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Vol. 16.

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No. 12.

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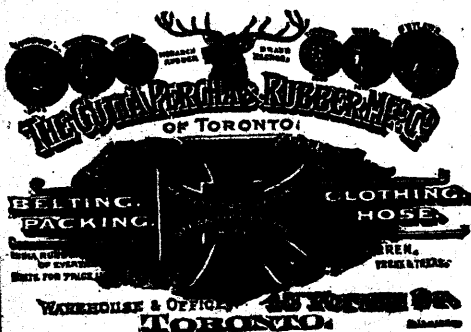
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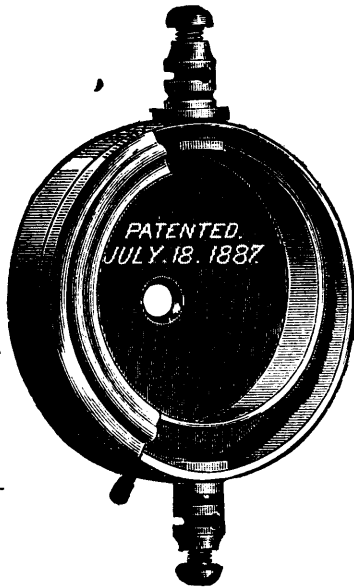
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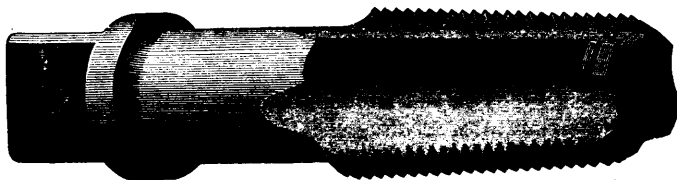
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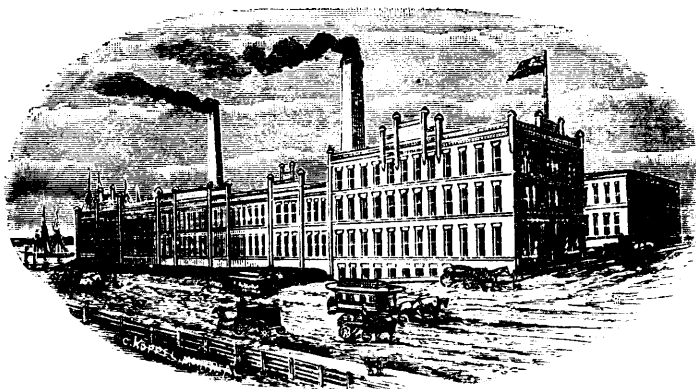
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JUSTICE VS. TRADES UNIONS.

READERS of this journal have been kept posted from time to time regarding the efforts of the labor organizations of Hamilton, Ont., to starve out a bricklayer there named Buscombe, because he did not belong to any such organization. This persecution culminated in April of last year, when David Gibson, William Mitchell and William Littlejohn engineered a resolution through the Bricklayers' and Masons' Union, of which they were members, imposing a penalty of \$50 upon any member of the union who should work for the city while Buscombe was employed by it in any capacity. At Buscombe's request these men were arrested on a charge of conspiracy, and were duly tried and convicted. They appealed to a higher court, where the finding of the lower court was confirmed, and the case sent back for final action, which was had in the Quarter Sessions in Hamilton, on June 14th instant. Following is the judgment of the court:

REGINA V. GIBSON AND OTHERS.

Judgment of Sinclair, J.: You, David Gibson, William Mitchell and William Littlejohn, were tried before me at the June sittings of this court, held about one year ago. On that occasion, after a fair trial, you were convicted. Since then you have taken the opinion of the Queen's Bench Division to determine whether that conviction was right or not. You were charged with a conspiracy to prevent one Edward Buscombe from carrying on his trade as a bricklayer. After a patient trial the jury found you guilty. By the exertions of your counsel, everything was done for you which the law would allow. It may not be out of place to recall to your recollection and to the recollection of the public the charge which was then made against you. The evidence showed that you were members of the Bricklayers' and Masons' Union, No. 1, of Hamilton; that Buscombe was a bricklayer employed as a day laborer by the corporation of the city of Hamilton, and that he was acting under the city engineer as foreman in the construction of sewers; that one Pigott was a contractor with

the corporation for the construction of a new city hall; that it was a private contract, and the city had no control over it except to see that it was performed; that Buscombe was not in Pigott's employment, but in the employment of the city; that Buscombe had at one time belonged to a union in Buffalo for about three weeks, when he ceased to be a member; that in the previous autumn the city was building a bell-tower, and that the Hamilton union had withdrawn its members from work on the bell-tower until such time as Buscombe should be suspended from his employment by the city. Buscombe was not then employed on the bell-tower, but in another work for the city, and he was suspended by the city under the pressure by this union in order that the city might get on well with the building of the bell tower. At a meeting of this union held on April 19, 1888, some forty or fifty members were present. That you, the defendant Mitchell, moved, and you, the defendant Littlejohn, seconded a resolution which was passed, to the effect that "no member of the union should be allowed, under a penalty of \$50 to work either on the new city hall or any city work until such time as Buscombe should be discharged from the corporation's employment;" and on that occasion you, the defendant Gibson, spoke in support of the resolution, and said that you thought it was as much to the interest of the stone-masons to hold out from that job as it was to the bricklayers, and you thought "it was the duty of every member to put Mr. Pigott to every inconvenience they could until such time as Buscombe was discharged; that it would be cowardly to lose the point you had gained at the then last fall over Buscombe." Other members of your union supported the motion, and spoke in the same strain, to fight the people they fought last fall, and not to be so cowardly as to run now; that it was to their interests to stand together and fight for the victory they had got, and not let Buscombe get the advantage over them. The evidence clearly showed that the whole purpose of the action of you men was to deprive Buscombe of his employment. The constitution of your union declares that "the objects of this union shall be the protection of its members, to assist each other by legal means in obtaining a fair and just remuneration for their labors, to aid in the case of sickness, for the burial of deceased members, the improvement of your skill as mechanics and the elevation of your social position." One of the rules was, "That no member of this union will be allowed to work more than two days with any journeyman bricklayer or stonemason that is not a member of this union, where there is a two-third majority or more of union men working, unless such person or persons consent to become a member of this union. In case of refusal to do so, the union men shall cease working with such person or persons. Any member or members violating this section shall be liable to suspension or expulsion." As I have remarked before, you have taken, as the law provides you can take, the opinion of a superior court on the validity of your conviction. Upon this you have failed. That court has held that the act was a lawless one, and that, as the jury had found you guilty of the offense, there was nothing in law in your favor. The Chief Justice remarked "that the constitution of all secret societies such as this union is professedly benevolent, but the use made of these societies by those who control them is frequently malevolent." And so it was in this case. The members of this union, actuated by malice against Buscombe, had the previous fall deprived Buscombe of his employment by withdrawing their men from work on the bell-tower. These defendants and the other members of this union present at the meeting referred to, actuated by malice against Buscombe, conspired and agreed together to again deprive Buscombe of his employment and to injure him. The authorities leave me no room to doubt that the defendants, in conspiring as they did to injure Buscombe by depriving him of his employment, were guilty of an indictable misdemeanor, and I am clear that what they then conspired to do was not for the purpose of the trade combination within the meaning of the statute. The evidence amply justified the conviction, and the conviction was right

and must be affirmed. In the language here used, it is needless for me to say that I entirely concur. Your conduct on that occasion was of the most malicious character. You were striving to injure a man that was doing you no harm. He was trying to earn his livelihood in a respectable way as an honest man should, and you, by your conduct, were trying to deprive him of the right to do so. I look upon such an offense as of a very serious nature. It is the right of every man under our law to earn an honest livelihood by his labor. You are striving to deprive him of that right, and were doing so in a manner which no honest man can support or countenance. I am sorry that others besides you were, I fear, guilty of the same malevolent spirit that actuated you on that occasion, and I think it right to say from this place that in condemning such conduct, as the jury did, they were simply doing a duty to their country. If such conduct as yours were to be permitted, no man would be safe, and honest labor could only be exercised at the will of a trades union. Fortunately such is not our law, nor do I believe it was ever the intention of your union under this constitution. You have been distorting it and using it for a bad and malevolent purpose. Not the elevation of your class, rather the ruin and injury of individuals. But the law is not disposed to evince towards you the same sort of justice that you were prepared to mete out to Buscombe. It is not vindictive. And now that you have had your trial and appeal to the higher court, it becomes my duty to impose the punishment. I intend on the present occasion that the sentence you are about to receive may be more of an example than a punishment. It will point out to you that although you have violated the criminal law in an essential particular, that the retributive justice of that law is not vengeance, but example. Possibly you each deserve a much heavier sentence than I think proper to impose upon you. The judgment is one which I hope in your cooler moments you will see the justice and propriety of; anyway, it will teach you and others that you cannot in trade unions do that which you did in this case, but that there is a higher duty towards your fellow-men than persecution; that it is nobler to take a man by the hand and try and assist him in earning an honest living, than in persecuting him and dragging him in the mire to suit your own selfish passions. I trust in this community that this is the last time that it will be necessary for me or any other judge ever to pass judgment upon any laboring man under such circumstances as this case discloses. The judgment of the court is that you each one pay to the sheriff of the county of Wentworth the sum of \$5 of lawful money of Canada, and that you remain in custody until such payment is made, and that on payment by each of you, you who so pays be discharged.

ENGLAND'S SUPREMACY IN THE WORLD'S COMMERCE.

VARIOUS trade returns and consular reports recently published by the governments of the United States and the United Kingdom suggest, says *Bradstreet's*, a number of interesting comparisons between the merchandise movements of the two countries. Save, perhaps, in the cotton manufacturing industry, business on this side of the Atlantic has not been exceptionally brisk during the past few months. In great Britain, on the other hand, the general revival of commerce and industry which began to attract attention early in 1888 has been fairly sustained. The calendar year 1888 showed a decided improvement over 1887 both in the volume and the character of business, and this improvement, Consul General Waller said, in his last formal report, was "not confined to any particular department of the trade or industry of the kingdom." The gain is apparently due to legitimate operations and not to

speculative activity. Ship-building, in particular, exhibits new signs of life, the tonnage of the vessels built last year having been exceeded only in two instances.

Detailed statements of the foreign trade of the United States have been published for the calendar year of 1888. Similar information is at hand for the United Kingdom for 1887. Comparing the year under review in each instance with the preceding year, there is shown to be an increase in both countries in the value of imports of merchandise. The increase in the United States was $2\frac{1}{3}$ per cent., and in the United Kingdom $3\frac{1}{2}$ per cent. The United Kingdom increased its exports in still greater ratio, the percentage of gain over the previous year being $4\frac{1}{2}$ per cent. But the volume of exports from the United States fell off even more than the gain in imports, the loss standing at $3\frac{1}{3}$ per cent. The imports of the United Kingdom are in round numbers two and one-half times as great as the imports of the United States, and the exports of the United Kingdom twice as great. These facts are shown in the statement that the imports of the United Kingdom during the year mentioned aggregated \$1,811,137,820 against \$725,202,489 for the United States; while the exports of the United Kingdom were \$1,403,815,805, an increase of $4\frac{1}{2}$ per cent. over the previous year, against \$691,777,447 for the United States, which was a decrease of $3\frac{1}{3}$ per cent. from the business of the previous year.

Attention is drawn to the enormous value of the British imports of food supplies and raw materials for manufacturing consumption. Breadstuffs, sugar, cotton and wool constitute over one-third of all the imports. Manufactures of cotton, wool, flax and iron, at the same time, make up over one-half of the national exports.

Another statement will show how closely the industrial interests of the United States and England are bound up together. Nearly one fourth of the imports into the United Kingdom are drawn from the United States, while one-seventh of the British exports go to that country. Great Britain imports almost as much from the United States as from France, Germany and Holland, nearly one-third more than from her own dependencies—India, Australasia and Canada—and five times as much as from Russia. She exports, at the same time, as much merchandise to the United States as to Australasia, British North America and China; as much again as to France, and one-quarter more than to India.

From a comparison of the imports and exports of the two countries by items, the supremacy of England in the commerce of the world stands out in clear relief. In 1888 the United States exported \$225,155,898 worth of cotton, while the United Kingdom imported in 1887, \$200,782,280 worth, less than \$30,000,000 of which was re-exported. Having been worked up into fabrics, that cotton was sent from England to every part of the world. In 1887 the United Kingdom exported \$301,420,405 worth of cotton cloth, against an exportation of only \$11,122,722 worth from the United States in 1888. Stated in yards the figures are yet more striking. The quantity of cotton piece goods exported from Great Britain in 1887 was 4,903,917,800 yards, but the exports from the United States in 1888 came to only 132,509,249 yards.

In the matter of supplying the world with iron and steel products and woolen goods the situation is about the same.

American machinery is in some respects unsurpassed, and yet the United Kingdom exports over \$55,000,000 worth in a single year to less than \$10,000,000 sent from the United States. Great Britain exports in like manner \$131,000,000 worth of iron and steel apart from machinery, while the United States exports less than \$10,000,000 worth and imports nearly \$44,000,000 worth. The United States exported also last year no woolen goods save \$734,419 worth, while the United Kingdom exports over \$105,000,000, and the United States import only a little less than \$50,000,000 worth. There is a curious illustration of the habits of the people of the two countries in the statement of imports of tea and coffee. In the years under consideration over three times as much coffee was imported into the United States as into the United Kingdom, but little over one-quarter as much tea.

About one fifth of the annual revenue of the United Kingdom is derived from three articles of importation, viz., tea, spirits and tobacco. These commodities yielded in 1887-88 upwards of \$87,000,000. Only \$10,000,000 was derived from all other duties on imports. Internal taxes on spirits and malt liquors, including licenses, yielded \$125,000,000; stamp taxes, chiefly on deeds and other instruments, and on legacies and successions, directly and indirectly, brought in \$65,000,000 further, and most of the remainder of the total revenue of \$406,000,000, not reckoning the Post Office receipts, was drawn from the income tax. The revenue and expenses of the country were calculated closely enough to leave a balance on hand at the beginning of the current year of less than \$12,000,000.

PROTECTION IN ENGLAND.

In a recent issue of this journal it was shown that in the article of tobacco Great Britain not only enforced a protective policy, but that her Protection was much stronger than that of either Canada or the United States. This was said in commenting upon an expression in the *Toronto Mail* to the effect that "those Canadians who imagine that Britain will revert to the idol of Protection for the sake of effecting a federation of the Colonies, will not find much comfort in the fate that has befallen Lord Salisbury's sugar policy." We showed that while Britain levied a revenue tax of 3s. 6d. sterling per pound on leaf tobacco, she also levied an additional duty of 1s. 6d. sterling per pound on manufactured tobacco, thus absolutely excluding from that country all foreign manufactured tobacco—that all the manufactured tobacco consumed in Britain must be manufactured there.

And now comes the Calcutta Trades Association with a vigorous protest against the recent decision of the British Government rejecting the application of certain Hindoo manufacturers of silver ware to be permitted to send their products into Britain free of duty. The protest states the fact that the British duty upon imports of silver-ware is 1s. 6d. per ounce, or about 33 per cent. of the value of the raw material, which, they say, "is enough to handicap any trade, and sufficiently accounts for this particular trade being stationary, if not retrogressive."

The law in England requires a "hall-mark" on all plate manufactured there; and this mark is usually considered satisfactory evidence that the article so marked is just what it is

represented to be. Of course, if there were no dishonest people in the world—not even among British manufacturers of silver-plate—this mark would be of great importance. But it must be remembered that any adept workman can readily remove that portion of any plate upon which such mark may be stamped, and insert it into an article of his own manufacture, no matter where it might be made, and regardless of its intrinsic value. Such things are done, and done frequently; and although such transfer may be unlawful in Britain, it is done in other countries, the deceptive object being to create the impression that—the article thus manufactured bearing the British hall mark—is just what it is represented to be. We are informed that it is no unusual thing to find such fraudulently marked plate even in Canada. This fact is stated to illustrate that the hall-mark is no guarantee of the origin and quality of plate outside of Britain, and not always there.

With regard to the Hindoo manufacturers, they state that there is no other standard in India of the purity of silver bullion, of which their silver-ware is made, but the Indian Government rupee standard, and which, under the existing English law, cannot be admitted into England. They think that "the compulsory hall-marking law is unwieldy and cumbersome, narrowing and restricting the manufacture of silver-plate in England to a favored class, and acting as a Protectionist tax in favor of English silversmiths and against the Indian manufacturer." They do not see any logical reason why the purchasers of silver-ware in England should enjoy a special system to protect them against fraudulent dealers any more than purchasers of electro-plated ware or other metal, plated-ware being quite as open to fraudulent practices as silver-ware, while even more difficult of detection.

The Hindoo manufacturers of silver plate are to be commiserated; but until India attains a political status similar to that of Canada, where the right exists to establish and maintain a protective tariff of their own, they need never hope for any different treatment at the hands of the Imperial Government. India is a great producer of cotton, also a great consumer of cotton goods. If India had Protection, the manufacture of cotton goods there would become a vast and valuable industry. Britain insists on the privilege of sending silver-plate into India duty free, but when Hindoo manufacturers want to send India-made silver-plate into Britain, they are confronted with a duty of 33½ per cent.

"I LEAVE TO-DAY FOR EUROPE."

MR. STAPLETON CALDECOTT writes a letter to the *Toronto Globe*, enclosing an extract taken from the *New York World*, which states that in fourteen counties in the State of New York the assessors report that the value of farming lands had fallen considerably, and will fall still more in the near future; and Mr. Caldecott thinks that such results as these must clearly show to the farmers, whether of the States or Canada, that whatever protection to manufacturers may do, it can do nothing for farmers in the way of increased prices; but that it can and does very materially advance the price of all he has to purchase or consume, both in the way of farm implements and clothing. Mr. Caldecott says that "the sooner the Canadian farmer asserts himself, and throws off the trade shackles in which he is at present bound, the better for himself and

for our great and growing Dominion. I leave to-day for Europe."

It is very possible that the value of farming lands in New York have depreciated in value, but the reports of assessors are not necessarily conclusive evidence to that effect; and if such is really the case, Mr. Caldecott has no reasonable ground for charging it to Protection. We esteem it exceedingly unfair to charge it to a system that has within less than thirty years lifted the United States out of the forlorn condition that country was in at the close of the Rebellion, and made it probably the most prosperous on the face of the globe. There are hundreds of thousands of people employed in manufacturing industries in the State of New York, the success of which industries depends entirely upon the protection against foreign competition afforded them by the United States tariff. Without this protection these industries would fail, and the people employed in them be forced to seek their living by agricultural pursuits. As it is, they are fed by those who are now employed in such pursuits; but if these people now engaged in manufacturing were thrown out of employment, to whom would the farmers sell the produce they now raise on their farms, and consumed by these mechanics? And how much better off would they be if the army of farmers was increased by the hundreds of thousands of workmen thus thrown out of employment, while the market for their produce was taken away from them? Suppose, as Mr. Caldecott says, that Protection can do nothing for the farmers in the way of increased prices for their produce, which is clearly not the case; if Protection should be withdrawn, and the hundreds of thousands of mechanics, who are now consumers of farm products, thrown out of employment, as they would be, where would the farmers find a market for the things they raise? Mr. Caldecott would no doubt tell them to sell their truck in Europe. Perhaps they might find a market for it there, but this is not likely; for as the great distance and high cost of ocean transportation would debar the shipment of the more perishable and more valuable articles, market gardening, to which such a large portion of the farming lands in New York is now devoted, would immediately cease to be a profitable employment; and as grain raisers the farmers could not hope to compete with farmers in the Western States. In such event their last condition would be infinitely worse and more deplorable than it is now.

Mr. Caldecott says that "Protection can and does very materially advance the price of all the farmer has to purchase, both in the way of farm implements and clothing." This is also evidently wrong. In the first place, quality, durability and effectiveness being considered, all manner of farm implements and machinery produced in Canada and the United States are better and more desirable than any produced anywhere else in the world; and if Mr. Caldecott is at all acquainted with the subject which he discusses, he should know that they are much cheaper. Mr. Caldecott is, we believe, a wholesale dealer in foreign made textiles; and we are not aware that he includes Canadian textile fabrics in his stock to any noticeable extent. But if he did, he should know that in all but the finest and most expensive lines of goods, which are worn exclusively by the wealthy who can afford to pay the duty, there are few if any lines of Canadian-made

goods such as the farming and working classes use that are not produced of as good quality and at as low a price as any similar imported goods in Mr. Caldecott's store. And this fact also obtains in the United States, as Mr. Caldecott can learn on application to well-informed persons there.

Mr. Caldecott appeals to the Canadian farmer to "assert himself and throw off the trade shackles in which he is bound," kindly promising that his doing so will be better for both him and "our great and growing Dominion." The key to this impassioned and patriotic appeal lies in the closing sentence of his letter, "I leave to-day for Europe." He cannot dissociate himself from the old country, although he would create the impression that he is solicitous about the new. Canadian farmers do not seem to be suffering under the galling chains and "trade shackles" of Protection. They have been appealed to time and again on this subject, and their reply is always in favor of the N.P.

BLAST FURNACE CAPACITY—BRITISH AND AMERICAN.

The *Bulletin* of the American and Iron Steel Association makes some interesting comparisons of the pig-iron producing capacity of the leading plants in the United States, the United Kingdom and elsewhere. It says that the recent consolidation of the three big steel companies of Illinois into one company, controlling, besides its steel works and rolling mills, fourteen large blast furnaces, makes an enquiry into the relative capacity for producing pig iron of the large iron companies of the world an interesting subject. The Illinois Steel Company heads the list in number of stacks, while its producing capacity is much greater than that of any other company in the country, and very much greater than that of any company in Europe. The aggregate capacity of the fourteen furnaces of the Illinois Steel Company is rated at about 800,000 gross tons per annum. Next to these in capacity are the nine furnaces belonging to Mr. Andrew Carnegie and his partners at Pittsburg. Their aggregate capacity is about 600,000 tons per annum. Two more furnaces are soon to be built by Mr. Carnegie and his associates, and when these are completed their eleven furnaces will closely approach in capacity those of the Illinois Steel Company. Next in order come the ten furnaces of the Tennessee Coal, Iron & Railroad Company, in Alabama and Tennessee. Their aggregate capacity is about 400,000 tons per annum. The Pennsylvania Steel Company, with its four stacks at Steelton, Pa., has a capacity for producing about 150,000 tons of pig iron a year. It has also four furnaces of the largest size built and building near Baltimore, Md. When all these are completed this company will possess a furnace capacity which will give it third place among the pig iron producers of the United States. The Cambria Iron Company, controlling nine stacks at and near Johnstown and at Hollidaysburg, Pa., has a capacity for producing about 350,000 tons of pig iron per annum. [Wrecked by the late floods, but to be rebuilt at once.] The Thomas Iron Company, the largest producer of foundry pig iron for the open market in the east, controls twelve furnaces, all in eastern Pennsylvania. These furnaces, however, are not of the largest size, and several of them are old; hence their total annual capacity is rated at somewhat less than 200,000 gross tons per annum.

No other American companies have furnace capacity sufficient to produce 200,000 tons of pig iron in one year, although several could produce in the neighborhood of 150,000 tons yearly. Several other companies each have sufficient furnace capacity for producing over 100,000 tons a year.

Looking at the iron industry of our great rival, Great Britain, says the *Bulletin*, we find several companies or firms with many more furnaces than those owned or controlled by any American company, but none whose producing capacity approaches in magnitude that of the Illinois Steel Company.

According to a recent edition of Ryland's Directory, Messrs. Bolckow, Vaughan & Co., of Middlesbrough, Yorkshire, who have the largest blast furnace capacity in Great Britain, have twenty-eight blast furnaces, but their total capacity is rated at only 580,000 tons per annum. Messrs. William Baird & Co. have thirty three furnaces in Scotland, but their total yearly capacity is given as only 340,000 tons. The Barrow Hæmatite Steel Company, of Barrow-in-Furness, Lancashire, has fourteen furnaces, and their total yearly capacity is 360,000 tons. The Messrs. Bell Brothers, of Middlesbrough, have fourteen furnaces, whose total yearly capacity is rated at 327,000 tons. Messrs. Merry & Cunninghame, makers of the well-known "Glengarnock" and "Carnbroe" brands of pig iron, have twenty furnaces in Scotland, with a total yearly capacity of 208,000 tons. The Wigan Coal and Iron Company, of Wigan, in Lancashire, England, with ten furnaces, has about the same capacity.

These British companies, with many more furnaces, produce much less pig iron than American companies, partly because many of the British furnaces are small and of antiquated construction, and partly because much of the ore used in Great Britain is "lean," requiring three tons or more of ore to produce a ton of pig iron; whereas, with the best Lake Superior ores, which are so largely used in American furnaces, a ton of pig iron can be produced with much less than two tons of ore, while with the Cornwall, Hudson River, and Salisbury ores, which are also largely used, the quantity of ore required to produce a ton of pig iron seldom exceeds two tons. The main cause, however, of the smaller production per furnace in Great Britain is that at British furnaces of the latest construction the blast machinery is run at lower pressure, and all other appliances at proportionately slower speed than at American furnaces.

Outside of Great Britain the only iron-making companies in any country whose pig-iron producing capacities are sufficiently large to compare with the leading American companies, are Krupp's at Essen, in Germany; J. Cockerill & Co., at Seraing, in Belgium; and Schneider & Co., at Le Creusot, in France. None of these works, however, produce as much pig iron annually as the largest English works, and consequently produce very much less than the largest American works.

CANADIAN HARVESTING MACHINERY.

THE financial aspect of some Canadian manufacturing industries was most intelligently discussed by Mr. B. E. Walker, general manager of the Canadian Bank of Commerce, at the general annual meeting of that institution in this city a few days ago. Speaking of the manufacture of agricultural implements, Mr. Walker said:—

The manufacture of harvesting machinery has been so largely and successfully developed in Ontario that in any review of

our business it commands a prominent place. The output during the present season will be probably ten to fifteen per cent. in excess of last year, and while the profits have been curtailed by competition, the large and perfectly equipped establishments are making as much money as could be expected in view of the quantity now manufactured. The collections—the great point with a banker—have been quite up to the level of former years, the experience of the largest companies being that of the enormous amount of farmers' paper maturing in October, November, December and January last, not more than five or six per cent. remained unpaid by the first of May; any renewals granted being counted in the unpaid percentage. The length of the credit to the farmer has been lessened considerably, and every year sales are being more carefully made. But while the great manufacturing companies are doing well, the case is different with the smaller ones. The selling prices during the last four years have fallen say twenty per cent., and although the perfectly equipped manufacturers have been able to bring about nearly an equivalent saving in labor and material, the small ones have been unable to effect this saving. As a consequence, of some twenty-two makers of harvesting machinery existing four years ago, only fifteen, I believe, are now left, and, of these, four manufacture three-fourths of the entire product. Whether this is a good or a bad state of affairs, it is the natural course of manufacturing in a country where the growth of the market does not keep pace with the enterprise of the manufacturers. The three largest companies, all customers of this bank, could, I presume, supply the wants of the whole of Canada unless the wants of the North-West grow very rapidly, as I sincerely hope they may. With this great power of producing cheaply some of our friends are successfully finding a foreign market for their product, and should they be able to compete with the exporting manufacturers in the United States, there may yet be a greater development of this industry than we have supposed possible. In order to compete successfully, however, the circumstances under which our machines are made must be as favorable, having regard to capital, cost of labor, cost of material, and means of transportation, as the conditions elsewhere. In addition to reapers and binders, the manufacture of the less important farm implements and of wagons is steadily increasing. The wholesale manufacture of wagons is now becoming an assured success here. The furniture business, the development of which to its present proportions has all been accomplished in fifteen or twenty years, is capable of unlimited enlargement, provided a foreign market can be secured. All of these and many kindred industries are at present in a satisfactory condition. Depending as they do on our own raw materials, especially our hardwoods, of which we have an inexhaustible supply—destined to be of incalculable value to us—these are the natural manufactures of a country which for a long time yet must be mainly an agricultural country; and everything which the enterprise of our people or the wisdom of our legislators can do to make these industries successful and enable us to use this raw material, should be regarded as of greater importance than the well-earned success attending our manufacturers, whose raw materials have to be imported.

EDITORIAL NOTES.

THE Montreal *Herald* alludes to the Chicago *Tribune* as a "protectionist" paper. Go away from home to learn home news. No one who has ever read the *Tribune* would accuse it of being anything else than an ultra Free Trade journal.

Good Housekeeping says some very sharp things about papers that steal articles from that journal. In the current number is published a list of some of the things that have recently been stolen, and the names of some of the thieves are also mentioned.

"ARDENBRITE" is a new invisible lacquer recently introduced into London. It is so strong as to withstand weather, smoke, steam, sea air or sea-water, and gold, silver, copper, steel, brass or iron does not tarnish when coated with it. As it is so fine as to be unseen on the most delicate instruments, the new lacquer has an extensive field of application.

So long as we maintain a protective tariff it will be a waste of money and energy to undertake to extend trade with foreign countries by subsidizing steamship lines. Subsidizing steamers for the carriage of mails, of course, is a different matter.—*Montreal Herald*.

Wouldn't the *Herald* kindly allow merchandize to be carried in ships that had been subsidized for the carriage of mails?

AN electric fire engine, which can be tapped for service whenever wanted, is the latest invention. The advantages claimed are that it can be started at full speed; that it is much lighter than a steam fire engine of equal power; that it costs one-third less; that it is noiseless in its operation; makes no smoke, sparks or ashes; that it is safer and easier to control, and that it is economical.

FREE Trade Englishmen are coming here and buying everything in sight. British prosperity without any high tariff is a solemn fact.—*Louisville Courier Journal*.

It is funny that Free Trade journals see any corroboration of their views in this "solemn fact." Free Trade Englishmen are free to invest their capital in Free Trade England if they want to, but they prefer investing where their investments are protected.

THE following, from the *Irish Leather Trades Journal*, bearing on the question, "To advertise or not to advertise," is too good to pass by:—"Why don't you trade with me?" said a close-fisted leather merchant to a shoemaker the other day. "Because," was the reply, "you have never asked me, sir. I have looked all through the *Journal* for an invitation in the shape of an advertisement, but in vain. I never go where I am not wanted."

At the recent meeting of the American Leather Belting Association, held in Philadelphia, it was resolved that the association should decline to guarantee any leather belting for a longer period than one year, and that such guarantee should only cover material and workmanship; that it would not guarantee any belting exposed to mineral or vegetable oils, or wherever the so-called "belt-dressings" are used, except such as are used by the manufacturer in dressing belt leather.

THE great Cambria Iron Works at Johnstown, Pa., before the terrible disaster there, gave employment to some 7,500 people, about two-thirds of the population of that town being dependent on them for support. The flood destroyed them, and now they are as idle and useless as they would have been if the Free Traders could have carried the last election and destroyed Protection. The destruction of Protection could not be less destructive of the manufacturing interests of the country than the flood was of the Cambria Iron Works.

AN ingenious arrangement has been recently patented for the fitting of a small cook oven for use on steam launches. This arrangement was devised in the first instance by the

inventor for his own convenience on a steam launch belonging to himself. Feeling the daily want of some means of cooking, he arranged the smoke-box in such a way that he can now cook anything he requires, without interfering with the draught of the boiler, everything being as convenient and comfortable as possible. The arrangement can be easily fitted to any existing boiler at a small cost.

THE *World* alludes to the fact that the American representatives at the Samoan Conference in Berlin, do not understand German, and says that this is "an inconvenience that cannot well be dissociated from a system under which places of influence are the reward of service to party rather than of service to country." The American commissioners were sent to Berlin to transact business rather than to talk German. Two-thirds of the commissioners are English-speaking, and whether the Yankees speak German or not they seem to know how to drive a good bargain for their country.

THE *Canadian Manufacturer*, a Tory organ, says that the N. P. is to millers what strength was to Samson. As the millers find that they can not go on under the N. P., it would be more accurate to describe that measure as the Delilah.—*London Advertiser*.

Go to, thou uncircumcised Philistine of a Free Trader. The N.P. is all right, the millers are all right, and the tariff law will be amended at next session of Parliament, so that the duty on a barrel of imported flour will be quite as high as the duty on the quantity of wheat necessary to make a barrel of flour. There will be no Delilah business about it.

TRAINS of the Canadian Pacific Railway now run through from Montreal to St. John, N.B., in 18 hours, saving several hours in time and 270 miles in distance over the route by the Intercolonial, and to Halifax in 27 hours, saving about 10 hours. The Canadian Pacific has also put on trains by way of the Soo line, whereby passengers can go from Minneapolis to Halifax with only a single change of cars. This inaugurates a serious competition with lines in the United States, and yet a considerable portion of the Canadian route lies outside of Canada, in the States of Minnesota, Wisconsin, Michigan and Maine. What is the Interstate Commerce Commission going to do about it?—*Railway Age*.

A CHEAP method has been discovered of dissolving zinc by combining it with hydrogen, and producing a solution called zinc water. This liquid, if applied to certain woods, notably whitewood, makes it absolutely fireproof, and at a low cost. Mr. Edward Atkinson, in speaking of it, says he regards the discovery as one of the most important of the age, and one that will sure'y revolutionize fire insurance, as well as immensely decrease the losses by fire. The invention is kept secret for the present; only one foreigner, Sir Lyon Playfair, the English scientist, knows of it, and corroborates all that is claimed for the invention. As soon as patents are perfected and capital interested, zinc water will become an article of commerce.

ATTENTION is directed to a communication appearing in another page of this journal regarding "Tariff Incongruities."

It is from one of the largest and most important manufacturing concerns in Canada, and it should command close consideration by the customs authorities. It speaks of some of the disadvantages under which certain branches of trade labor, the effects of which are not only obnoxious to the manufacturers, but to thousands of working people employed by them, all of whom contribute more or less to the prosperity of the country. The Government are bringing the contents of several hornet nests into pernicious activity about their ears because of their unwisdom in refusing to adjust the incongruities of the tariff, while at the same time underling and irresponsible officials are allowed to interpret the tariff to suit themselves. The Government had "better look a leedle out."

THOSE of us not yet fifty years of age have probably lived in the most important and intellectually progressive period of human history. Within this half-century the following inventions and discoveries have either been placed before the world or elaborated:—Ocean steamships, railways, street tramways, telegraph lines, ocean cables, telephone, phonograph; photography and a score of new methods of picture making; aniline colors, kerosene oil, electric lights, steam fire engines, chemical fire extinguishers; anesthetics and painless surgery; gun-cotton, nitro-glycerine, dynamite, and a host of other explosives; aluminum, magnesium, and other new metals; electro-plating, spectrum analysis, and the spectroscope; audiphone, pneumatic tubes, electric motors, electric railways, electric bells, typewriters, cheap postal system, steam heating, steam and hydraulic elevators, vestibule cars, cantilever bridges. These are only a few out of a multitude. All positive knowledge of the physical constitution of planetary and stellar worlds has also been attained within this period.—*London Iron.*

A MOVEMENT is on foot in New Haven, Ct., to have the common council pass an ordinance prohibiting the blowing of factory whistles within the city limits. The *Register*, speaking of the custom of factory whistle blowing, says: "There is no doubt that they are a source of great annoyance to people who are nervous, who may be ill, or troubled with insomnia. In fact, steam whistles and the crowing of roosters are matters of almost daily complaint which physicians have to listen to. The custom of blowing whistles probably came from the fact that, years ago, when only the wealthy people were able to own watches, the poorer classes needed something to remind them that the hour for commencing or quitting work had arrived. In these days, however, it is not thought that the average day laborer needs to be prompted about such things, for if he does not wear a gold hunting case watch, he at least has a Waterbury, which answers all purposes."

THERE is money in baking powder, especially of the Royal brand. The long litigation between William Ziegler and Dr. C. N. Hoagland has just been terminated by the latter and his brother buying Mr. Ziegler's 690 shares of stock for two and a half million dollars. As the par value of the stock is only \$100 per share, it will be seen that Mr. Ziegler got the handsome premium of over \$3,500 per share. The litigation between the parties grew out of an alleged attempt of the Hoaglands to force Ziegler out of the company by raising their own salaries to \$50,000 each per year, thus cutting down the dividend power of the company. Ziegler appealed to the courts, and had the salaries of the officers reduced to nominal sums. An appeal from this action was taken and has since been pend-

ing. The purchase by the Hoagland brothers gives them absolute control of the company, and they will doubtless recoup themselves for their great outlay within a very brief time, on a standard article of merchandise which enjoys great popularity.

ALLUSION is made elsewhere in these pages to the works of the Dominion Barb Wire Company at Lachine, Que., by which it is shown that this is one of the most important manufacturing concerns in Canada. The buildings, machinery, etc., of these works originally cost over \$200,000, and during last year the company expended \$50,000 to still further increase their capacity, in anticipation of a largely increased demand for their products. Owing to the Government not giving any protection to galvanized and tinned wire finer than number 15 wire gauge, and having recently passed an Order-in-Council allowing annealed, bright and coppered fine wire to be imported free of duty, this company have cancelled orders for new machinery for this department which was already under way; a considerable reduction has been made in the machinery used in the production of this class of goods, and some of the workmen have been discharged—the company declining to spend any more money for this branch, until they have reasonable protection against German cheap labor.

ONE of the most interesting gatherings which take place during the course of the summer months is the annual convention of commissioners of State bureaus of statistics, which has now, apparently, become a permanent thing. The work which has already been done by these conventions has been important. They have done more than could have been done through any other means to acquaint all of the members with the methods and spirit of the most advanced among them. The work which it is possible for statisticians to accomplish in the future through concerted action is, however, even more important. They will attain their greatest measure of usefulness by co-operating in the work of gathering statistics, and by working, as far as possible, on a uniform plan. The next convention of the commissioners will be held at Hartford, Conn., on June 24, for a four weeks' session.—*Bradstreets.*

It is to be regretted that the different Provinces of Canada do not maintain bureaus of statistics similar to those above alluded to. Such bureaus should be established to operate in harmony with a Dominion bureau, and the whole should fraternise with those of the United States, from which great good would undoubtedly result.

IT is not often that chemistry is used as a means to detect larceny, but this actually happened in a Montreal boarding house a few days ago. A young man who had a great liking for scented soap was much annoyed at frequent intervals to find that his soap had disappeared. He complained to the proprietor of the house, but as there were many other boarders in the house that gentleman, though he was willing to do his best, was powerless. The young man got tired of losing his soap and determined to put a stop to the practice. He bought a lovely cake of soap and carefully doctored it with nitrate of silver. This has the property that in the presence of sunlight and moisture it will turn the skin black, and the black won't come off. The cake of soap was carefully deposited on the washstand and further developments awaited. Very soon the soap disappeared, and the young man knew what to expect. The next morning the boarders were startled by an

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Messrs. F. E. DIXON & CO.
Gentlemen,

The eighteen-inch Driving Belt we had from you in July, 1879, has given us thorough satisfaction. It has done all the work in our factory ever since, and looks as if it were good for the next ten years.

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TORONTO.

individual rushing down stairs shouting that he must have some horrible disease. His hands were black and so was his face. "No disease at all," said the proprietor; but you are the man who has been stealing the soap. Get out!" and the individual had to leave. It will require several days for the black to disappear.

COMPLAINTS are sometimes made of errors which the most elementary knowledge of the Morse telegraphic alphabet would detect, and little credit is given to the fact that the most perfect telegraph is subject to strange disturbances from terrestrial and atmospheric causes beyond the control of the operator. A flash of lightning in America may cause an extra dot in Europe, and "mine" may become "wine." An earthquake in Japan may send a dash through France, and "life" would become "wife." A wild goose flying against a telegraph wire might drive it into momentary contact with another wire, and "sight" might become "night." Nine tenths of the errors made are due to the execrable handwriting of the present day. The quantity of news transmitted is enormous, and an average of 1,538,270 words are delivered per day. The recent Republican Convention in Chicago created so much business that every American paper has chronicled this big thing as unique. On one night 500,000 words were sent; but when Mr. Gladstone introduced his celebrated Home Rule Bill on April 8, 1886, there were sent from the Central Telegraph Office in London 1,500,000 words. Cooke and Wheatstone required five wires for their first needle instrument to work at the rate of four words per minute. One wire can now convey six messages at ten times the speed.

MR. E. STEINFELD, who is President of the Chamber of Manufactures of Melbourne, Australia, was in Toronto a few days ago. He bears a commission from the Governor of Australia, also one from the Minister of Education there, empowering him to obtain such information, general and special, as can be of benefit to that antipodean country. Mr. Steinfeld informs us that a strong desire exists in Australia for closer trade relations between that country and Canada, and that the liveliest interest is taken in the steamship line proposed to be established between the two countries. Other things being equal, he says, the merchants of Australia would much prefer trading with Canada than with the United States; and one of the objects of his visit here was to learn the sentiments of our people on that subject, and to encourage and to promote such closer trade relations. He had already visited Montreal and other places, both in Quebec and Ontario, and expressed himself as much pleased with the energy and enterprise he had witnessed. He is specially interested in the technical education of youths, making the matter a close study, with a view to the better development of a manual training school which he is promoting in Melbourne. Mr. Steinfeld was a passenger on the steamer that touched at Apia, Samoa, and brought away the officers and crews of the American war ships that were wrecked there recently. He gives a graphic description of the appearance of the harbor of Apia when he was there, which was but a few days after the occurrence of the cyclone. Mr. Steinfeld has proceeded on his journey to England and the continent in the interest of the business he has in hand.

OUR facetious correspondent, G. A. S. O'Leone, is evidently in league with the old foggy insurance people of this country, who really don't know a good thing when they see it. Perhaps he is an insurance man himself, and would be willing to be coaxed into accepting gasoline risks at exorbitant premiums, well knowing that there is not as much danger in the use of gasoline stoves as there is in coal oil lamps, or liniment composed largely of benzine. If he is not aware of the fact, we can inform him that in the United States there are probably as many as forty large establishments engaged in the manufacture of vapor, or gasoline stoves, giving employment to large numbers of skilled workmen, and producing hundreds of thousands of such stoves annually. Of course the proprietors of these factories do not manufacture these stoves merely to pile them up in warehouses, but to sell them to sensible people, who prefer to use them in hot weather in preference to suffering from the heat and inconvenience attending the use of coal and wood burning cook stoves. Our insurance friend—if such he really be—must certainly know that all talk about the explosion of vapor stoves is in the way of fighting an imaginary enemy. Vapor stoves do not explode, simply because that is an impossibility; and our correspondent can win big money if he will only demonstrate the contrary fact. We can put him in communication with a responsible party who offers to pay one thousand dollars for any well authenticated account of a gasoline stove explosion. A cool thousand—think of it! The weather is warm and the vacation season at hand; and if Mr. G. A. S. O'Leone would like to make the tour of Europe and visit the Paris Exposition, here is his chance to have his traveling expenses paid. All he has to do to win this big money, is to demonstrate the explosion of a gasoline stove. We take pleasure in informing him that in the United States, where there are hundreds of thousands of gasoline stoves in constant use, the insurance companies have withdrawn their opposition thereto. They had to. They had either to take risks without discriminating against those where gasoline stoves were used, or retire from business—and insurance companies are not usually of a retiring disposition. They remember the story of Alfred the Great.

SPECIAL ADVERTISEMENTS.

TISDALE'S BRANTFORD IRON STABLE FITTINGS.—We lose no job we can figure upon. Catalogue sent free. The B. G. Tisdale Co., Brantford, Canada.

KNITTING **CREELMAN BROS.,** **MACHINES.**
Georgetown, Ont

I WILL give a free deed of ten lots on the Scugog River to anyone who will start a manufacturing establishment employing a certain number of hands. A. D. MALLON, Lindsay, Ont.

FOR SALE—at Merrickville, Ont., within five minutes' walk of the C.P.R. station or the Rideau canal wharf, a first-class Water Power with substantial buildings suitable for roller mill or other heavy machinery. Apply to Mrs. M. P. MERRICK, Merrickville, Ont.

THE *Baltimore Journal of Commerce* celebrated its 40th birthday on the 15th instant by enlarging its size to sixteen pages, the four additional pages being added in shape of a tinted cover, which is for the display of advertising matter, thus giving its staff the room needed for a thorough review of markets, which this publication promises to keep full and as usual thoroughly reliable.

EVERY issue of *Once a Week* contains forty-eight pages, the publishers claiming it to be the largest society and family journal in the world. Each number is accompanied by a supplement containing a complete novel, unabridged and unaltered. The staff of writers is chosen from some of the best and most reputable authors, the result being that the paper is constantly increasing in attractiveness.

THE Detroit and Cleveland Steam Navigation Company have sent us a beautifully illustrated book, descriptive and historical of the many points of interest to be seen in a trip over the routes covered by the steamers of this company through lakes Erie, St. Clair, Huron and Michigan. The descriptions are of such vivid and delightful character as to make one feel that the only correct thing to do is to make the tour; and the pictures illustrating the many points of interest, and the elegant steamers of the company in which the trip should be made, serves to change desire into resolution. Mr. E. B. Whitcomb, general passenger agent of the company at Detroit, Mich., will send the book on application.

THE Canadian Pacific Railway Company, through Mr. W. R. Callaway, the Toronto district passenger agent, has sent us "Summer Tours," a neat and most interesting description of places that may be reached by that road. There are descriptions of tours that may be made to the Maritime Provinces by the company's new short line through the State of Maine, to the lower St. Lawrence and the gulf ports, etc.; western tours across the continent to the Pacific Ocean, and to all intermediate places and other towns; to the Thousand Islands, etc., the whole beautifully illustrated by maps, and views of scenery, etc., that afford some idea of the places and things to be seen. Mr. Callaway will take pleasure in sending the book free to all applicants who enclose a two cent stamp to pay postage.

A NUMBER of Orders-in-Council have been passed recently in reference to customs matters. Veneers of wood, shaved or cut with a knife direct from the log, not planed or otherwise smoothed or manufactured in any way, are rated for duty under item No. 153 of the schedule at ten per cent. *ad valorem*. Second process molasses, testing by polariscope less than thirty-five degrees, when imported by manufacturers of blacking for use in their own factories in the manufacture of blacking, may hereafter come in duty free, under certain conditions; wire of iron or steel, galvanized, tinned or coppered, or not of sixteen gauge or smaller, when imported by manufacturers of wire cloth, wire work, brushes, pianos and plated ware, to be used for these purposes only in their own factories, is also placed on the free list. Yarns made of wool or worsted, the same being genapped, dyed and finished, when imported by manufacturers of braids, cords, tassels and fringes, to be used for these purposes only in their own factories, are placed on the free list until the end of the next session of Parliament. The Order-in-Council interpreting item No. 57 of the tariff so far as it relates to plough plates, mould boards and land sides, which expired at the close of last session, is continued in force until the end of next session.

THE Customs authorities have seized a number of imported time detectors on the ground of undervaluation. They are manufactured by a firm in Cleveland, and are a kind of tell-tale clock to be fitted up in factories with connections on every flat, so that the watchman, by pressing a button, registers on a dial inside the clock the exact moment at which he visited every part of the building. The average price charged, including duty and fitting up, was \$140, and about a dozen firms in this city supplied themselves with them. They were entered at about \$40 each, and on this a duty of 30 per cent. was charged as mechanical contrivances. The \$140 of course included duty and the cost of fitting up, but even then the difference between that and the \$40 at which they were entered was excessive. A certain electrician ordered one and stipulated that he was to fit it up and pay the duty himself. In this case the apparatus was entered at a price 50 per cent. higher than usual. This excited suspicions, and shortly afterwards the company were engaged in correspondence with what they thought was a prospective customer, and the letters quoting the higher price fell into the hands of the Customs authorities. The company was invited to explain, and Mr. Dougherty, the manager, came on to interview the Collector of Customs. The latter asked him to make a deposit to cover the amount of duty and the probable penalty, and he could afterwards come to an arrangement with the Customs department. Mr.

Dougherty thanked him for his courtesy and promised when he went back to Cleveland he would arrange with his banker to send on the amount at once. Instead of doing so, however, the Collector of Customs received from a firm of lawyers a threatening letter, to which he paid no attention. In order to secure the department he placed a seizure on all the clocks in the hands of the owners, but in order not to inconvenience them, they being quite innocent of the fraud, he released them on being given a guarantee that they would be handed over whenever required to do so. Those who had not yet paid for them had to give a guarantee that they would not forward the money to the manufacturers until the case was settled, and as most of them had not paid, the claims of the department are secured. The Customs officials have acted throughout with the greatest consideration, and have done their utmost to save the parties interested from any inconvenience.—*Montreal Gazette*.

GASOLINE STOVES.

Editor of CANADIAN MANUFACTURER.

SIR.—I notice that you recently recorded some fatal occurrences from my composition used in liniments, but these were accidents. What I recommend to a customer who is tired of wife, family and home, is to take out good large life and fire policies, pack up as many valuables as a fish basket will hold, give one of my patent stoves as a birthday present to his wife, and start off for his holiday outings. There need be no bother about the rate of premium paid for the insurances, as they have only to be paid but once.

It is warranted that this method is not only more economical than an appeal for a divorce, but will in every instance yield a large cash profit. But to get the quickest and surest return for an investment in one of my patent stoves, be certain to get the highest gravity of fuel. Yours to command, G. A. S. O'LENE.

TARIFF INCONGRUITIES.

Editor of CANADIAN MANUFACTURER.

SIR.—Allow me to occupy a little of your valuable space to ventilate a grievance felt by many engaged in several of the different trades in Canada. I refer particularly to the unequal and arbitrary provisions of the customs tariff, and to the manner in which this tariff has lately been interpreted by some of the Government officials. In bringing these anomalies to the notice of the public, I have no desire to raise captious objections or to raise any question as to the policy of which the present tariff is the natural outcome. I simply desire to point out anomalies that should be rectified in order that the tariff may be held to be devised for the good of the country. I think it will be conceded that our present tariff aims at protection, not at prohibition. Yet in the case of sago flour, a duty of two cents per pound upon an article that cannot be produced in this country, and which can be purchased at less than two cents per pound, means prohibition pure and simple. Why extracts of fustic and hypernic should be required to pay duty, whilst extract of logwood is admitted duty free, is a question so perplexing that I have ceased to try to find out its right or justice. Why quercitron, solid or in extract, should be admitted duty free for dyeing leathers, yet when required for dyeing cotton or other goods should have to pay duty, is another question quite as perplexing, especially as a certain dye called black dye is also admitted free of duty, which sometimes contains quercitron.

The Government lately announced that it was their intention not to alter in any way this year the tariff. Well and good; but this has not prevented their officials from making certain alterations on their own account. Sal soda has been admitted free, both in its ordinary form and also in a concentrated form, in which form it is now generally exported by the makers in order to save freight. Without any warning the concentrated form has been declared dutiable by some officials in the employ of the Government. Alum has been admitted and still is free; so was sulphate of alumina, which is alum in a purer form, yet without a word of warning the said officials have made it dutiable. Alterations like these do not appear in the debates in the House, but are just as much alterations of the tariff as if the Minister of Customs had proposed them to Parliament. Where is the sense of having a hard and fast rule that all unenumerated chemicals should bear a duty? In Europe many new chemicals are being produced every year, that are useful in producing certain goods. These chemicals are often used to replace chemicals which are on the free list, and cannot possibly be made in this country; but because they are not enumerated they have to pay duty and consequently are not used at all, to the great detriment of the trade of the country.

It may be troublesome for the officials at Ottawa to go into these matters, but life is full of trouble, and I suppose they are paid to bear their share of it. I am, yours truly,

A MANUFACTURER.

Manufacturing.

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

THE Ogilvie Milling Company's elevator at Boissevain, Man., was destroyed by fire June 1, loss about \$20,000.

MESSRS. C. B. WRIGHT & SONS, Hull, Que., have completed their new factory for the manufacture of Portland cement.

A SCHEME is on foot in Toronto to construct an electric tram road from this city to York Mills, a distance of about seven miles.

THE Tabor Felt Boot Company, of Fredonia, N. Y., contemplate starting a branch of their works in Canada, probably in Galt, Ont.

MESSRS. GALBRAITH & CAMPION, Vancouver, B. C., have recently made a trial shipment of 70,000 feet of square timber to Yokohama, Japan.

SHILLINGTON'S saw mill, at Hinchinbrook, was destroyed by fire May 30th, loss about \$2,000 for mill and machinery, and \$1,300 for lumber.

THE Laurie Spool Company, of Montreal, has been incorporated with \$15,000 capital stock for the manufacture of spools, bobbins, woodenware, etc.

MR. E. BORLAND, Tilsonburg, Ont., who makes a specialty of manufacturing road carts, turned out 500 of these rigs last year and will turn out 600 this year.

MESSRS. GUGGISBERG BROS., Preston, Ont., have recently made a large shipment of office furniture to a large linen manufacturing concern in Belfast, Ireland.

THE furniture factory of the Chambers' Wood Working Company, Truro, N. S., is contained in a two story building 100x80 feet, in which fifty hands are employed.

THE Manitoba Coffee and Spice Mills, Winnipeg, Man., are making an important enlargement of their works, and will begin the manufacture of starch from wheat.

THE Dominion Salt Works of Mr. Joseph Kidd, jr., Goderich, Ont., are now being operated to their fullest capacity, the annual production of salt being 50,000 barrels.

THE Mann Manufacturing Company, Brockville, Ont., have made arrangements for starting an American branch of their works for the manufacture of their seeders and harrows.

THE carriage works of Messrs. Vantuyl & Fairbank, at Petrolia, Ont., were destroyed by fire, June 11; loss, about \$15,000. The building was full of new wagons, buggies, etc.

THE Hartman Manufacturing Company, of Beaver Falls, Pa., recently made a steel mat for a Chicago hotel, forty-one feet long and four feet wide, the largest ever made in one piece.

THE Tide Flat Improvement Company, at Blaine, W. T., is piling in an enormous scope of the water front at Vancouver, and will improve the same by erecting a saw mill and shingle mill.

MESSRS. PARK BROTHERS & Co., extensive and well-known manufacturers of tool steel, are establishing a branch house in Toronto under the management of Messrs R. J. Griffith & Co.

THE D. M. Donald Fruit and Produce Company, Norwich, Ont., manufacturers of jams, jellies, pickles, etc., will enlarge their works. They give employment to about 130 hands during the busy season.

THE C. F. Smith Company, Belleville, Ont., is a new concern applying for incorporation, with a capital stock of \$50,000, for the purpose of manufacturing pieced and pressed tin ware, copper ware, etc.

MESSRS. BEARDMORE & Co., Acton, Ont., who have one of the largest cordovan tanneries in Canada, will make considerable

enlargement of their works and include the manufacture of harness leather.

MESSRS. HIRAM WALKER & SONS, of Windsor, Ont., have recently shipped a consignment of liquor to Honolulu and one to Yokohama, Japan. They have opened a large trade in South America, South Africa and Australia.

THE Canada Galvanizing and Steel Roofing Company, of Montreal, has been incorporated with \$50,000 capital stock for the purpose of manufacturing galvanized steel, metal roofing and general metal working.

THE Ontario Pump Company, of Toronto, are offered inducements to remove their works to Peterboro', Ont. The offer made includes \$650 a year in money and exemption for ten years, provided employment is given to thirty-five hands.

THE Copper Cliff Company at Sudbury have just sold 600 tons of nickle, and two more smelters are to be introduced. The Stoby mine is being opened, and operations are being pushed in the township of Dennison by the Dominion Mining Company.

THE Hamilton Powder Company, of Montreal, will build a powder factory at Northfield Mine, B. C., and will manufacture various kinds of explosives, including black powder and dynamite. They have acquired a considerable tract of land from the Vancouver Coal Company, and the work of clearing will commence as soon as possible.

THE Canadian Pacific Railway Company will, it is said, establish large extensive car works at some convenient place in the State of Maine on the line of their road, hoping thereby to evade the possibility of any interruption to their traffic by using American built cars.

THE Sulphite Fibre Company, who already have extensive works in Detroit, Mich., for the manufacture of paper clothing—undershirts, undervests, drawers, etc., and bed sheets, blankets, etc., will establish similar works at Port Huron, Ont., where about 100 hands will be employed.

A VALUABLE discovery of anthracite coal has been made at Cheticamp, Cape Breton, and on trial is said to have proved of excellent quality. One hundred barrels have been sent to England for analysis, and if it turns out as expected the mine will be at once developed to its fullest extent.

MR. FREDERIC NICHOLLS, of the Toronto Permanent Exhibition of Manufactures, who is the sole manufacturer in Canada of the Batten patent balcony fire escape, announces that he is prepared to also furnish straight iron escape ladders. The article is well made and the prices very moderate.

MESSRS. J. T. WESTON & Co., Tilsonburg, Ont., manufacturers of stoves, etc., are doing a fairly active business. Their works include one building 104x40 feet, another 80x24 feet, and a two-story brick 90x24 feet. They employ about thirty-five hands, their specialty being Acorn cooks.

THE Sault Ste. Marie Water Power and Electric Light Company, of Sault Ste. Marie, Ont., have bought a water power privilege of thirty-eight acres at that place from the Ontario Government, for \$29,000. The company is that in which Mr. James Conmee, M.P.P., is largely interested.

THE Dufferin Tent and Tarpaulin Company, Orangeville, Mr. Kenneth Patullo, manager, are manufacturers of flexible improved horse and wagon covers, tents, awnings, horse knee-wraps, aprons, etc. They make a specialty of lawn and sporting tents, for which at this time there is a strong demand.

THE municipal council of the town of Thorold, Ont., have resolved to aid the Niagara Casket & Coffin Company (limited) by granting to said company the sum of \$12,000 by way of bonus, on condition of such company establishing a manufactory of burial caskets and coffins and undertakers' supplies in the said town.

A NEW industry is about to be started in Windsor, N.S., which will be the only one of the kind in the Maritime Provinces. It is that of the manufacture of every description of rattan goods, embracing children's carriages, fancy chairs and rockers, parlor, drawing room and library suites, rattan work for carriage builders' use, etc.

THE Preston Carriage Company, Preston, Ont., is a concern that came into existence last year, an account of which appeared in these pages at the time. Since then the company have erected a suitable factory which is now in successful operation. It is three stories high, 100x40 feet, with annex 26x24 feet, well supplied with best new machinery.

MESSRS. GANONG BROS., St. Stephen, N.B., manufacturers of confectionery, etc., whose factory was some time ago destroyed by fire, are pushing their new works to completion, the expectation being that they will be ready for occupancy about July 1. When completed Messrs. Ganong claim that they will have the largest and best factory of the sort in Canada.

THE works of the Dominion Bridge Company, at Lachine, Que., near Montreal, are now full of work, employment being given to about 300 hands. The principal work they have in hand are the Coteau bridge, to span the St. Lawrence River at Coteau Landing, and several important bridges being built for the Dominion Government, to go to Cape Breton.

THE Mowat Manufacturing Company, Whitby, Ont., manufacturers of agricultural implements, occupy a number of commodious buildings, the main one covering an area 120x50 feet, and moulding shop 50x40 feet, employment being given to 75 hands. Their specialties include the Clokey centre cut mower, the Whitby twin-plow, and the Raymond food grinding mill.

THE Preston Woolen Mills, at Preston, Ont., of which Messrs. Robinson, Howell & Co. are proprietors, and Mr. George Pattinson manager, is one of the largest and most important manufacturing concerns in Canada. The buildings are of stone, three stories high, contain 2,500 spindles and 45 looms, give employment to 150 hands, and produce 450,000 yards of cloth annually.

THE Windsor Foundry Company, Windsor, N.S., call attention to the improved apparatus manufactured by them for handling anchors and chains. This is done with fewer men, in less time and much easier than by any other arrangement, by the use of the Providence windlass manufactured by this company. It is approved by underwriters, owners, masters and builders of vessels.

THE factory of Messrs. Clare Bros. & Co., Preston, Ont., manufacturers of hot air furnaces, stoves, ranges, etc., is an important industry in that town. The moulding shop is 200x67 feet, machine shop 70x45 feet, warerooms and offices 100x45 feet, and one store-room 175x30 feet. The name, "Clare Bros. & Co.," on any goods manufactured by them is a synonym of good and effective work wherever seen.

THE construction of the new roller process flour mill at Pilot Mound, Man., will leave the old one unused for making flour, and as there is the building, stones and machinery, it would cost but little to turn the establishment into an oatmeal mill that would be both useful and profitable. Oatmeal sells at a higher price than flour, and there is always abundance of oats in the country to be had at a low price.—*Sentinel*.

MR JOHN ABELL, manufacturer of steam engines and boilers, agricultural and other machinery, etc., has just built for and shipped to the Royal City Planing Mills, New Westminster, B.C., a marine boiler 11 feet long and 9 feet diameter. It is of $\frac{3}{4}$ -inch steel plate in five pieces, and is rated at 500 h.p. It is fitted with the Cox corrugated flues, and is intended to be worked under pressure of 170 pounds of steam.

THE Dominion Wire Rope Company's works at Lachine, Que., include a substantial brick factory 150x50 feet, the power for which is derived from a 70 h.p. Corliss engine and a 100 h.p. Field-Stirling Safety boiler. The company possess some valuable patents and machinery for wire rope manufacture, which enables them to produce wire rope of different kinds second to none in the world for quality and durability.

MESSRS. FROST & WOOD, Smith's Falls, Ont., will celebrate the fiftieth anniversary of their business by a considerable enlargement of their works. They will build a large wing to the main building of their factory, which will be fully equipped with the best and most improved machinery, which will require the services of about 100 additional hands. Theirs is one of the most important agricultural implement factories in Canada.

THE Morrisburg Implement Works, at Morrisburg, Ont., of which Messrs. J. F. Miller & Son are proprietors, includes a 112x40 foot brick building three stories high, with iron roof, with two other buildings, one 60x40 feet and the other 40x20 feet, also all necessary storehouses and sheds. This business was begun in 1858, and now gives employment to over 40 hands, the specialties being mowers, disc harrows, plows, cultivators etc.

THE Canadian Pacific Railway car shops at Perth, Ont., have a large force of men at work building about 2,000 doors for grain cars and five derrick cars. These cars are worked by hand power, by windlass, but the mechanism is very powerful, being capable of lifting fifteen tons, so that with one of them a freight car could be

easily lifted on or off the track and a wreck cleared up in short order. The one already built and sent to Montreal has given great satisfaction.

THE tug *Active*, built by the Royal City Planing Mills Company, New Westminster, B.C., was launched last Thursday. The *Active* is claimed to be one of the most powerful tugs built in the Province. It is 120 feet long, 21-foot beam, and 11 feet 8 inches deep; engines are 300 horse-power. The machinery will all be modern. It is expected the *Active* will be a very swift tug. Mr. Patrick Desmond, formerly of Miramichi, N.B., planned and built the vessel.—Vancouver, B.C., *World*

THE Auburn Woolen Mills, Peterborough, Ont., has ten sets of cards, 3,200 spindles, and twenty-six Crompton looms. The company manufacture all-wool fine cassimeres and silk mixes, also a very nice line of Scotch goods. They consume 6,000 lbs. of wool per week, and find business first-rate; in fact, they have orders far ahead. The stocks they use are Cape and Australian wools. They have lately added to their well-arranged mill new and improved automatic sprinklers.

THE Truro Woolen Factory, Truro, N. S., manufactures yarn, homespun and cloth of an excellent quality for country wear. There are two buildings, each two stories in height. The cloth and yarn manufactory is 100x30 feet, and the knitting factory 50x25 feet. Cardigan jackets and men's underclothing are the principal articles made in the knitting factory, but some business is also done in stockings, socks, etc. Eight power machines are used, besides several hand machines. They employ about twenty hands.

THE axe and edge tool works of Mr. Peter Bertram, Dundas, Ont., were established in 1838, and though proprietorship has changed several times they have held a continuous reputation for turning out the very best articles in their line. The building is brick, 168x44, two stories, and has both steam and water power. Fifteen thousand dozen of axes are turned out annually, besides large numbers of broad and bench axes, adzes, picks, mattocks and crowbars. They also manufacture a high class of steel axe suitable for lumbermen.

THE process of welding metals by electricity, about which so much has been said lately, is about to be tried in practical mill work. The Thomson Electric Welding Company, of Boston, Mass., have sent one of their machines to the National Tube Works at McKeesport, Pa. This machine, which will be in operation within a few weeks, is to weld from 1-inch to 3-inch extra heavy pipe, within two minutes, and it is claimed that the interior surface will be left perfectly smooth and as strong at the weld as at any other part of the pipe.

THE Customs Department made the following decisions during the months of April and May: Bamboo curtains, as furniture, thirty-five per cent.; Horse boots made of leather, twenty-five per cent.; Lemon squeezers made wholly of glass, twenty per cent.; Paris White, dry, twenty per cent.; Patent carbon enamel, composed of Fusil Oil, etc., \$1.90 per gallon; Soap, "Hoxie's" Mineral, three cents per pound; Soap, "Adams" Mineral, three cents per pound; Stallion shields, made of leather, twenty-five per cent.; Wire ferules, iron, steel or brass, thirty per cent.

A SAMPLE of iron ore, discovered at Port Kells, about twelve miles above New Westminster, on the Fraser river, was left at this office yesterday. A specimen assayed by Dr. Bredemeyer showed 70 per cent. of iron and 2 per cent. silicate. The deposit is described as a very rich one and is owned by Mr. Hy. Kells and H. M. Stramberg, who have formed a company to develop it. The claim is situated within a quarter of a mile of the river on the Westminister Southern line of Railway, and the ore lies within a few feet of the surface.—Vancouver, B. C., *News-Advertiser*.

McMILLAN, KITTRIDGE & Co., refiners, of this town, have, without doubt, discovered the secret of thoroughly removing all the sulphur and impurities from our crude necessary for the production of a first-class water-white illuminant, equal, if not superior, to the best American article imported into this country. Since our last issue we have made a personal practical test of this brand, petroleum, and find it to be really all that is claimed for it. We burned it in an ordinary lamp for twenty-four hours, and found it perfectly free from any objectionable odor, incrustation on the wick, or cloud on the chimney. We bear this testimony, knowing the important effects of the discovery on the petroleum trade of Canada.—Petrolia, Ont., *Advertiser*.

MESSRS. FINLAY & SON, Norwood, Ont., manufacturers of hubs and bent wood for carriage and wagon work, are making considerable enlargements of their factory, and will include a new specialty—that of ready-made wheels. The new building in which this

SOME days ago a boat might have been seen on the Rhine, between Muhlheim and Deutz, sailing without any visible propelling power. The boat moved safely and smoothly against the stream, without a sail, without an engine, without even a stroke. In place of these the vessel was provided with an Otto benzine motor, manufactured at the Deutzer Motorenfabrik. The boat, which was invented at the works named, is of an ornamental character, and is $9\frac{1}{2}$ metres long, with a breadth of 2 metres. It is constructed to contain twelve persons, and is provided with a screw propeller. What, however, is novel and interesting in connection with it is the motive power; a benzine motor of 5-horse power, through which the noteworthy speed of three metres per second is attained. The machine can be immediately set to work; it requires no special heat; the motor gives out no heat or smoke; and the steam is led underneath. A relatively small space is occupied, and no special attendant is needed. In a small receptacle sufficient combustible material to last for some days can be placed, and the machine itself is supplied with sufficient to last for ten hours. Added to this it works without noise, and at a cost of only 20 pfg. per hour for a motor of 5-horse power. With all these advantages the Otto benzine motor may be considered an unquestionable advance (says *Kuhlows's*) as compared with the boats driven by steam power, with their important requirements in material and attendance. So far the trips have been performed swiftly, securely, and without any derangement. The boat makes trips almost every day, principally in Ruhrort dock. It is, we understand, intended to still further increase the speed of the little vessel — *Kuhlows's German Trade Review*.

THE Minneapolis, Minn., *Tribune* prints a story of the invention of a wonderful stove by J. H. Nevins of that place, in which he thinks he has found a way to save sixty-five per cent. of the fuel, and produce a better result than by the old way. It is a rather small, compact apparatus, and all kinds of fuel can be used in it. It is composed of two sections. In the first is the fire pot, and in the second the ovens around which, by a peculiar system of flues, the smoke is conducted and consumed. The draught is in the centre of the top of the fire pot, and the air is conducted through a fine screen by which it is broken up. In an ordinary heating apparatus, the great part of the heat passes out with the smoke through the chimney, but with this the smoke is conducted by flues and dampers through twelve feet of pipe before it goes into the stove pipe. Another purpose of the apparatus is ventilation. Air is taken up in a large pipe along the side of the stove near the floor, and conducted around the fire pot and heated, and thence to the top of the room and to other rooms in the same manner as a hot air furnace. This serves a double purpose, that of ventilating and heating, and it would be invaluable in the small household where but one stove can be afforded. The most wonderful thing about it is the way it holds the latent heat in the passages. During the sixteen months that Mr. Nevins has had his range in actual use, the fire in it has not been extinguished. He feeds it about twenty-four pounds of coal per day, and a hard coal fire can be kindled in it in the short period of twelve minutes, by means of a lower draught. In this apparatus, the lignite with which North Dakota abounds and which has heretofore been considered nearly worthless, becomes a valuable fuel.

HINTS FOR GASOLINE STOVES.

GASOLINE stoves should be cleaned out thoroughly once in a while, just the same as coal stoves or any other article. Even if nothing but good gasoline has been used and the best care taken in handling the stove, some little dirt will find its way into the pipes. Every stove should be cleaned thoroughly inside, as directed, once a year, or at least once in two years. The tank should also be rinsed out well when cleaning the stove.

The burner of a gasoline stove is made as accurately as a sewing machine or clock. The stove should, therefore, never be stored in a moist or dusty place. Do not put it where you would not put a sewing machine.

The valve and other parts should never be allowed to become rusty.

Never use water for cleaning any part of the stove—only gasoline.

It is not necessary to always burn the flame full force. By turning the flame down it takes a few minutes longer to do the work, but a saving of gasoline is effected.

The under side of the generator should be kept free from soot.

In baking, the oven must be thoroughly heated eight to fifteen minutes before putting in the dough. If this is not done the dough will dry out before the heat is strong enough to bake it. It will never bake after being dried out.

The best gasoline only is fit to be used in a gasoline stove. Bad, heavy gasoline will clog a stove without fail, and may necessitate its

being taken to pieces in order to clean out its passages. Bad gasoline, even if only used once, will affect the working of a stove, as the heavy parts thereof remain in the pipes until cleaned out.

Dealers in gasoline should be very careful to buy the best only. It is poor economy to save a cent or two a gallon by buying an inferior article.

If the gasoline does not look and smell right, do not sell, buy or use it.

Extreme care should be taken in drawing off the last few gallons of gasoline from a barrel. Any heavy oil, water, glue (with which the inside of the barrel may have been coated) or other impurities, are apt to settle at the bottom of the barrel, and are drawn off with the last few gallons.

It pays better to throw away suspicious gasoline than to use it.

Clean separate measures and cans must be used. Those used for coal oil should never be used for gasoline.

The gasoline supply should be kept in an airy place—not in the cellar.

The Standard Drain Pipe Co.

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INVERT BLOCKS

FOR BOTTOMS OF BRICK SEWERS.

These Blocks are made of Fire Clay, SALT GLAZED and VITRIFIED, and form the most perfect Invert known. Amongst their special advantages, they are indestructible perfectly smooth, affording the minimum of friction to flow.

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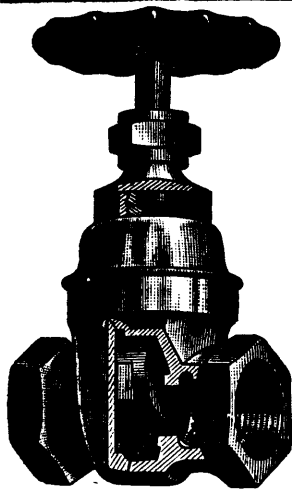
Windsor Foundry Company

WINDSOR, NOVA SCOTIA.

ELECTRICITY has been successfully applied for tempering watch springs and other forms of spring steel, whether in the form of ribbon or wire. The steel is wound on a spool, whence it passes down through a bath of oil. An electric current is sent through the wire, of such strength as to keep it at the proper redness to answer the desired requirements of temper. As the heating is not done in contact with the air, but is entirely beneath the surface of the oil, there is no trouble from blistering, as in the ordinary methods. The final temper is drawn in the same manner, and the wire or ribbon is finished by means of rolls. The process is also applied to a number of springs besides those for watches, including piano wires. In all cases the process can be controlled to a nicety, both as to the exact temper and its uniformity through the wire.

The Dominion Barb Wire Company, whose head offices are at Montreal, have a very large and valuable plant at Lachine, a few miles above that city. These works have been established about four years, and now employ 300 men, the pay roll amounting to \$10,000 per month. The wages run from \$1.25 to \$3.50 per day, most of the skilled labor being secured from England and the United States. The property comprises ten acres of land, situated on the banks of the Lachine canal, of which four and a half acres are under cover. The buildings are most substantially built of brick on stone foundations. The main building is 280x108 feet, in which are sixty-five wire drawing blocks, and twenty-four barb wire and fencing machines. Adjoining this building is one 102x36 feet, for storing partially completed wire, parallel with which is the annealing house, 84x48 feet, fireproof, where are five annealing pots and one larger baker, heated by three gas furnaces. Under the same cover is the boiler-house, 48x44 feet, containing a battery of five steel boilers of 75 h.p. each; also two Worthington duplex pumps, which draw water from the canal for all the works. At right angles with the boiler and annealing house is the large annealing muffer for annealing high grade wire, also the gas producer house, 66x44 feet of corrugated iron, which has four Wilson gas producers—capable of gasifying twenty tons of coal per day. These producers are connected direct with flues running under the floors to the annealing houses and boilers. At the ends of the main building and the annealing shops is the galvanizing department, a building 178x33 feet, containing two rows of galvanizing pans fitted with automatic reels and wire coiling blocks. These pans can each contain 40,000 pounds of

melted metal. Next to this building is a new extension 100x50 feet, erected last year, and used as a new annealing shop, where are six large annealing pots and one large baker heated by three gas furnaces. Adjoining this and opening into it is the cleaning house, also 100x50 feet. This cleaning house is fitted with two steam cylinder hoists and twenty cleaning tubs for cleaning wire. In this department there is used about twenty-five tons of sulphuric and muriatic acid per month, which is supplied by the Capleton Chemical Works, in special tank cars, from which it is elevated by an air compressor direct into a stationary tank, thence by gravity to where it is used. At the end of these shops is the rod-shed, capable of storing 1,000 to 1,500 tons of wire rods. This is facing the canal, and has switches connecting with the Grand Trunk and Canadian Pacific railways. During the past year there has also been added an L to the main building, a two story brick building with basement, which is being used as a storehouse for plain and galvanized finished wire. On the upper flat is the wire nail and diamond pointed screw factory, an industry lately added to the list of goods manufactured by the company, and for which there is a rapidly increasing demand. At the west end of the wire mill is the storehouse for barb wire, which will hold 1,000 tons, and so arranged that cars can run along side to be loaded direct. There are also on the grounds separate buildings used as a carpenter's shop, blacksmith's shop, furnaces for manipulating scrap, etc. The coal is conveyed from barges in the canal to the works, a distance of five hundred feet, by a Hunt patent automatic railway and coal hoist, by which two men can elevate and pile in the yard from 200 to 300 tons of coal a day. The engines used are one 250 h.p. Corliss, which operates the wire-drawing department; one 100 h.p. driving the nail and barb wire department; two of 30 h.p. each used in the galvanizing department, one hoisting engine in the annealing house, one Ball engine in the boiler house to supply blast to the furnaces, and the engine connected with the coal elevator. The whole of the works are lighted by electric light, supplied by a Ball twenty-five arc light dynamo, for which the service of an extra twenty-five h.p. engine is required. All of these engines were manufactured by Messrs. J. Lawrie & Br., Montreal. These works produce fifty to sixty tons of bright annealed, coppered and galvanized wire daily. About fifteen tons are manufactured on the works into fencing, nails and screws, the remainder being shipped to different points in Canada to merchants and other manufacturers.



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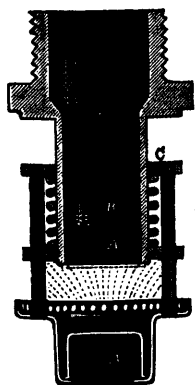
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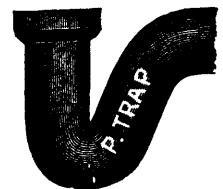


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Besides the natural advantages for Manufacturing Operations, the city offers inducements to parties seeking location, Exemption from Taxes, Free Site for Building, and Money Aid on certain conditions. Communications received by the undersigned.

D. B. ROBERTSON,

CITY CLERK.

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MONTREAL and TORONTO,

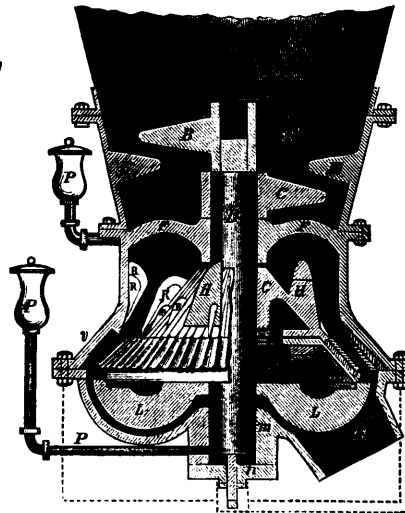
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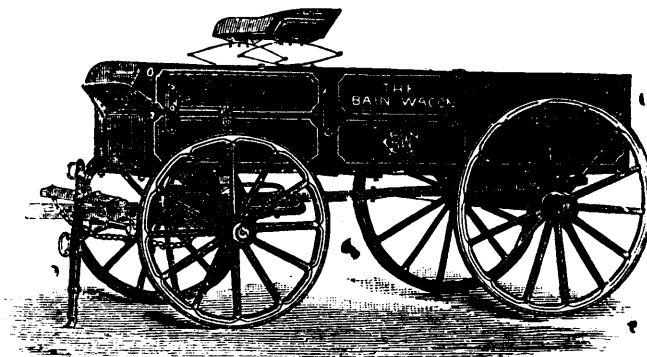
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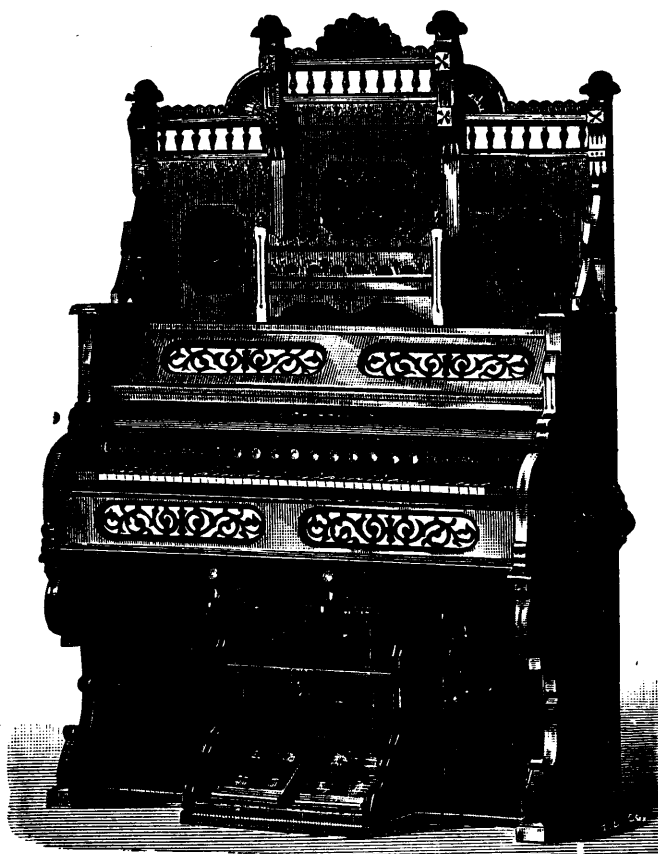
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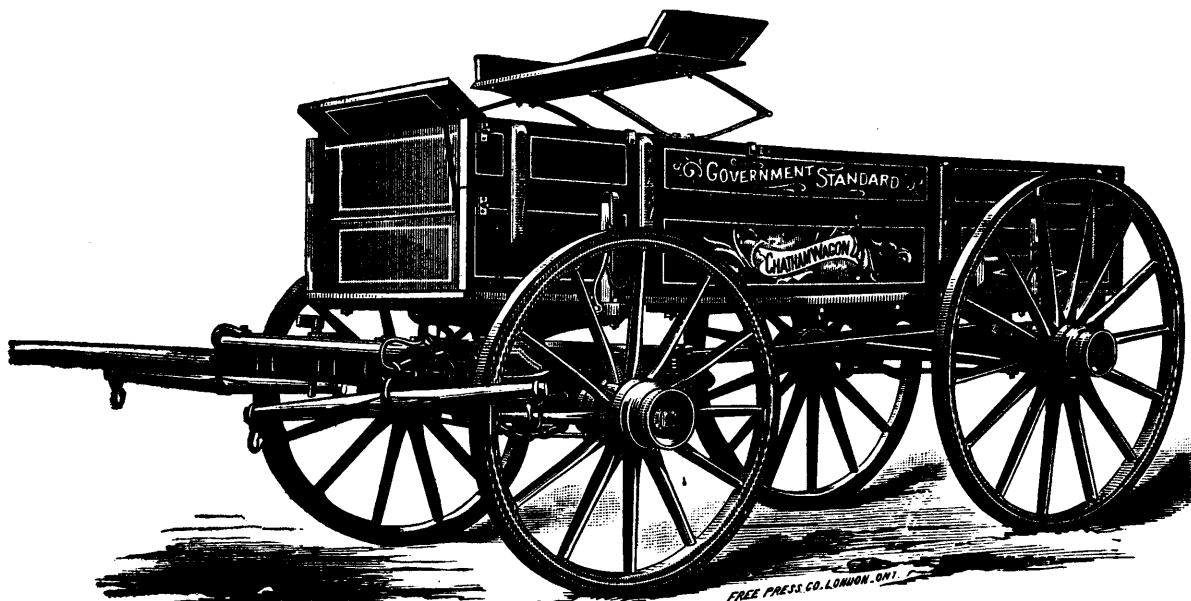
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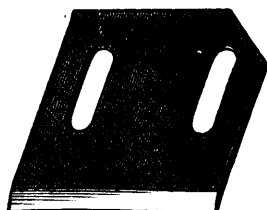
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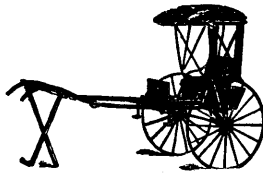
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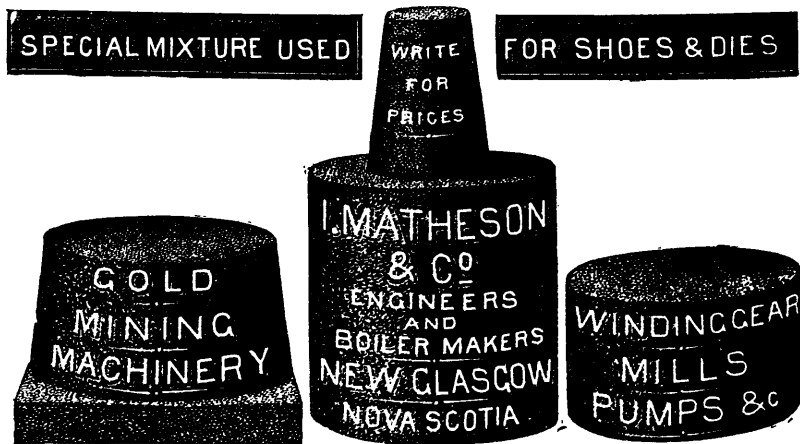
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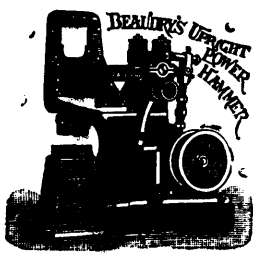
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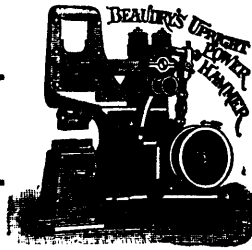
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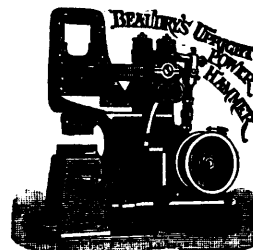
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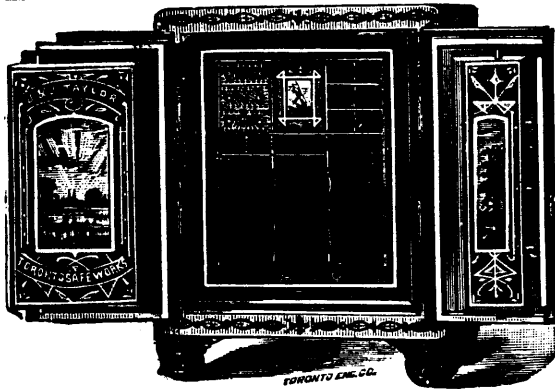


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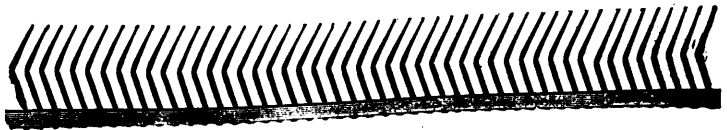
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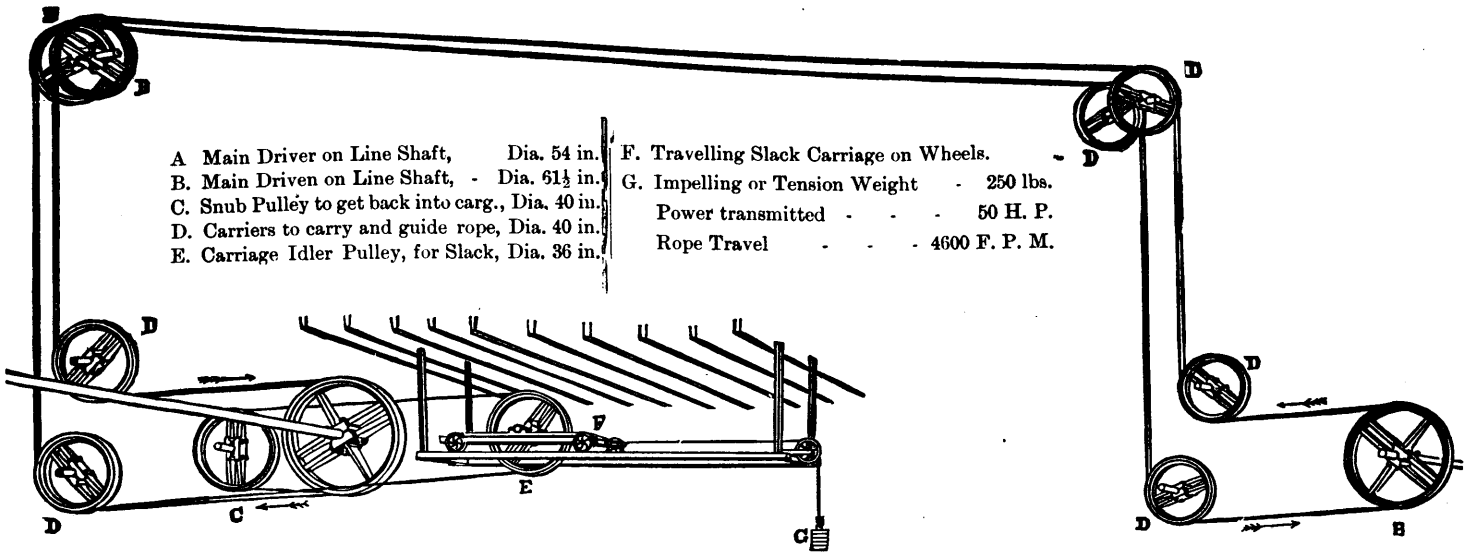
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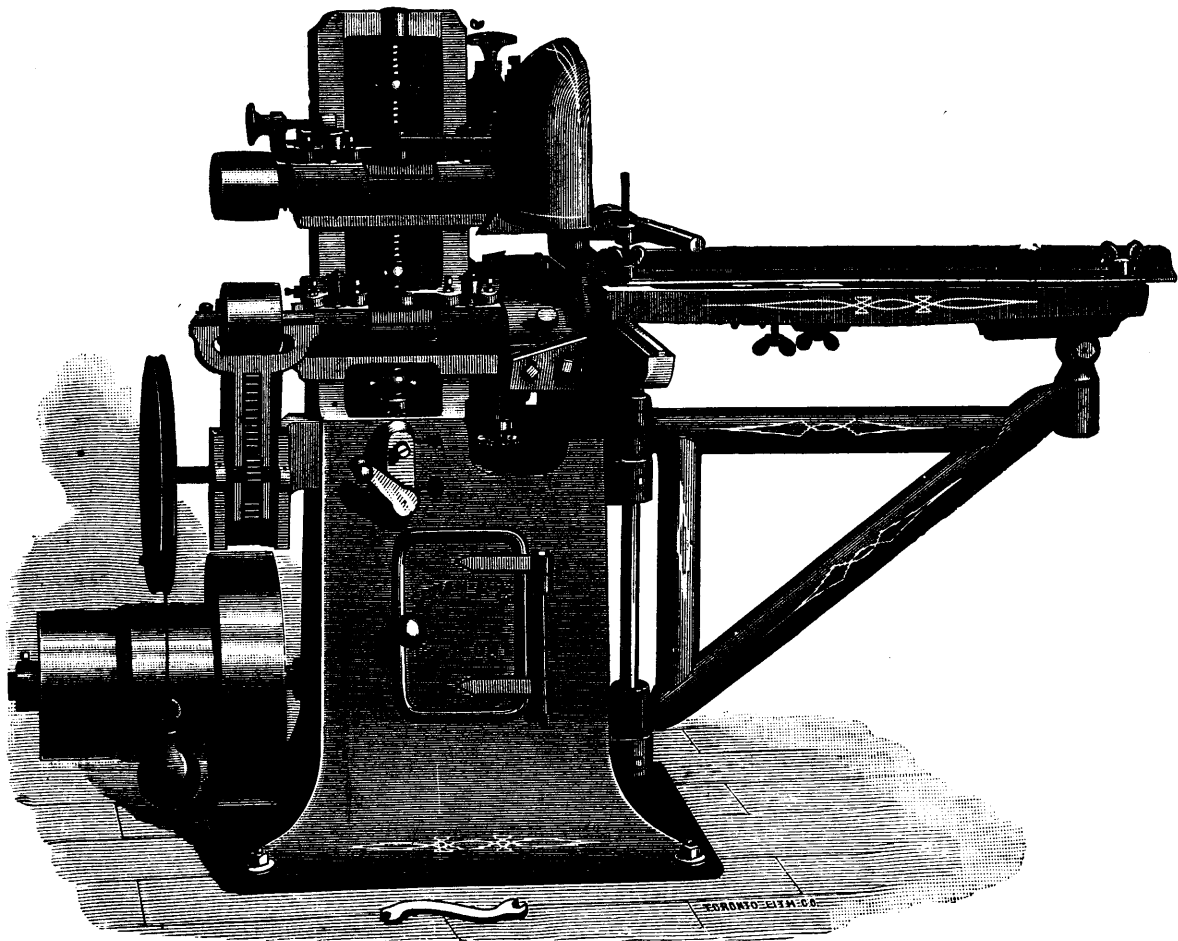
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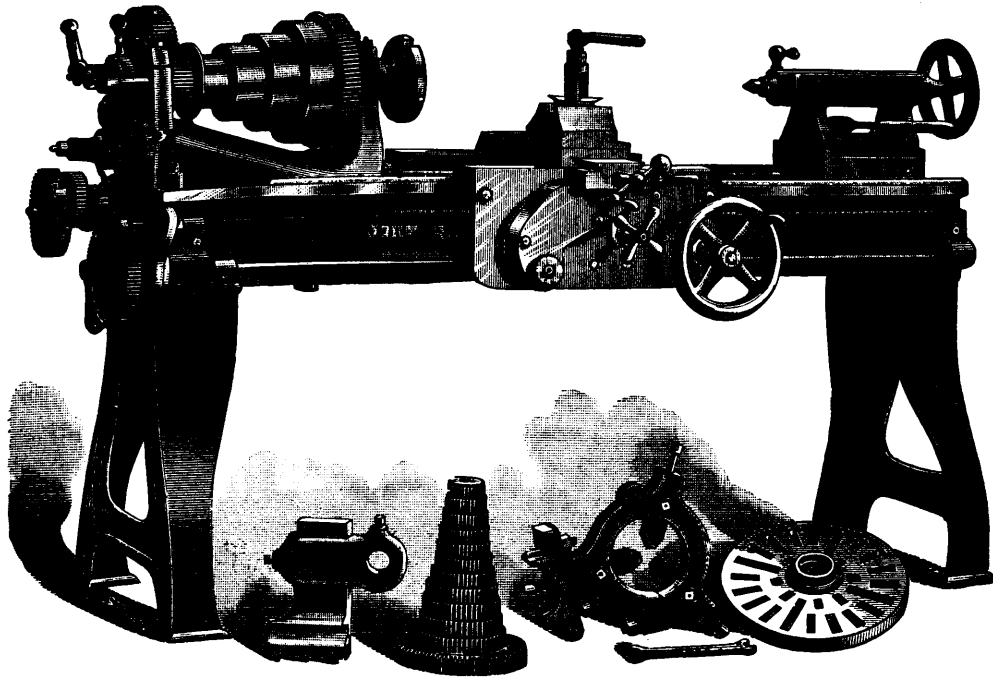
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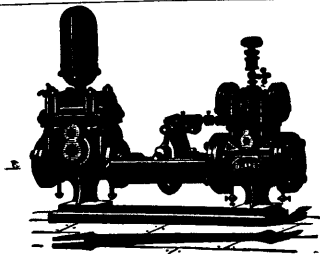
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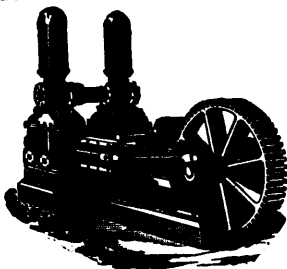
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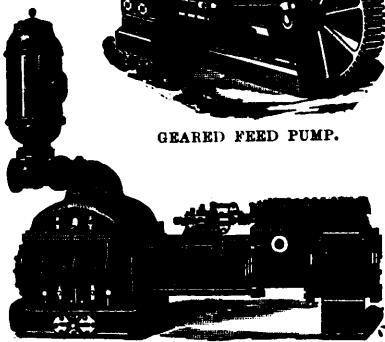
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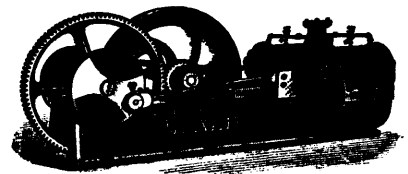


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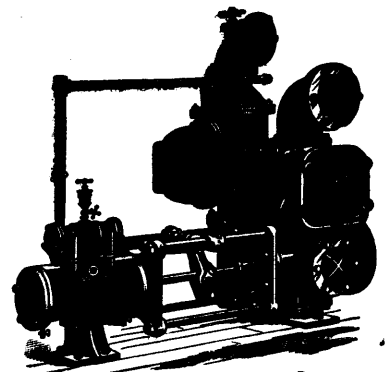
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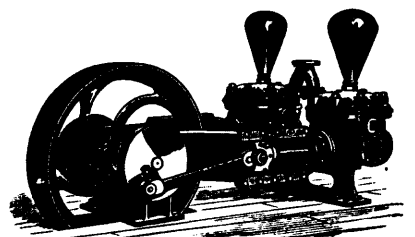
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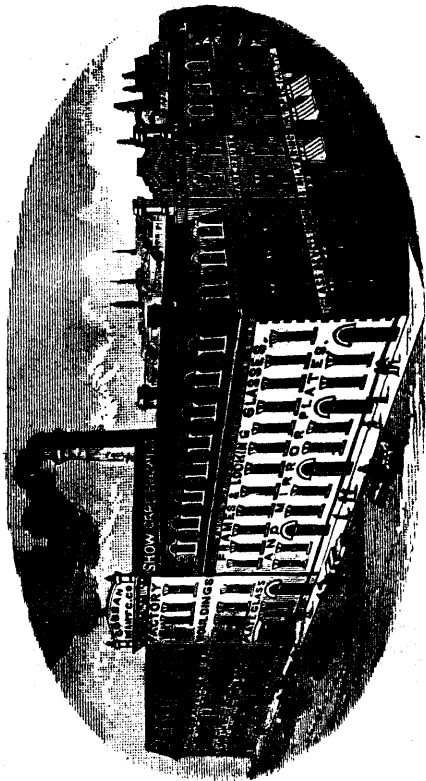
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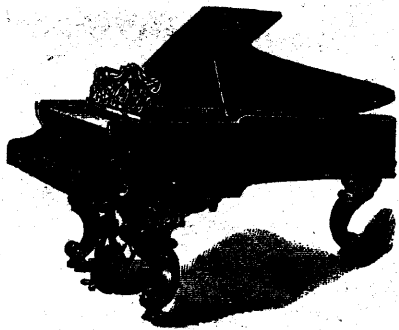
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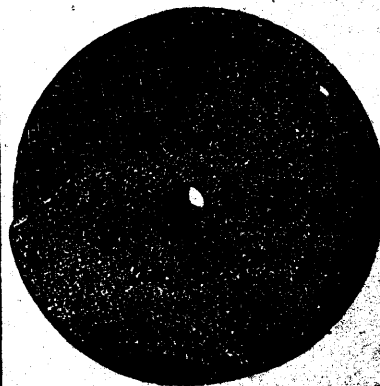
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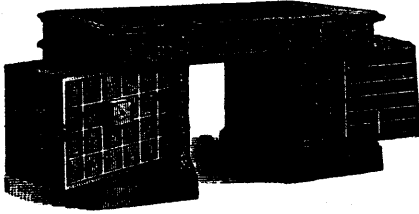
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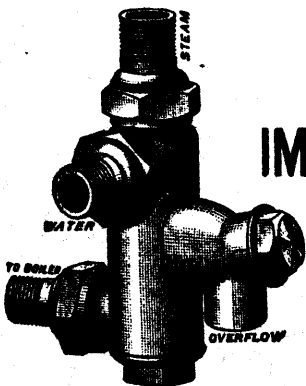
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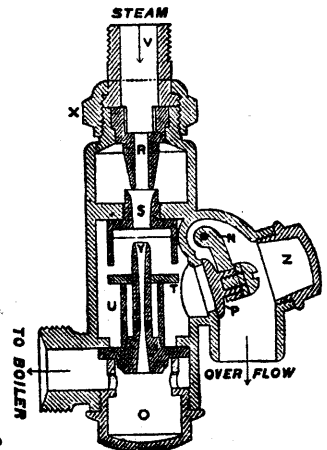
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