchants' Bank, Mr. C. F. Smith, and Mr. Patterson, of Patterson Bros., Hamilton, have been appointed inspectors. These gentlemen will counsel with and aid Mr. Biggar in the discharge of his duties. The creditors have agreed upon a friendly liquidation and given the liquidator every chance to make the most of the property. For the present the foundry is shut down. It was understood, from a conversation with a director, that an effort will be made to find a pur-

chaser for the property and plant; some person or company with means to operate it successfully. — *Better the Intelligence.*

Gold mining is being vigorously pushed in all the gold districts in the Province, and with most encouraging results. In Yarmouth County, the Kempt Gold Mining Company are pushing operations on a more scientific scale than before, and from all accounts the Company are likely to be richly rewarded for their determination. The Cowan Mining Company has a splendidly equipped mine, and it is reported that the property is about being sold at a good high figure. Prospecting is being vigorously pushed, and new finds are likely to be reported at any moment. The *Times* says: "They had a 'cleaning up' on Thursday, and 25 ounces of gold were obtained from one ton of quartz from the now swamp lead, or about \$500 as the product of six men's work for 8 days. — *Halifax (N.S.) Critic.*

ALTHOUGH but recently established in Canada, the Gale Sulky Harrow Company, of Detroit and Windsor, has invested a large amount of capital in completing the factory for the manufacture of their implements, which have already met with such high favor in this country. Although the money for the establishment of the works was furnished by such men as D. M. Ferry and other equally well-known American capitalists, Mr. Hall, the manager, has made the concern distinctly Canadian, as with one exception every employe is a Canadian, and every dollar spent for material is the product of Canadian manufacture. The establishment of such a wealthy institution in the Province is only one of the many beneficial results of the National Policy, of which Mr. Hall, the general manager, is an ardent supporter. — *Chatham (Ont.) Planet.*

MR. W. GEISS of Hamilton, Ont., is filling a contract for a large number of the De Laval cream separator for Mr. Frank Wilson of Montreal, general manager of the De Laval Cream Separator Company of Canada. It is claimed for this machine that by its use two hundred dollars a year are gained for every twenty-five cows, over other machines; that it increases the yield of cream from ten to thirty per cent; cleanses the milk of impurities, foul odors and disagreeable tastes; maintains a uniformity in both cream and butter; effects great saving in time, labor and expense, and that the cream can be separated from the milk as soon as it comes from the cow. Mr. Geiss has a commodious machine shop fully equipped with as fine and effective tools as are made, and the perfection of operation of these separators attests his skill in manipulating them.

THE secretary of the Troy Lake Mining Company, Chicago, reports that work on the Company's property, near Kingston, Ont., is progressing favorably. Recent information, in the shape of official letters from the manager to the home office in Chicago, show that a vein of clean ore 130 feet in width has been uncovered, with only the foot wall visible, no signs of the hanging wall appearing. Parties interested in the Gogebic and Vermillion ranges, who have recently visited this property, describe it as "the most wonderful deposit of iron they have ever seen." It is rumored that a large bed of phosphates has been discovered on the west end of the company's land, and investigations are now going forward to determine the extent of what appears to be a very valuable discovery. This species of mineral readily sells for \$24 per ton in the crude form. — *Chicago Industrial World.*

THE charter of \$5,000,000 to the Dominion Oil Pipe Line and Manufacturing Company, of which T. G. Hall, Judge Laird, G. D. Lane, A. R. Wilbur and F. C. Mills are the promoters, passed the Ottawa Senate on Wednesday without change, and thus becomes a dead certainty. It is one of the largest charters ever granted in the country for such purposes and means business. Quite a number of prominent parties from the States and Canada have been here within the last ten days looking over the plant of the Alpha Company, and more particularly seeing the liquid fuel of the company, its gas, etc. A great many say that it is but a question of a short time when the liquid fuel will be introduced into manufacturing concerns on a large scale, and that the gas will revolutionize the lighting problem. The exchange building is lighted with gas right along and gives a clear, brilliant light, at such a low cost that it astonishes every visitor who sees it. — *Sarnia Sun.*

It is proposed to save a waste that, at present, allows a good income to foreign manufacturers. It is estimated that millions of pounds of wool grease are wasted annually in the United States, which could be saved and used instead of the English and French degrass grease, so liberally imported for tanners' use. It is said that the viscous, absolutely non-drying oil or grease, was being poured into the rivers of the New England and Middle States to the extent of 40,000,000 pounds a year. The woolen manufacturers are polluting the streams with it, but it is expected that loud protests will

soon be entered against the practice, and then "necessity, the mother of invention," will devise some means of converting it to commercial uses. It has been proposed to treat wool with naphtha, from which the grease can be recovered and purified. The ordinary method of scouring wool is by the use of alkalies, and the European degrass is recovered and treated by very cheap labor, hence the low price at which it can be sold in this country. — *Philadelphia Industrial Review.*

SOME experiments I made about eight years ago to test this point may be of interest. I placed shingles in a sash and door factory where a sandpaper machine was working. In a very short time they were coated with dust to the depth of an inch. This dust was so wet that when squeezed in the hand, water would run out. I then carried the shingle to my office, where a bright fire was burning, and used a small hand bellows to blow the dust off the shingle so as to come in direct contact with the flame, and the result was an undoubted explosion, of such a force as sufficed to blow the mica lights out of their places in the stove. The result of the few tests I made demonstrated this fact, that if a flame is brought into contact with finely disseminated dust, such as is found in flour mills, sash and door factories, and other works of like nature, an explosion will take place of such violence that no building could withstand it. The factory wherein my experiments were conducted, immediately adopted blowers and exhaust fans for the entire removal of all the dust from the building, and this is the only safe way of dealing with this problem. — *Scientific American.*

MESSRS. R. M. WANZER & Co., Hamilton, Ont., inform us that they have bought the patent right to manufacture and sell in Canada and Great Britain the Backus portable open reflecting fire place steam heater, intended for residences, offices, etc. It is claimed for this heater that its use is cheaper than coal, wood, or steam boiler heating. It is elegant in design and finish, and an ornament in any apartment. It occupies a floor space of only 14 by 26 inches, and it is 34 inches in height. When placed against the wall it has the appearance of an open coal fire grate. It possesses great heating capacity, both from reflected heat and steam, which is generated by water passing through coiled pipes above the burners, and back into the radiator at the top, having nearly a thousand square inches of heating surface. When at its full heating capacity the heater using coal oil consumes but one gallon of oil each ten hours, and the gas burner but 18 feet of gas per hour, generating about 50 pounds of steam in 40 minutes, and affording as much heat as can be obtained from a 40-pipe radiator or an open coal fire grate. These heaters are always ready for service, safe and reliable, require but little care, produce no smoke or ashes, and are unique and economical in their operation.

REPORTS have been made public here of late of the severe depressions in the flour milling industry in the United Kingdom, owing to the extent of competition from American flour. No fewer than sixteen English millers "went out of business" a few weeks ago, because unable to compete with those of the United States. At a late meeting of the London Millers' Association, held "to consider the question of the desirability of a duty being imposed upon imported flour, it was decided that, owing to the great depression in our manufacturing trade, caused chiefly by the large importations of foreign flours, which have been the means of closing several mills and others only working half-time, it is resolved that the National Association of British and Irish Millers should be asked to institute an inquiry into the cause of the depression in the milling trade and consider whether it would be advisable to ask for a moderate duty to be imposed on imported flour, "with but one negative vote. The depressed state of the milling trade of Scotland formed the subject of consideration at a representative meeting of millers held recently at Glasgow. The opinion held, says the *Glasgow Herald*, favored the adoption of such fiscal measures as will save the industry from the utter destruction that threatens it from the severe, and what is characterized as the unfair, competition offered by America." It was decided that steps should be taken to ventilate the subject, and a committee was appointed to confer with operatives and concert some plan for bringing the position of affairs before the public.

MINING coal by the aid of natural gas is one of the curiosities of the industrial hive of which Pittsburgh is the center. The Cincinnati mine, on the Monongahela River, run by Jordan Neel, is ventilated by a large and costly shaft, the base of which has the dimensions of an ordinary-sized room. To make the draft strong enough to ventilate the mine thoroughly, it was necessary to keep a fire burning at the base. That used up a good deal of coal in the course of a year, and the labor of attending to it and removing the ashes made an item in the expence of running the mine. The superinten-

dent, aware of a considerable flow of natural gas in the mine, determined to make use of it instead of coal as fuel for the shaft. One who goes to the base of it now will see three or four pipes sunk in the coal and leading to the shaft. They collect the gas and carry it to the points of combustion. Around the pipes where they are sunk in the coal oakum is packed and through it also the gas rises. Run a lighted match above the oakum and the gas will ignite. One standing there and looking at it will feel himself at the headquarters of the natural-gas supply. He will imagine himself standing where nature is manufacturing the gas, in the bed of coal. But the expert will show him his mistake. There is a clay vein in the mine and in the crevices of that the gas comes up from the unknown depths and spreads all through the bed of coal, or wherever it can find a crevice in the bed through which to travel. Stick a pipe almost anywhere and the gas will accumulate in it. The supply is constant and the ventilation secured is perfect. Light the gas and it burns straight along, maintaining a steady and strong draft. The question arises as to whether it is not dangerous to have a fire burning in the mine in that way, but it has been found not to be any more dangerous than the fire from coal. The draft is so strong that the gases have no chance to accumulate. They are carried up the shaft and wasted on the upper air as fast as they appear.—*Pittsburgh (Pa.) Gazette.*

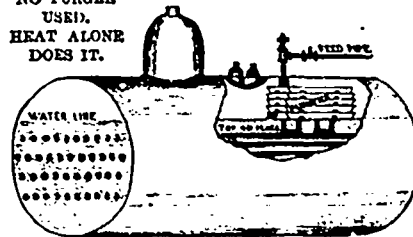
The most important contract let in the North-western country for some time was taken last week by W. D. Gray, milling engineer for E. P. Allis & Co., Milwaukee. It was for the erection of a 1,200 bbl. mill at Rat Portage, Manitoba, the builders being prominently identified with the Canadian Pacific Railroad, and carrying out the project under the style of the Lake of the Woods Milling Company. The mill and its adjuncts are to be of the most substantial and complete character, and will cost over \$200,000. The mill building will occupy a ground space of 10½x110 feet and will be constructed wholly of granite, a large amount of this stone being quarried from the race-way. The mill proper, 50x110 feet, will be six stories high, exclusive of basement. The remaining 50 feet frontage will be three stories and basement in height, and designed for the packing department and warehouse. Contiguous will be a building 30x50 feet, to contain two 60-inch water wheels, working under a 24 foot head, and leaving ample room for two more wheels in case the company should at any time in the future desire to build another mill adjoining, as is thought possible. With the exception of cleaners and packers, which are to be of Canadian manufacture, the machinery is to be of Allis' make. Included in the list will be 50 double sets of Gray 9x24 and 9x30 rolls, Gray scalpers, round reels and a few Morse bolts. Seven reductions on wheat are to be made. About 200 feet distant from the main building is to be erected a 125,000 bushel elevator, the wheat being conveyed to the mill by means of a belt wheat carrier. A race-way 30 feet wide and to have 10 feet of water will be cut through the solid granite at a cost alone of \$24,000. In this manner the Lake of the Woods is secured as a natural and inexhaustible reservoir for water, the race emptying into the Winnipeg River. Allis & Co. have the contract for doing the entire work, and will receive \$120,000, exclusive of the mill and elevator buildings and construction of the race. Work will be begun immediately on the mill house, and the intention is to have the millwright work done during the coming winter, completing the entire plant by spring. Mr. Gray will give his personal attention to the job, intending to make the mill the equal if not the superior of any ever put up, and in attaining this end will not lack for money. The matter as to who will be head miller for the company is not fully settled. It is understood that the main object of the enterprise is to mill Manitoba wheat in transit, and that it is probably but the first of several mills that will be erected. Montreal, where Ogilvie & Co. have just completed a new mill, is mentioned as the location most likely to be chosen by the new company for another mill. As to who compose the Lake of the Woods Milling Co., the *Miller* has been unable to hear, further than that Alex. Mitchell is president and John Mather vice-president, both of Montreal, and the stockholders are among the wealthiest citizens of Canada.—*North-Western Miller.*

"The basis of all wealth is population that can create, and, by its creation live; consequently the greatest good to the greatest number is the foundation and root of all good and profitable government. If the importer can give the largest amount of employment to the greatest number of people and so give the largest and most profitable market to producers (and by producers I mean all except traders and professional people,) then Commercial Union is what we want. If, on the other hand, the producers contribute the greatest good to the greatest number, i.e., give profitable employment to the greatest number and so enable earners to pay for what they require, then certainly we do not want Commercial Union.

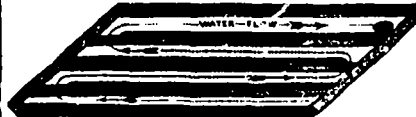
"To the thinking earner argument is not necessary, for Commercial Union condemns itself. Three times the thinking earner of Canada has decided that he did not want Commercial Union, for practically under present conditions, Free Trade and Commercial Union are convertible terms with this advantage to Free Trade, that it does not ultimately nor necessarily mean annexation with the United States."

PATENT BOILER WATER PURIFIER.

NO PURGER USED. HEAT ALONE DOES IT.



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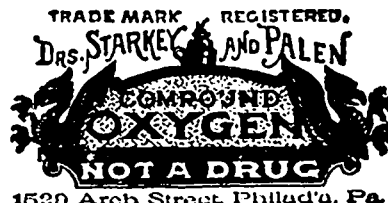
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THIS PURIFIER ENTIRELY PREVENTS THE FORMATION OF SCALE UPON SHELL AND FLUES OF ANY BOILER IN WHICH IT IS USED. ALL IMPURITIES ARE EXTRACTED FROM THE WATER BEFORE IT REACHES THE WATER LINE, AND ARE DEPOSITED IN THE PANS OF THE PURIFIER.

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Correspondence

We are in receipt of the following letter on Commercial Union from Mr. E. L. Fenerty, of the Halifax Manufacturing Company, manufacturers of Fenerty's Patent socket shovel, Halifax, N.S.

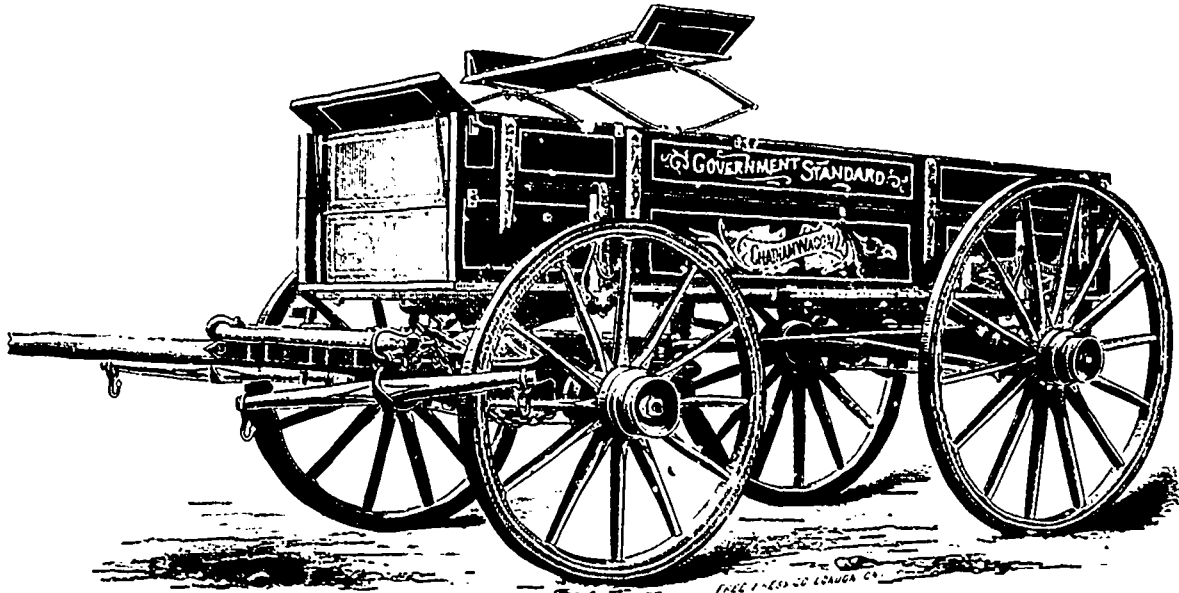
(To the Editor of the CANADIAN MANUFACTURER.)

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Department of Indian Affairs,
Ottawa, 2nd June, 1887.

L. VANKOUGHNET,
Deputy of the Supt. General of Indian Affairs.

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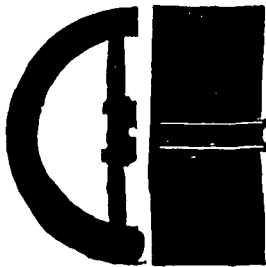
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Gentlemen: You ask why we use the Dodge Patent Pulley. I answer because we consider them the cheapest, most convenient and satisfactory in all particulars.
Yours truly, S. R. STIMSON, General Manager.

OFFICE OF NEWTON WAGON CO., }
BATAVIA, ILL., Feb. 17, 1885. }
C. L. RICE, AGENT, CHICAGO, ILL. }
Dear Sir: Replying to your favor, will say that after using the Dodge Wood Split Pulley for a year or more we are satisfied they are a good thing, if not the best Pulley made, and shall use them hereafter in preference to any other we know of.
Yours truly, NEWTON WAGON CO.

We have sold these pulleys for one year, and they have been put to every kind of service, and their popularity is wonderful. We refer to the following users for proof of the above statements: Pillsbury & Hulbert Elevator Co., Minneapolis; R. M. Pratt & Co., Elevators; Northern Pacific Elevator Co.; The Pacific Elevator Co.; Minneapolis Harvester Works; Minneapolis School Furniture Co.; M. & St. L. R. R. Co.; Willford & Northway; Washburn, Crosby & Co.; St. Paul Electric Light Co.; St. Paul Roller Mill Co.; Minneapolis Brick Co.; N. W. Mfg. & Car Co., Stillwater, Minn., and very many others.
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CENTENNIAL EXPOSITION, }
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W. H. DODGE, PRES. }
DODGE MFG. CO., MISHAWAKA, IND. }
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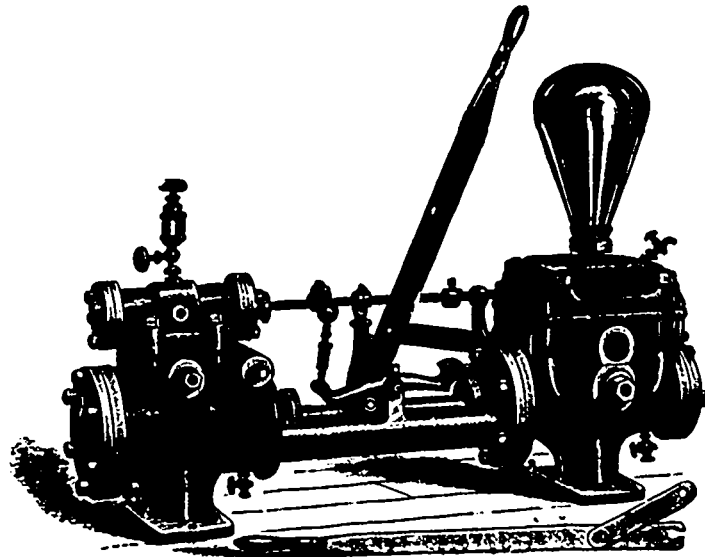
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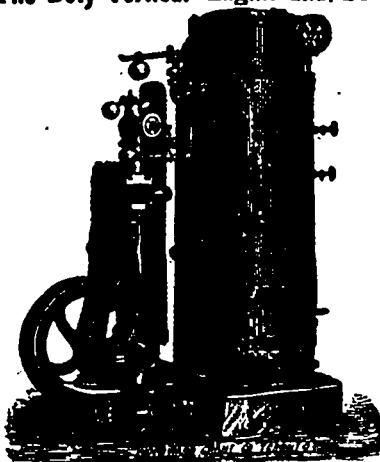
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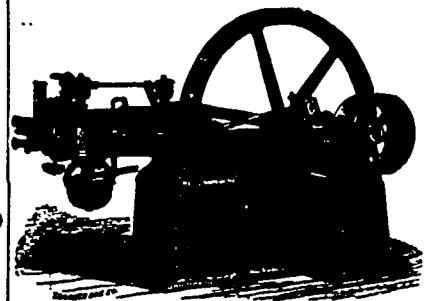
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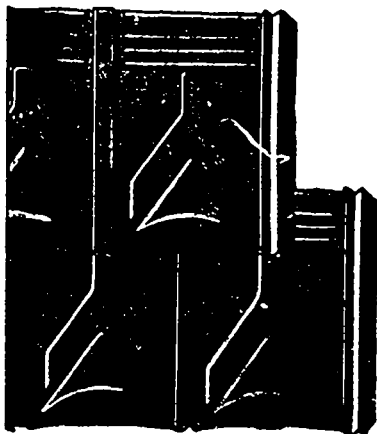
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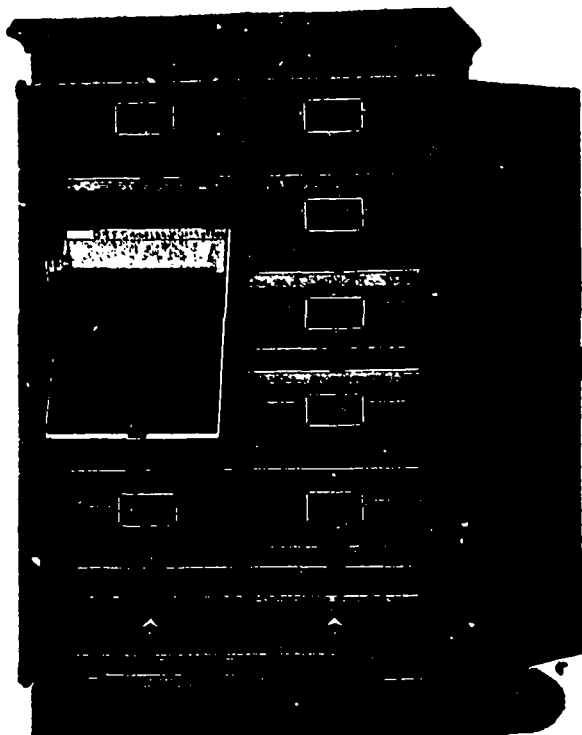
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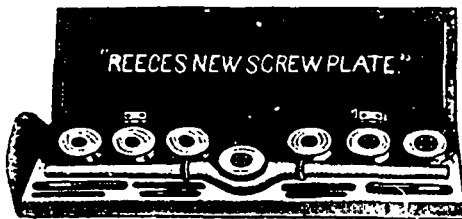
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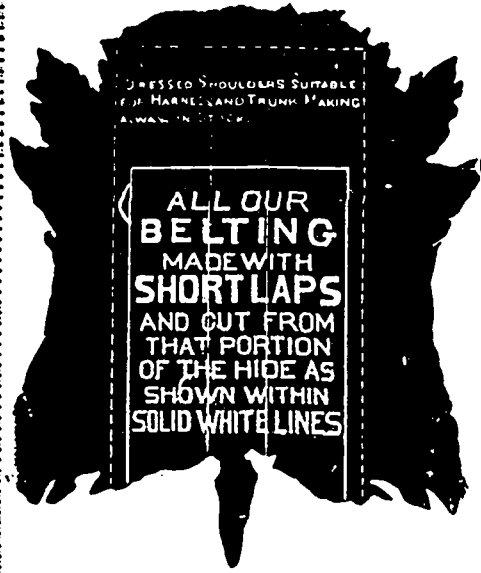
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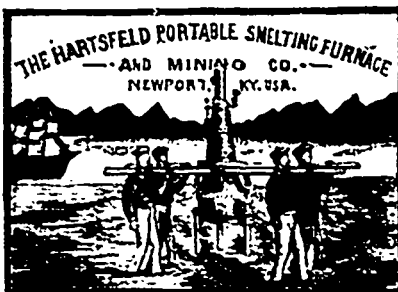
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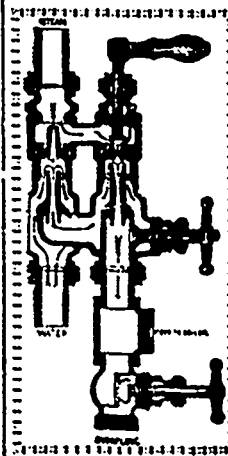
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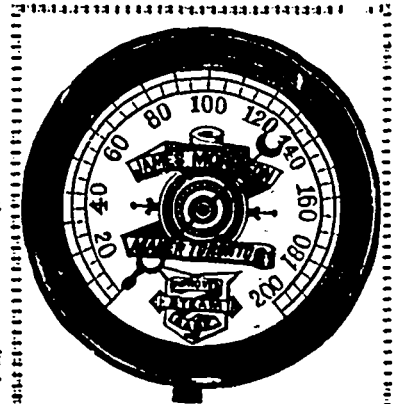
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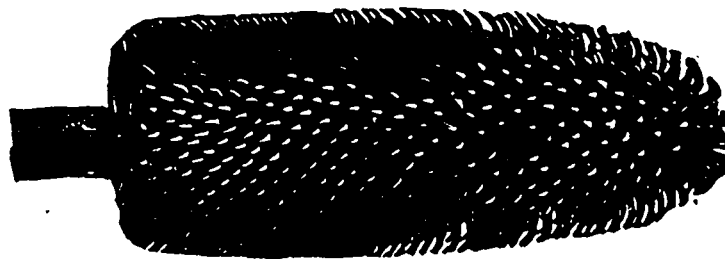
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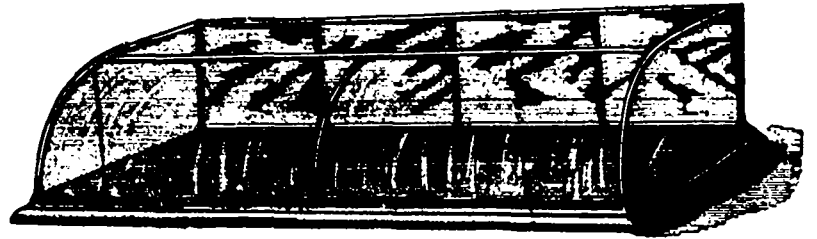
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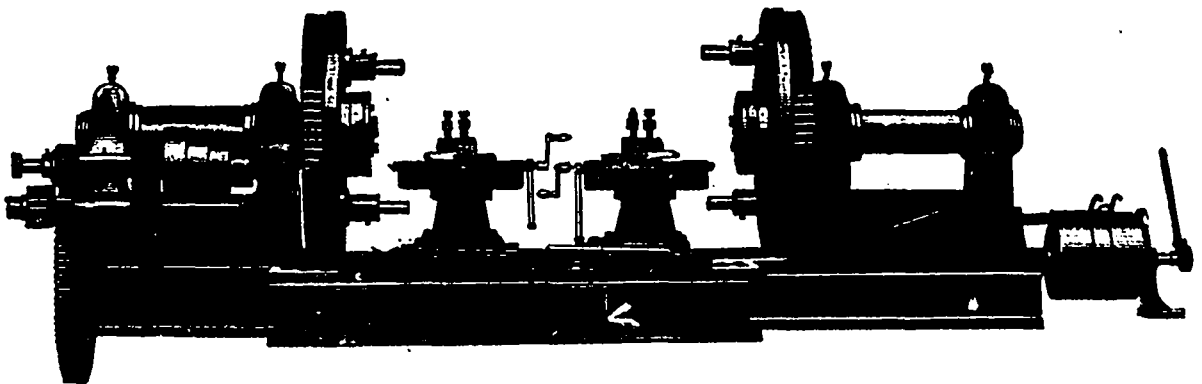
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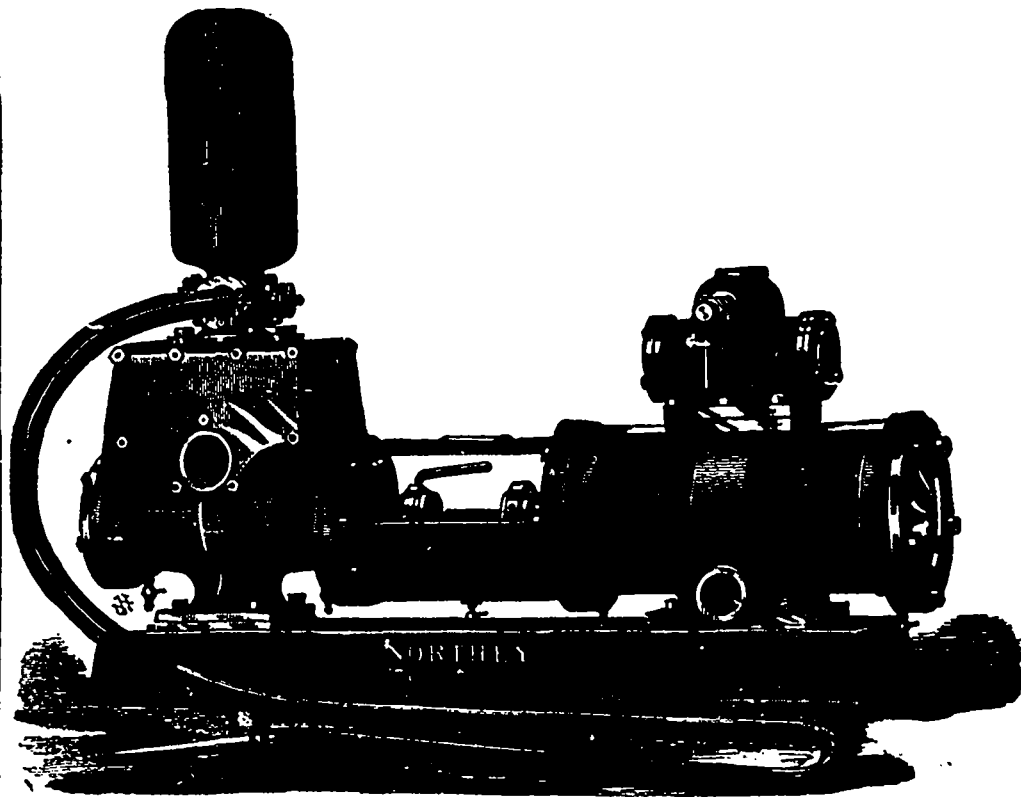
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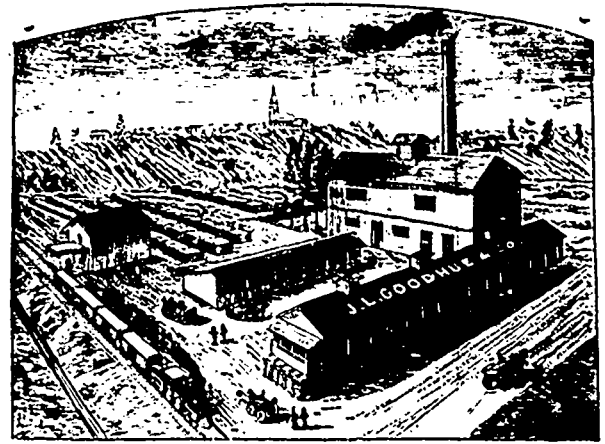
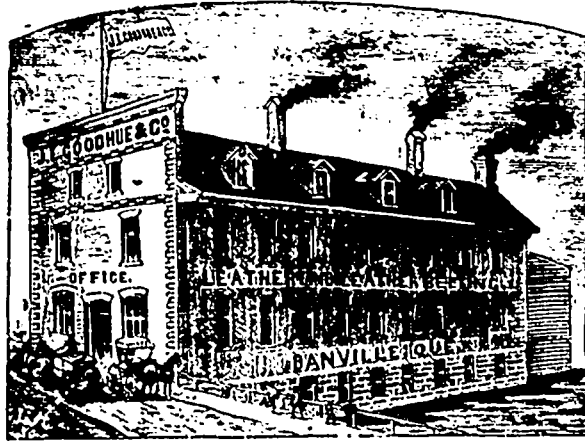
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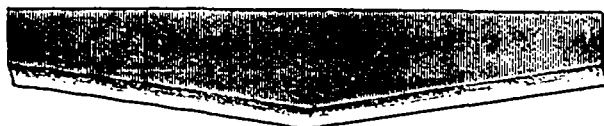
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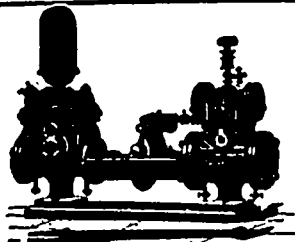
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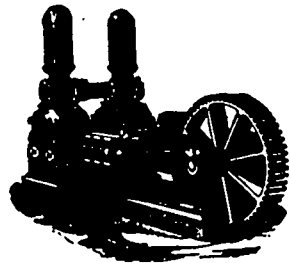
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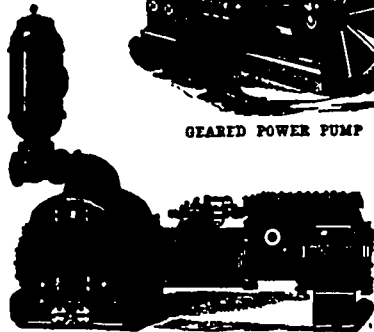
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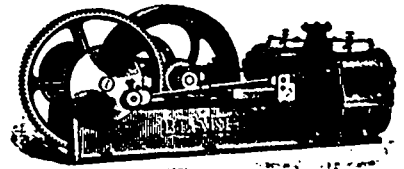
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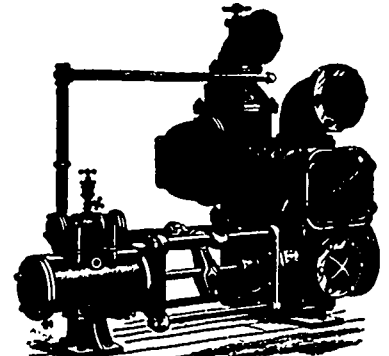
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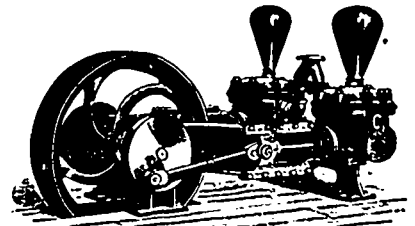
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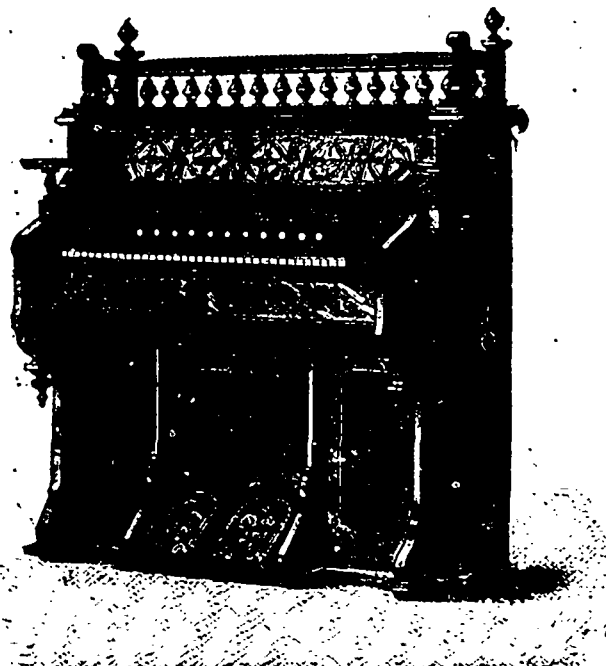


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A. S. WHITING MANUFACTURING CO., Cedar Dale, Ont.—Manufacturers of scythes, forks, hoes, etc.

WELLAND VALE MANUFACTURING CO.—Lock No. 2, St. Catharines, Ont., Canada—Manufacturers of axes, scythes, forks, hoes, rakes and edge tools.

Bobbins and Spools

THOMPSON & CO., Sherbrooke, P. Q.—Manufacturers of all kinds of Bobbins and Spools for Cotton and Woolen Mills—Special patterns made to order from sample.

Bridge Builders.

DOMINION BRIDGE CO. (Limited),—Shops at Toronto, Ontario, and Lachine, Quebec. Builders of Steel and Iron Railway and Highway Bridges.

Chemicals.

DOMINION DYEWOOD AND CHEMICAL CO., Toronto.—Importers and Manufacturers. Chemicals for Cotton, Woollen, Paper and Leather Manufacturers.

MARTHUR, CORNEILLE & CO. (successors to John McArthur & Son), Montreal.—Offer at closest figures chemicals required by soap-boilers, oil refiners, paper-makers, and by manufacturers of woollens, cottons, leather, &c.

Cotton Mills.

HAMILTON COTTON MILLS CO., Hamilton.—Denims, tickings and yarns.

Dyes, Dyeing Drugs and Extracts.

THEO. H. EATON & SON, Windsor, Ont.; Detroit, U. S. A.—Carry full line of Pure Dyeing Drugs, Dye Woods and Extracts adapted for the requirements of Woollen and Cotton Manufacturers. **Paper Makers' Anilines** and Chemicals. Address the Detroit Office.

Dye Stuffs.

MARTHUR, CORNEILLE & CO. (successors to John McArthur & Son), Montreal.—Supply of best quality at closest prices. Every description of coloring materials required by manufacturers of woollens, cottons, silks, paper, leather, &c. Are sole agents in Canada for the celebrated aniline dyes of A. Perrier, Paris.

LYMAN BROTHERS & CO., Nos. 71 and 73 Front Street East, Toronto.—Dye Stuffs of all kinds for Woollen and Cotton Manufacturers; Warps, Shuttles, Bobbins, Card Clothing, etc., etc.

Dyewood and Dye Stuffs, Aniline Dyes.

DOMINION DYEWOOD AND CHEMICAL CO., Manufacturers.—Pure Dyewoods, Dyeing Drugs. Sole Agents. English, German, and French Aniline Dyes, for Woollen, Silk Paper, and Leather manufactures.

Edge Tools.

WELLAND VALE MANUFACTURING CO.—Lock No. 2, St. Catharines, Ontario, Canada.—Manufacturers of axes, scythes, forks, hoes, rakes and edge tools.

Emery Wheels.

HART EMERY WHEEL CO., Hamilton.—Manufacturers of every description of Emery Wheels and Emery Wheel machinery.

Gas Engines.

JOHN DOTY, Toronto.—Manufacturer in Canada of the new "Otto" silent gas engine, two, four, and seven horse-power and larger.

Glove Manufacturers.

W. H. STOREY & SON, Acton, Ont.—Manufacturers of fine gloves and mitts in every variety and style.

Hoist and Elevator Manufacturers.

LEITCH & TURNBULL, Canada Elevator Works, cor. Queen and Peter Streets, Hamilton, Ont.—Patent Safety Hydraulic, Hand, and Power Elevators. Telephone connection.

Hubs, Spokes and Bent Goods.

F. W. HORE & SON, Hamilton, Ont.—Manufacturers of wheels, wheel material, shafts, poles, etc.

COWAN & CO., Galt.—Manufacturers of every description of wood working machinery.

H. R. IVES & CO., Montreal.—Hardware manufacturers and founders; iron railing and ornamental iron work a specialty.

JOHN BERTRAM & SONS, Dundas.—Machine tools and wood working machinery. Toronto wareroom, 58 Yonge St. Agents—The Polson Iron Works Co. Montreal wareroom, Craig St. Agents for Quebec—The Machinery Supply Association, Montreal.

THE OSHAWA MALLEABLE IRON CO., Oshawa, Ont.—Manufacturers of malleable iron castings, to order, for all kinds of Agricultural Implements and miscellaneous purposes.

SMITH'S FALLS MALLEABLE IRON WORKS, Smith's Falls, Ont.—Manufacturers to order of refined malleable iron castings from air furnace. Agricultural and other heavy castings a specialty. Carriage castings in stock.

Engines and Boilers.

JOHN DOTY, Toronto.—Engines and boilers of every description and capacity, also shafting, pulleys, and hangers for factories.

Knife Works.

THE WHITMAN & BARNES MANUFACTURING CO., St. Catharines, Ont.—Manufacturers of mowing and reaping machine knives, sections, guard plates, cutting apparatus complete, spring keys and cutters, etc.

Knitting Mills.

S. LENNARD & SONS, Dundas.—Manufacturers of plain and fancy hosiery.

Manufacturers' Supplies.

E. JENCKES MANUFACTURING CO., Pawtucket, R. I.—Sole manufacturers of Hicks Improved U. S. Standard Ring Travellers. Belt hooks, gimlet pointed wire goods, spinning rings, cotton banding, twine, &c. Manufacturers' supplies. Leather belting and lace leather. Special agents for Jos. Noone's sons cloths.

Oils.

MARTHUR, CORNEILLE & Co (successors to John McArthur & Son), Montreal.—Afford best value in pure olive and lard oils, also in all other leading lines of vegetable, animal, and mineral oils for factory use. Invite special attention to their celebrated crown diamond "engine" and "machinery" oils.

Paper Manufacturers.

WM. BARBER & BROS., Georgetown—Manufacturer of book and fine papers.

Saw Manufacturers.

R. H. SMITH & CO., St. Catharines.—Manufacturers of all kinds of saws, plastering trowels, straw knives, etc. Sole manufacturers for the Dominion of Canada of the celebrated "Simond's Saw."

Scythe Snaths.

THE DOMINION SNATH COMPANY, Sherbrooke, Que.—Manufacturers of Patent Swing Socket, and every variety of Scythe snath.

Tanners' and Wool Pullers' Supplies.

THEO. H. EATON & SON, Windsor, Ont.; Detroit, U.S.A.—Supply at lowest prices all Chemicals used by Tanners and Wool Pullers. Special Anilines for Sheep Skin Dyers, Wool Mat Manufacturers, etc., etc. Address correspondence to Head Office, Detroit, Mich.

Taps and Dies.

BUTTERFIELD & CO., Rock Island, P.Q.—Manufacturers of Taps, Dies, and all Screw Cutting Tools.—Telegraph Office, Derby Line, Vt.

Wire Works.

B. GREENING & CO., Hamilton, Ont.—Manufacturers of wire ropes, cloth and general wire workers.

TIMOTHY GREENING & SONS, Dundas, Ont.—Manufacturers of the strongest description of steel wire cloth, malt kiln floors and general wire weavers. Telephone connection.

TO ADVERTISERS!

For a check for \$20 we will print a ten-line advertisement in One Million issues of leading American Newspapers and complete the work within ten days. This is at the rate of only one fifth of a cent a line, for 1,000 Circulation! The advertisement will appear in but a single issue of any paper, and consequently will be placed before One Million different newspaper purchasers—OR FIVE MILLION READERS, if it is true, as is sometimes stated, that every newspaper is looked at by five persons on an average. Ten lines will accommodate about 75 words. Address with copy of Adv. and check, or send 30 cents for Book of 272 pages. **GEO. P. ROWELL & CO.**, 10 SPRUCE ST., NEW YORK.

We have just issued a new edition (the 16th) of our Book called "Newspaper Advertising." It has 272 pages and among its contents may be named the following Lists and Catalogues of Newspapers—

DAILY NEWSPAPERS IN NEW YORK CITY, with their Advertising Rates.

DAILY NEWSPAPERS IN CITIES HAVING more than 150,000 population, omitting all but the best.

DAILY NEWSPAPERS IN CITIES HAVING more than 200,000 population, omitting all but the best.

A SMALL LIST OF NEWSPAPERS in which to advertise every section of the country; being a choice selection made up with great care, guided by long experience.

ONE NEWSPAPER IN A STATE. The best one for an advertiser to use if he will not buy one.

BARGAINS IN ADVERTISING IN DAILY Newspapers in many principal cities and towns, a List which offers peculiar inducements to some advertisers.

LARGEST CIRCULATIONS. A complete list of all American papers issuing regularly more than 25,000 copies.

THE BEST LIST OF LOCAL NEWSPAPERS, covering towns of over 5,000 population and every important county seat.

SELECT LIST OF LOCAL NEWSPAPERS, in which advertisements are inserted at half price.

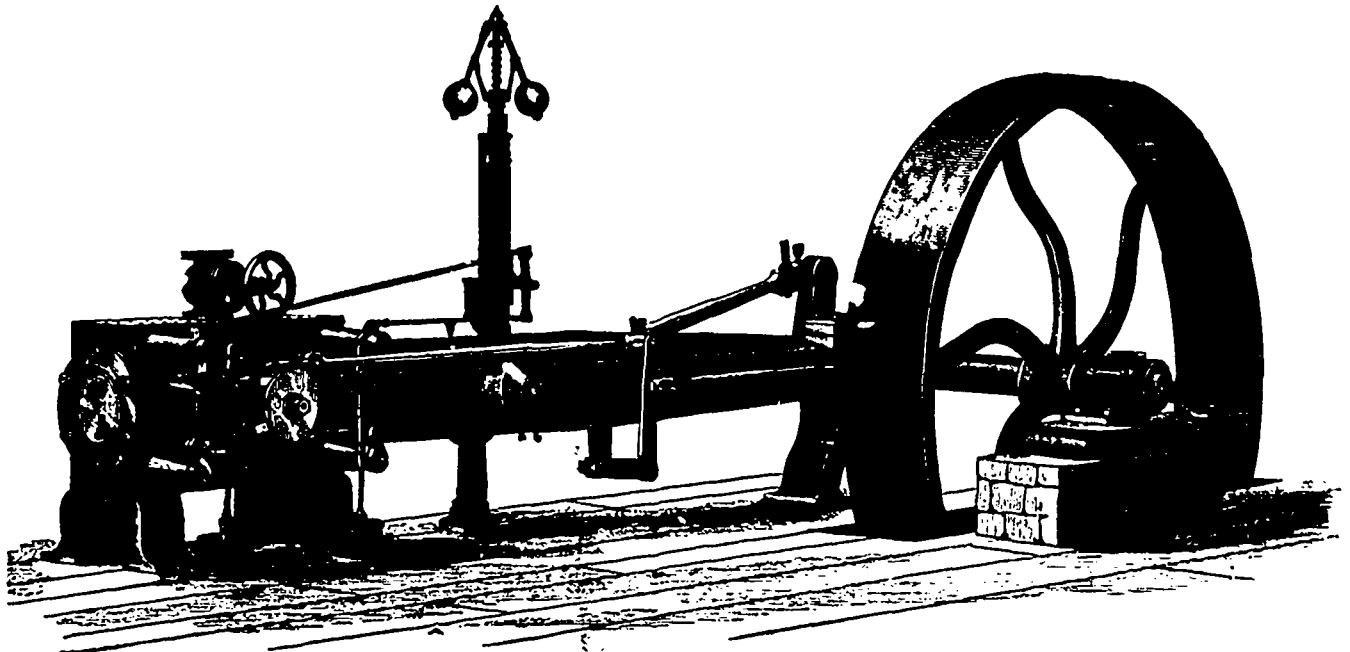
SALE WILLAGE NEWSPAPERS in which advertisements are inserted for \$41.40 a line and appear in the whole lot—*one-half* of all the American Weeklies.

Sent to any address for **THIRTY CENTS.**



THE GALT FOUNDRY,

Engine and Machine Works.



THE HARRIS-CORLISS STEAM ENGINE

Is the most perfect Out-off Engine made. For Economy of Fuel, Regulating of Speed, Accessibility of all its Parts, it has many Imitators, but no Equals, and is Unsurpassed.

While many Engines of the same class have been invented, built, tried and abandoned, the Harris-Corliss has steadily gained in public favor, and is now

Without a Successful Rival.

PLEASE NOTICE SOME OF THE ADVANTAGES OF THE HARRIS-CORLISS ENGINE:

1st—The Steam is admitted at Boiler pressure to the piston by the main valve and is cut off at the same point, the load determining through the regulator, when the supply of steam shall be cut off. This is the only Engine that thus admits steam at full boiler pressure.

2nd—The success of the Harris-Corliss Engine lies in the simplicity and precise action of the governing elements, the Governor is an independent mechanism, with no extraneous load, and free to instantly respond to all variations in the angular velocity of rotating parts.

3rd—No parts of the regulating medium enter the steam chest and thereby be out of sight of the engineer, and subject to the corrosive action of steam and the oil used for lubricating the valves and piston.

4th—Regularity of Speed under varying loads of steam pressure.

5th—Recessed Valve Seats which avoid the liability of wearing shoulders on them.

6th—Stop Motion on Regulator of Engine which effectually stops the Engine whenever the regulator by any means fails to perform its work, thus preventing the Engine from running away.

7th—Having four Valves either can be adjusted independently of the other with the greatest ease.

8th—The increased amount of power it develops.

We would draw special attention to our new and improved Adjustable Pillow Block, which is pronounced by all practical men who have seen it to be the very best in Canada.

COWAN & CO.,
Galt, Ont., Canada.

Manufacturers of Engines, Boilers and Wood-Working Machinery—all kinds, new Patterns, highly finished.

THE Dartmouth Ropework Co.

HALIFAX, NOVA SCOTIA.

MANUFACTURERS OF

MANILLA, SISAL AND
TARRED RUSSIAN CORDAGE,
MARLINE, HOUSELINE,
HAMBROLINE, SPUN YARN AND OAKUM.

SPECIAL ATTENTION GIVEN TO

Binder Twine.

BEAVER LINE.

The Canada Shipping Co.'s Line of Steamers,

BETWEEN
MONTREAL AND LIVERPOOL.

Comprising the following First Class Clyde-built, Full-powered Iron Steamships:

	Tons
LAKE ONTARIO, Capt. Wm. Bernson	5,300
LAKE SUPERIOR, Capt. Wm. Stewart	5,000
LAKE HURON, Capt. H. Campbell	4,100
LAKE WINNIPEG, Capt. M. L. Traumar	3,300
LAKE NEPIGON, Capt. P. D. Murray	2,300

SUMMER SAILINGS, 1887, WILL BE AS FOLLOWS:

FROM LIVERPOOL:		
Lake Superior	Friday, June 3	10
Lake Ontario (new)	" " 17	24
Lake Nipigon	" " 24	1
*Thanemore	" " 8	16
Lake Winnipeg	" " 1	
Lake Superior	" " 8	
Lake Ontario	" " 16	

FROM MONTREAL:		
Lake Winnipeg	Wednesday, June 15	21
Lake Superior	Tuesday, " 23	5
Lake Ontario (new)	" " 23	12
Lake Nipigon	" " 5	19
*Thanemore	" " 12	26
Lake Winnipeg	" " 19	8
Lake Superior	" " 26	
Lake Ontario	" " Aug. 2	

*SS. Thanemore does not carry passengers.

The steamers connect at Montreal by direct rail for all points in Canada, Manitoba, North-West Territories and United States, to which through tickets are issued.

These steamers are built in water-tight compartments, and of special strength for the North Atlantic trade.

In the passenger departments the most perfect provision has been made to ensure the comfort and convenience of all. In the Cabin the State-rooms are large and airy. The Steerage is fitted with the most approved Patent Canvas Berths, and is fully ventilated and heated by steam.

An experienced Surgeon is carried by each steamer, also Stewardesses to attend to the wants of females and children.

RATES OF PASSAGE:

Montreal to Liverpool Saloon, \$40, \$50 and \$60. Round Trip Tickets, \$80, \$90 and \$110, according to steamers. Intermediate, \$30, Steerage, \$20.

For Freight and other particulars, apply in Belfast, to A. A. WATT, 3 Custom House Square, in Queenstown, to N. G. SKYMER & Co., in Liverpool, to R. W. ROBERTS, 21 Water St.; in Quebec, to H. H. SKWELL, 125 Peter St.

H. E. MURRAY,
General Manager,
1 Custom House Square, Montreal.

HAMILTON COTTON COMPANY

MANUFACTURERS OF

THE STAR BRAND

COTTONADES, DENIMS, TICKINGS.

Star Brand—BEAM WARP.

" HOSIERY YARN.

" BUNDLE YARN.

" CARPET WARP.

" BALLED KNITTING YARN.

First Prize, Silver Medals, for Beam Warps and Denims, Toronto, 1881.

General Agents,—

F. McELDERY & CO.,

204 MCGILL STREET, MONTREAL.

22 & 24 COLBORNE ST., TORONTO.

ONTARIO BOLT CO., TORONTO,

MANUFACTURE

Thrashing Machine Teeth,
Machine Bolts,

Bolt Ends and Blank Bolts,

Bridge Rods and Bridge Rivets,

Coach Screws and Skein Bolts,

The Superb Carriage Bolt,

The Prize Carriage Bolt,

The Eclipse Carriage Bolt,

The Prize Tire Bolt,

The Eclipse Sleigh Shoe Bolt,

The Prize Plough Bolt,

Best Whiffletree Bolts,

Best Shaft and Step Bolts,

Best Eccentric Head Spring Bolts,

Best Elevator Bolts,

Best Norway Shackle Bolts,

Best Railway Track Bolts,

Black Iron Rivets,

Boiler Rivets,

Railway Spikes,

Pressed Spikes,

Hot Pressed Nuts,

Bridge Bolts and Rag Bolts.

PLATE GLASS

136 Cases 1-4 inch O. G. Stock Sizes.
97 " " " Silvering Quality.

We beg to advise having made very large purchases of PLATE GLASS before the recent extraordinary ADVANCE in prices.

Our Mr. PHILLIPS was fortunate enough to arrive in Europe and place large orders one week previous to the formation of the EUROPEAN MANUFACTURERS' COMBINATION.

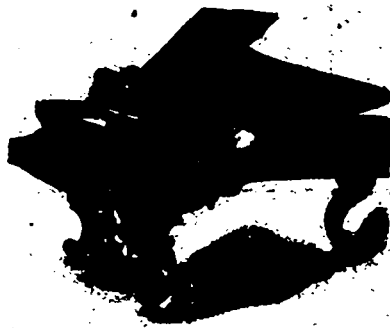
We are now receiving weekly shipments, and are well prepared to place SHOP FRONTS in any size at a slight advance ON COST.

Send Sizes and Get Quotations.

COBBAN MANUFACTURING CO.
TORONTO.

HEINTZMAN & CO.

MANUFACTURERS OF



GRAND,
SQUARE,
AND UPRIGHT
PIANOFORTES.

SEND FOR ILLUSTRATED CATALOGUE.

Warerooms, 117 King St. West,
TORONTO.

MACHINERY.

Steam Engines,
Steam Boilers,
Pumping Machinery.
Lathes, Planers,
Drilling Machines.
Machinists' Tools and Supplies.
Shafting, Hangers, Pulleys.

Machinery Supply Association,
COR. BLEURY & GRAIG STS.
MONTREAL.



HART
Emery Wheel
COMPANY
(LIMITED),
Hamilton, Canada.

MANUFACTURERS OF
EMERY WHEELS

FOR
FOUNDRIES, MACHINE SHOPS,
SAW MILLS, & PLANING MILLS.
SEND FOR CIRCULAR.

Also
MANUFACTURERS
OF—

**EMERY WHEEL
MACHINERY.**



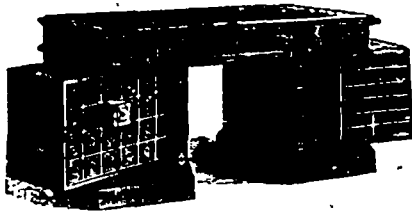
Illustrated Price List sent on Application.

W. STAHLSCHMIDT & CO.

PRESTON, ONT.

MANUFACTURERS OF

School, Office, Church and Lodge
Furniture.



ROTARY DESK

No. 50.

Send for Circulars and Price List. Name this paper.

S. Lennard, Sons, & Bickford,

DUNDAS, ONT.,

PATENTEES OF THE "ELYSIAN" SEAMLESS HOSIERY,

Manufacturers of Plain and Fancy
Hosiery, Caps, Tuques, Sashes,
etc., etc., etc.,

To the Wholesale Trade only.

Represented in Eastern Ontario, Que-
bec, Nova Scotia and New Brunswick,
by

F. W. NEWMAN & CO.,
21 Lemoine St., Montreal.

In Manitoba by
PEDDIE & CO.,
WINNIPEG, MANITOBA.

In Western Ontario by
S. LENNARD,
Senior Member of the Firm.

ESTABLISHED 1820.

EAGLE FOUNDRY.

GEORGE BRUSH,

14 TO 34 KING AND QUEEN STREETS, MONTREAL,

Maker of

STEAM ENGINES,
STEAM BOILERS,
HOISTING ENGINES,
STEAM PUMPS,
CIRCULAR SAW MILLS,
BARK MILLS,
SHINGLE MILLS,
ORE CRUSHERS,
MILL GEARING,
SHAFTING,
HANGERS AND
PULLEYS,

HAND AND POWER HOISTS FOR
WAREHOUSES, &c., &c.,

and Agent for

"Water's" Perfect Steam Engine Governor, and
"Heald & Sisco's" Centrifugal Pumps.

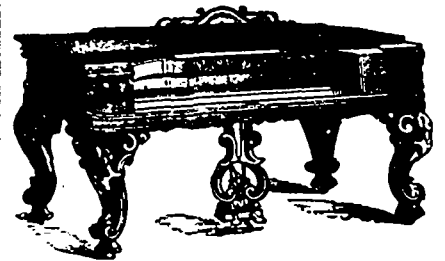


EVERY REPUTABLE DEALER KEEPS
THEM.

Insist on having the Genuine, and see
that they bear our name.

LANSDOWNE PIANO CO.

UPRIGHTS
- AND -
SQUARES



The Leading Canadian Pianos

STRICTLY FIRST-CLASS. Correspondence Solicited.

86 York St., Toronto.

Established 1872.

THE ACCIDENT

INSURANCE CO. OF NORTH AMERICA.

NEW FEATURE,

JOINT INSURANCE

FOR PARTNERSHIPS

IMPORTANT TO MANUFACTURING FIRMS.

MEDLAND & JONES,

GENERAL AGENTS,

Corner Adelaide and Victoria Streets,

TORONTO.

J. M. LAUGHLIN'S SONS,

CROWERS
MERCHANTS,
AND EXPORTERS OF

SHREVEPORT, N.Y.

AMERICAN TEASELS.

