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SEE ADVERTISEMENT, PAGE 174.

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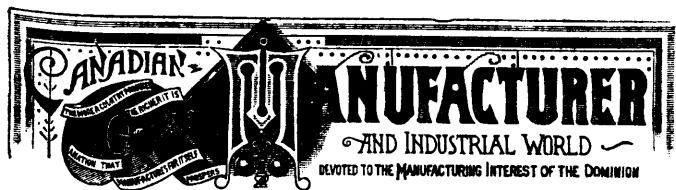
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TORONTO'S GREAT INDUSTRIAL EXHIBITION.

WE take pleasure in announcing that the Canadian Manufacturer's Association will occupy their accustomed office room on the Fair Grounds during the continuance of Toronto's Great Industrial Exhibition. All members of the Association and their friends, and manufacturers generally, whether exhibitors or not, are requested to make this their headquarters during the Fair; and all friends of the CANADIAN MANUFACTURER are invited to make use of the accommodations that may be there provided for them. The management of this Fair have made great exertions to make the affair even more interesting than any previous one, and from what we learn this desire will be very fully realized. The displays of machinery will be very large, and many mechanical novelties will be presented which will be exceedingly instructive. The amusement features have been well looked after, and they will be of such a character as to please even the most fastidious and exacting. Mr. H. J. Hill, the indefatigable secretary and manager, who has had quite a number of year's experience in the business,

has secured a large number and variety of novelties which he is sure will take immensely with the hundreds of thousands of visitors who will attend the Fair.

THE ETHICS OF PROTECTION AND THE SUGAR REFINING INDUSTRY.

It is according to the ethics of our National Policy that in considering any proposition to give tariff protection to any industry that that protection in favor of that industry should be considered upon its individual merits as a scientific proposition. It should first be shown that the article to which it is proposed to afford protection cannot be produced without protection, in competition with a similar article produced in a foreign country, where labor is very much cheaper; and it should also be shown that the industry may become of enough importance to the country to make the benefit of having it firmly established in the country greater than the duty imposed upon the foreign competition in the home market. These propositions being established, the amount of the duty to be levied under the tariff should be, as near as can be computed, the difference between the cost of laying down the foreign article in the home market and the cost of production at home. Protective duties should not be imposed simply because any particular interest desires to make unduly large profits, or because some other interest enjoys some measure of protection, or to unduly enrich any class of producers. Protection should be no bonanza to any manufacturer by which he may suddenly become a millionaire; but it should only afford him a fair and ordinary profit upon his investment and interest upon his capital. This being the case, the protection given to his industry should be distributed to those whose labor creates the wealth acquired in his industry. If protection assumes any other phase than these, and if it is distorted for other purposes, it becomes oppressive, and those who are favored by this distortion become oppressors and clogs upon the body politic. In such case the oppression must be removed, but the system of protection must be sustained. This is the true spirit in which to view protection: the principle of it must be maintained, and the upholders of it must recognize the duty of correcting all errors in its administration.

This journal is devoted to the upholding of the policy of protection in Canada; and in doing so it has taken occasion frequently to point out wherein what it has considered injudicious legislation has tended to afford the means of oppression and to bring the National Policy into disrepute. It is always anxious to detect and to correct any injurious workings of the tariff—as anxious to have the duty lowered where it is too high, as to have it increased where it is too low: and it has always esteemed it one of the greatest merits of this policy that it favors such changes by the Dominion Parliament as will lower or abrogate the duty whenever it is found that it is becoming oppressive in its operation, and whenever it is found that those whom it favors are taking advantage of it to extort unreasonable profits. Protection should never be made an engine of spoliation in the hands of greedy manipulators. This journal is not an attache of any political party, and adheres only to any party so long as that party upholds the National Policy, and administers it fairly and equitably. The National Policy came

into existence only through and by the united help of men who had been adherents of widely dissimilar parties, and who are united in sentiment on this policy, no matter how widely divided they may be upon other questions: and this journal owes allegiance only to the system of protection as it exists in Canada, and to the upholders of it.

In the caption of this article allusion is made to the ethics of protection and to the sugar refining industry. The first of these propositions we have discussed, and we turn to the second: and it is in what we believe to be the true spirit of protection that we discuss the sugar question. On previous occasions we have shown that while the Government have placed upon the free list all sugars under number 14 Dutch standard, imposing a duty of eight tenths of a cent per pound upon all other sugars, the people do not receive the benefit from this concession that they were led to expect, and that the Canadian refiners have it in their power to extort hundreds of thousands of dollars from Canadian consumers of sugar. We propose now to show how these refiners became millionaires, previous to the change of tariff.

Until very recently, both in Canada and the United States, the duties upon refined sugar were so much higher than upon raw that the refiners in both countries possessed a practical monopoly of the business, the difference in duty in their favor, after allowing for waste and cost of refining, being a cent a pound, or more. During the year 1888 the average price of granulated sugar in the United States was \$7.13 per hundred pounds, while the average price of fair refining sugar there, duty paid, was \$5.05, the average difference between the two qualities being \$2.08 per hundred pounds. In a recent article in the *London Economist*, it is stated that "the whole margin in cost between raw and refined sugar, calculated upon the difference between the import price of the raw and the average import price of the refined article, cannot be put at more than 2s. 9d. This is believed to be an excessive estimate, the margin in a great deal of the refining probably being much less." This difference in London of 2s. 9d. per cwt. is equal to about 59 cents per 100 pounds in our currency. Badly as American consumers were fleeced by their great Sugar Trust, the case in Canada was much worse, although the duty on sugars were much lower in this country. In Canada the duty upon refining sugar imported from country of production was from \$1 per 100 pounds for 70° polariscope test, up to \$2 for 100°, or absolutely pure sugar. When not imported direct from country of production, an additional duty of 7½ per cent., ad valorem, was also charged. In the United States the duty upon refining sugar ran from \$1.04 per 100 pounds to \$2.40 per 100 pounds, according to quality. During the year ended June 30, 1887, the quantity of sugar entered for consumption in Canada for refining purposes was 190,992,336 pounds, valued at \$4,594,120, the duty paid upon which being \$2,987,737, an average of 1.564 cents per pound. The amount of duty which would have been paid on this quantity of sugar imported into the United States under the then tariff of that country would have been \$3,560,600, an average of 1.864 cents per pound; the difference in favor of the Canadian refiners being \$572,863. With this very large difference in favor of Canadian refiners over their American competitors, Canadian consumers had good reasons to expect that refined sugar would be cheaper in

this country than in the United States, but it was not. Taking the fortnightly quotations during the year ended June 30, 1887, and we find that the average price of granulated sugar in Toronto was \$6.38 per 100 pounds, while in New York the average price was \$5.84, the difference in favor of the latter city being 54 cents per 100 pounds. At the same time the average price of yellow sugar in Toronto was \$5.44, and in New York \$4.35, the difference in favor of New York being \$1.09 per 100 pounds. Admitting that the quotations in New York were for larger quantities than in Toronto, and that allowance should be made for freight to this city, commissions, etc., surely the difference of duty in favor of the Canadian refiner—over 30 cents per 100 pounds—should balance and offset these items: and the facts which are here given are ample evidence of excessive overcharges on the part of the Canadian refiners. There was no relief to be gained by Canadian merchants from this extortion by importing refined sugar, for the tariff was so framed as to prevent it. There was a specific duty of 1½ cents per pound upon the article, which was about the same as the average duty upon the raw, and with an additional ad valorem duty of 35 per cent., and a still further duty of 7½ per cent. upon imports from countries—Great Britain, for example—where sugar is not grown. These duties of 35 per cent. and 7½ per cent. enabled Canadian refiners to charge consumers from one to two cents per pound more for their product than a fair profit for refining.

In June of the year under discussion the *London Economist* gave the following quotations for different kinds of sugar, f.o.b., at European ports:—German beet sugar, 25s. 6d., @ 25s. 9d. per cwt.; superior Dutch crushed, in bags, 26s. 3d.; fine French loaves, 26s. per cwt. At that time the Canadian duty upon beet sugar, 88° quality, was \$1.60 per 100 pounds. The waste in refining varies from 6 to 10 per cent., but a portion of this is recovered in by-products, and a duty of \$1.75 per 100 pounds upon loaf or superior crushed sugar would be required to offset the duty of \$1.60 upon raw. Under a strictly tariff for revenue only—a duty of \$1.75 per 100 pounds upon these refined sugars—they would have cost, if imported at above quotations, delivered in Toronto, about \$7.85 per 100 pounds, while, according to the market reports published in the *Empire* of July 4th, that year Toronto prices were:—For Paris lump, \$10.12½, and for granulated, \$9.62½, @ \$9.75 per 100 pounds. The difference in what would have been the cost of foreign sugars laid down in Toronto under a strictly revenue tariff, and what the market quotations here actually were, shows the extent of the profit enjoyed by the Canadian refiners. If the figures are not too deceptive, during that year the profits to the Canadian refiners, who employed less than 700 hands, must have been about \$4,000,000.

In summing up, we are forced to the conclusion that, as regards the sugar refining industry as it existed in Canada up to the recent change in the tariff, the duty in its favor was not offset by any benefit bestowed upon the people by it; that it did not furnish its refined sugar at or near the difference between the cost of production and the cost of laying down foreign sugar; that the tariff was a bonanza to the refiners; that it enabled them to exact more than a fair profit for their services; that they were extortioners, and that through the tariff they became millionaires. In these respects the tariff

proved to be what it should not be, and produced most injurious results.

Was it a realization of these facts that induced the Government to put low grade refining sugars upon the free list? If it was, surely they must have discovered the facts here pointed out, and also have considered the other fact that the new duty upon refined sugars is so high that even now the refiners have the opportunity of exacting hundreds of thousands of dollars out of consumers, over and above a fair profit for their services; and we insist that these blemishes upon the National Policy must be removed.

THE RED PARLOR.

[The following notice appeared in THE CANADIAN MANUFACTURER of June 9, 1882.]

In response to a circular letter from Sir John A. Macdonald, a largely attended meeting of manufacturers was held at the Queen's Hotel, Toronto, on Tuesday afternoon. Mr. R. W. Elliot (of Elliot & Company) Toronto, was called to the chair, and Mr. A. C. Kelly, junr., (of Booth & Son) Toronto., was appointed honorary secretary. On the subject of the National Policy and its relation to the prosperity of manufactures, and of the country generally, the meeting was addressed by Sir John, Hon. D. L. Macpherson, and Mr. J. B. Plumb. After a hearty vote of confidence in the present administration had been passed, these three gentlemen retired, and the meeting appointed a committee to set before the electors of Ontario the advantages that have already resulted from the National Policy, and the still greater advantages that will follow if that policy be preserved and is firmly maintained.

The following are the names comprising the committee:—
 Toronto: Joseph Simpson, E. Gurney, junr., O. Wilby, R. W. Elliot, George Booth, Samuel May, W. Heintzman, W. Hamilton, W. Dixon, J. Dixon, D. Lamb, Thos. Hutchinson.
 Hamilton: James Watson, L. H. Brooks, John Milne, Jas. Stewart, R. M. Wanzer, James Young, J. H. Killely, E. Gurney, sen., M. A. Kerr. Galt: Adam Warnock, David Spies, R. Blain, H. McCullough. Guelph: J. B. Armstrong, C. Raymond, W. Bell. Dundas: R. McKechnie, John Bertram.
 Almonte: B. Rosamond, A. Elliott. Paris: D. Brown, —
 Adams. Bowmanville: G. Piggott, J. Wesley. Streetsville: R. Barber. Markham: Jas. Speight. Glen William: —
 Williams. Georgetown: J. R. Barber. Newmarket: J. Nelson Gorham. Merritton: John Riordan. Cobourg: W. Rosamond. Acton: W. H. Storey. St. Catherines: Wm. Chaplin.

This was the modest announcement of one of the most important political meetings that ever occurred in Canada. It was not, however, composed of politicians, in fact no politicians were present or took part in it. It was composed of men who as manufacturers, had risen superior to any politics, and who, individually, were or had been affiliated with both the political parties then existing in Canada. They had been drawn together by the great bond of love for Canada and a desire to see her the great self-sustaining manufacturing country that they felt she ought to be. The National Policy was then in the earlier stages of its existence. The far-seeing ken of that great statesman, Sir John A. Macdonald, had brought it into being, and its enemies were using their utmost means to destroy it. Under it large numbers of manufacturers had been induced to invest their wealth in industrial enterprises, the tall chimneys of which were rearing their smoky tops thoroughout the land, and now their great captain, like the faithful watchman he was upon the walls of the citadel of Canada's

most precious interests, had warned them of the approaching danger, and had rallied them in council to devise methods by which the machinations of the enemy were to be frustrated and the National Policy more firmly established than ever. How sound the advice given to this band of Canadian manufacturers by Sir John A. Macdonald was; how promptly they acted upon it, and what great results flowed from their action is now history. The captains of Canadian industry who composed the committee did their work well and nobly, and Canada has good cause to perpetuate their names and record their heroic deeds. Since that memorable meeting in June 1882 some of these representative men have gone down in the fray and battle of life, but most of them are yet strong, active, vigorous fighters in the upholding of Canada's National Policy of protection, illustrating in their successes in life the sterling worth of their individuality and the benefit that policy has been to them. The enemy continue to wag their heads and gnash their teeth now even as they did then, and revile and persecute as bitterly; but the nucleus of earnest men who assembled around Sir John that glorious June day in 1882 has increased to a powerful army. Under the folds of the banner of the National Policy no politics is known or discussed other than such as bear directly upon that policy; and in this lies the strength and invulnerability of that army. *In hoc signo vinces.*

THE MCKINLEY TARIFF IN EUROPE.

THE London *Times*, in a recent issue, commenting on the Board of Trade returns, says:

The returns are unsatisfactory. The decline in exports is distributed over the whole list. The McKinley law has been the great cause of the disturbance. The prospect of the law last year swelled exports to the United States while those markets were still open. English merchants and manufacturers availed themselves of the outlet, and were met with equal eagerness on the part of America to buy at lower rates. "The McKinley law, now in force, has had the effect expected and intended. Our exports to the United States have decreased under several headings, and although they have advanced under other headings this advance is not sufficient to balance the general trade loss. The figures for July are, therefore, lower than they otherwise would have been, and they compare unfavorably with the time when the exports were abnormally large.

The *St. James Gazette* thinks the outlook for the manufacturing interests of Great Britain is exceedingly unfavorable. It says:

Judging from the returns issued by the Board of Trade, it looks as though we have already reached the end of good times. The great decline in the exports from Great Britain is undoubtedly due to the operation of the McKinley law in the United States. We have been told that that Act would eventually prove a real misfortune to the United States, but its immediate object was to hit foreign manufacturers, especially those of Great Britain, and it is plainly evident that this object has been attained.

The *Pall Mall Gazette*, in an article on British trade, gives as a further evidence of the declining trade of the country the great decrease in the freight traffic in England and Scotland. "Each week of the present half year," it says, "has shown diminished receipts as compared with those of the corresponding period of last year. The current week's receipts are the smallest of any week of the half year, and show a decrease of

£4,000 compared with the corresponding week in 1890. The total decrease for six weeks is £56,000.

Owing to the depression in the iron trade operations at many of the principal iron works in the Cumberland district have been suspended for some time past, and the inability of the workmen to procure employment is causing the most acute distress. Six thousand men have been thrown out of employment by the stoppage of the works, and a large number of them have earned nothing for a year. Many families have struggled along hoping for better times, but hope of the works again starting up has been abandoned now, and the outlook for the coming winter is of the gloomiest nature. The families of the iron workers, men, women, and children, all show traces of the privations they have suffered through the enforced idleness of the bread-winners, and it is an absolute fact that hundreds of them are on the verge of starvation. So serious has the situation become that the authorities have decided to start public works to give employment to the many idle men in the district and thus avert the starvation which is threatened.

For the purpose of studying the actual effects of the McKinley law, as far as they could show themselves since the law became operative, the Associated Press correspondent recently visited some of the most important industrial centres of Germany, such as Leipsic, Chemnitz, Plauen, Greiz, Nuremberg, and Frankfort. All reports agree that the measure has had a paralyzing effect upon certain industries.

Of all the industrial centres in Germany, perhaps in Europe, Chemnitz, in Saxony, and the district surrounding it have suffered most. The principal industry is the manufacture of knitted goods, especially of hosiery. There are 250 manufacturers of hosiery in the city. Many thousand skilled workmen employed in the "house industry" depend upon it for a living. The McKinley law came and trade languished.

Many Chemnitz manufacturers say that the present dullness is only a consequence of last year's overproduction. But if the tariff is not reduced they fear that in the future they can not manufacture at a profit, and that factories springing up in America will deprive them completely of the trade. One of the largest manufacturers said that he had sent a number of his best young men to America to initiate them into American business ways, as he thought seriously of putting up a factory in the United States.

It is the "household industry" people, the poor, who suffer. The Associated Press correspondent visited many of their homes while in Chemnitz. In every house there were one, two, or three looms. Their earnings at present average from \$1.50 to \$2 a week. One of them, a man with a wife and four children, was asked how he managed to get along. "Well, we don't," he replied. "Most of us had something laid by from better days. We used that up. We still have our looms left, which are worth \$250 to \$300, but if we should mortgage those the end would be near. Things cannot last much longer this way."

These people live almost entirely on potatoes and rye bread. At the present high prices of food staples in Germany they get scarcely enough of these. There is some movement on foot to induce these people to emigrate to America and to establish their industry there.

Plauen, in Saxony, is the centre of a great manufacturing

district. Woollen dress goods are the main article of exportation. The largest firm is Arnold & Sons, which employs nearly 2,000 hands. Mr. Arnold said he had foreseen the present trouble, and had so managed his affairs that he had other countries to rely upon for his trade—Russia, Austria, and the Balkan countries. He had established a factory at Passaic, N. J. He said that the duty makes up for the increased wages he has to pay there. Other manufacturers were not so well satisfied. Their trade was almost ruined, they complained.

At Nuremberg and Furth the main staple of export is plate-glass. This branch of trade is beginning to feel the influence of the McKinley law, but so far not to a great extent. No disposition is manifested at either of these places to transfer the manufactures to America.

Breslau, the largest consular district, geographically, in the German Empire, does not seem to have been affected by the McKinley bill. The wages of the workmen have not been affected because they were already so small that they could not be lowered. This is the district where the weavers and other working classes are in constant danger of starvation.

UNDESIRABLE IMMIGRATION.

A NEW YORK contemporary blandly talks of the possibilities and responsibilities of American life in connection with the present policy of restricting immigration. It is fine talk, but entirely beside the issue. The truth is that the United States labor market is now in a very congested state despite what the McKinley Act and the Alien Labor law have accomplished in the way of easement in certain industries at the expense largely of the British laborer's welfare. But no relief has been afforded to dozens of trades. Take tailoring, for instance. "Sweating" is more an evil in Chicago to day than it ever was in London, all conditions considered. The *Chicago Tribune* asserts, and what is more, proves that pantaloons are made at six cents a dozen. There is no mistake about it. "Seams sewed, bottoms hemmed, buttons on for half-a-cent a pair." These things are among the modern responsibilities of American life, but the intending immigrants who try to evade the regulations have to come to the country in order to find them out.—*Toronto Empire*.

There is no doubt that the labor market in the United States is in an exceedingly congested condition, that is, in certain trades, and that much misery is resulting therefrom, and it is because of this unhappy condition that the American Government are endeavoring to restrict that class of immigrants who but add to and intensify the congestion. Time was when the immigration into the United States was of a very desirable character. It was chiefly from Great Britain, Ireland and Germany, and the location of the people was generally upon western farms, where the land was fertile, and to be had almost for the asking. This class of immigration has almost entirely ceased, and in its stead steady streams have been pouring in from Russia, Italy and Eastern Europe, the individuality of the immigrants being exceedingly objectionable. Instead of seeking homes on farms they decline to go outside the larger cities, and never having been accustomed to any but hard labor, long hours and infinitesimal remuneration, they have been steadily and surely crowding out of employment all who were not inclined to work for starvation wages. This condition is quite truthfully depicted in a press telegram from New York a few days ago, in which it was

stated that within a small area in that city there were 170 families, aggregating probably a thousand souls, who were starving for food and without any of the comforts of a home. These were the families of striking tailors and coatmakers, who could not possibly exist upon the miserable pittance which the sweaters were offering for their services.

The *Empire* approvingly quotes an article from the *Chicago Herald*, a rabid free trade journal in which it alludes to a certain plank of the platform of the Republican party of Pennsylvania which endorsed the McKinley tariff as being in conformity with the national pledge to protect the interests of American labor, and which had already brought about and would continue to bring about more settled prosperity to all classes. The *Herald* denounced the McKinley tariff as being against the interests of labor, declaring that there were "no words in the English language adequate to the fitting characterization of the conduct of the infernal scoundrels who," in the face of the facts regarding the suffering in New York, Chicago and other cities, "continue to deceive by their mocking laudations of McKinleyism."

If Mr. McKinley or the Republican party are responsible for the wholesale immigration into the United States of the Russian Jews and other offscourings of the old world whose presence has brought about the deplorable condition existing in some American cities, the tirade and blackguardism of the *Chicago Herald* and the quasi endorsement of it by the *Toronto Empire* might be condoned: but in view of the fact that the Republican party, as represented in the American Congress have done and are doing all they can to check the evil, the vulgarity and abuse heaped upon it can but remind us of some of Sir Richard Cartwright's elegant speeches in the Dominion House of Commons. The bitterness of the language is its own antidote.

The condition prevailing in some American cities as regards these foreign paupers is simply awful. Mrs. Annie Besant, writing to the *London Star* of some of her impressions of the United States, says:

I spent some interesting hours tramping about New York slums, contrasting in my mind the terrible poverty with the little less terrible wealth found within the limits of the same city. The misery I saw was chiefly foreign—the streets and houses were filled with Germans, Polish and Russian Jews, Italians, Irish—hapless seekers for the riches that lie at the end of the rainbow where it touches the earth. The public schools of the district told the same story, scarcely an American child being found among the dark-eyed, dark haired little ones, who have to be taught the language of their adopted country ere their ordinary education can commence. It is a complex problem which has to be worked out on American soil, this shooting down of foreign waifs and strays into a country which so quickly admits them to full rights of citizenship—the fragments broken by British and Continental oppression used for the building of a country that should be noble and free. The steps of the "Nemesis which dogs the heels of crime" may be heard all over the civilized world, the citizens of to-day reaping the harvest they sowed so long ago. When and of what nature shall be the garnering?

The fourth annual report of the New York State Board of Mediation and Arbitration, speaking of the sweating system as practised in the city of New York, made special mention of the manufacture of certain articles of clothing in that city, principally cloaks, shirts, pants, etc., by a class of foreigners of several nationalities, few of whom speak the English lan-

guage, and nearly all of whom labor like slaves from twelve to eighteen hours a day, receive a miserable pittance and live in great squalor. The number of both sexes and all ages engaged in this work is estimated at from 60,000 to 70,000. The chief cause of the degradation of this class of labor is to be found in what is known in the trade as the "sweating system," which is carried on by contractors or middlemen. These contractors are generally of the same race and nationality as their victims. They live and have the garments made in the shabbiest and most wretched of the tenement houses of the city, which are destitute of proper light, ventilation and accommodations. Into these tenement apartments they crowd the horde who serve them in making the articles for which they contract at fair prices with the manufacturers. It is difficult to find, and hardly possible to imagine, greater wrong or more degradation than is suffered by these working people at the hands of the "sweaters." Under existing statutes and circumstances there is no measure of relief at hand.

If this is the condition in the United States under protection, it is quite as bad in England under free trade. A staff correspondent of the *London Times* goes so far as to assert that in London the Russian Jews are actually held in slavery and bought and sold as slaves; that in the East-end of London a market is held every Sunday, at which Russian Jews are disposed of to purchasers. "Of course," says the writer, "a man is not sold in a fashion clearly agreed upon; but these men, driven out of Russia and wandering from place to place without a home or resources, reach London knowing neither the town nor the language, nor any living person. There they become the prey of a man who is an actual slave dealer. He keeps and feeds them till the day of the sale, when they sign, in return for a certain sum given for them, a very long engagement as workmen or servants, according to their capacity, in consideration of a certain salary, feeding and lodging. Now, the sum given for them varies from £2 to £3. Their salary varies from 2s. to 3s. a week. Their feeding is horrible and so is their lodging. They suffer hunger, cold, heat, vermin, and work from early morning until late in the evening. They have agreed to pay back a certain sum if they break their engagement. They are deprived of relations, paper, acquaintances, of protection. They remain slaves, working for nothing, depriving thereby, for the profit of their master, other men of work, and especially English workmen.

While the policy of protection is in no way responsible for the labor situation in the United States, there is a brighter side to the picture than that here depicted, and which is clearly attributable to protection. In our last issue we enumerated the wages paid by an iron rolling mill company in Pittsburgh, Penn., in which the helpers of a mill crew, the lowest of the lot, received \$2.50 per day, while the roller, the highest, received \$24.88. The fact that these wages were paid was made public through the trouble between the workmen in the mill and the proprietors, who declined to sign the scale presented by the Amalgamated Association of Iron Workers, which demanded higher wages. It is true that there are but few industries where workmen receive such high wages, but it is also true that there are a great many industries which afford comparatively high wages—much higher than in countries where protection does not prevail. Both Great Britain and

situation. The diversity of employment offered in the cities, the shorter hours workmen are required to labor compared with what is the rule on the farm, and the advantages in an educational line that are to be found in large and wealthy communities are all factors to be considered. The sharper competition in the market for agricultural products, with its tendency to decrease the profits of the farmer, has also to be remembered, and in apportioning the causes for a movement not at all in the interests of the development of the race, full allowance should be made for a migration that is enforced as well as for what is voluntary. The causes aside, however, it is a general fact, shown in the most advanced communities, that the attraction of the town is an increasing force to the disadvantage of the country.

The *Globe* take pleasure in directing attention to the fact that the population of the United States has increased in greater ratio than that of Canada. The United States is a big country and includes a much greater variety of soil and climate than does Canada, and it is manifestly unfair to measure the two countries by the same standard. The increase in Canada was less in the Maritime Provinces than elsewhere, and greater in Manitoba and the North-West Territories. Reference to the map will show that climatic and many other conditions in the Maritime Provinces are almost precisely the same there as in the northern part of New England and New York. Miss Kate Sanborn, an American lady, recently investigated the matter of abandoned farms in New England, and found that in Maine there were 3,318 such farms, 1,342 in New Hampshire, and corresponding numbers in other States; and the census show that the increase of population in the sections alluded to is quite as small as that of New Brunswick, Nova Scotia or Prince Edward Island. On the other hand those States of the American Union which show the largest increase of population are those lying contiguous to Manitoba and our own North-West, and their increases are no larger, comparatively, than ours. Further reference to the United States census shows that in Ohio 28 counties show a decrease of population, in Indiana 25 counties in Illinois 30 counties, in Manitoba 6, and Dakota 11. These are border States, all of which have free access to the 60 000,000 market. So, too, 23 counties of New York have decreased in population, 7 in Maine and 8 in Vermont, the population of this latter state having increased but 136 in ten years. Michigan has access to the big American market, but 15 counties in that state have decreased in population since 1880. Certainly the counties in these states which border so closely upon Canada should not have decreased in population, if counties in Canadian territory bordering closely upon American States decreased in population because there is no unrestricted reciprocity between the two countries.

There is no stronger reason for the lack of larger increase of population in Canada than that such papers as the *Globe*, and such politicians as Sir Richard Cartwright, are constantly running down the country, losing no opportunity to deprecate the laud, the climate, the people, the laws, the institutions and the politics that rule. They are iconoclasts who endeavor to break and destroy all that patriotic Canadians hold dear; they are pessimists who would even paint the heavens black if they could, and who would rather see the country depopulated and

made a howling wilderness rather than prosperous and happy under rule other than theirs. If the earth would open and swallow up these croakers and evil birds, the country would be much better off without them.

EDITORIAL NOTES.

THE Philadelphia *Bulletin* suggests a way to prevent the influx of undesirable immigrants into the United States. Its remedy is for Congress to impose a tax of \$50 on every foreign born man, woman and child who goes into that country to live. In other words it wants its Chinese Exclusion Act made to apply to all the rest of the world.

THE duty upon pig iron should be a protective duty, by which the pig iron industry would become established. A duty of only \$4 per ton is a duty for revenue only, the entire removal of which would not injure the country any more than the removal of the duty upon raw sugar. The duty upon pig iron should not be less than \$7 per ton.

THE Montreal *Herald* expends its strength in a column-long editorial trying to persuade itself of the unconstitutionality of the American protective tariff, at the same time lamenting that means cannot be devised to have the constitutional aspect of the Canadian system ventilated before the courts. Go to sleep again, sonny, and don't fret. Long after you have passed away, both Canada and the United States will be marching on in the road of national grandeur and prosperity under their respective banners of protection.

TORONTO's great Industrial Exhibition, which opens next week, will present greater attractions than on any previous occasion. There will be a fine display of machinery, etc., in the Machinery Hall, and in the Agricultural Implement Hall will be fitted as usual with an endless array of moving machinery. All the other departments will be well filled with interesting exhibits, and the amusement features of the affair will be new and exceedingly novel, particularly the fire works, which will be Paine's great masterpiece, "The Siege of Paris."

SHIPBUILDING in Nova Scotia is steadily increasing. The following shows the number of vessels built in that Province since 1887, and their aggregate tonnage:

	Vessels built.	Aggregate tonnage.
1887.....	87	12,300
1888.....	116	12,900
1889.....	106	16,645
1860.....	148	33,746

Some of the vessels recently built in Nova Scotia are among the largest and finest wooden ships afloat.

A NEW and interesting mechanical device for duplicating handwriting of any sort was recently on exhibition in Springfield, Mass. The originator is a man who evolved the machinery that made seamless stockings. Its principle, in brief, is like that of a sewing-machine and a stylographic pen combined. A needle rapidly projected from a pen point punctures the paper, making several copies at once. The number of copies depends upon the distance which the needle is

allowed to project. The 64th of an inch would give four or five copies, an eighth of an inch about thirty.

THERE are now very few lines of trade in which corporations are not found conducting a mercantile business. This is especially the case with houses which have built up a large trade which is in danger of being injured or weakened by the death of one of the partners. The change to a corporation secures perpetuity and also releases the general estate of old members of the firm from liability beyond the stock held by them. The antipathy to corporations, which is the stock in trade of sundry agitators and professed leaders of public sentiment, is exerting no influence whatever in checking their growth, but on the contrary the corporate idea is in this way becoming popularized.

ACCORDING to the *Philadelphia Bulletin* the Farmers' Alliance is disturbing the equanimity of things in the United States. It says:—

The movement of the people seeking new homes is turning to the great North west. A few years ago the railway trains leading westward were crowded with emigrants bound for Kansas, Nebraska, or Dakota. One or two short crops have created discontent. The Farmer's Alliance has come into existence, the chief support of which appears to be based on the misfortune of the people and its chief occupation formulating and publishing complaints. Emigration no longer seeks these States, however inviting their rich and beautiful plains. All is changed, and those seeking homes are looking farther west, casting their eyes towards the mountain States and the Pacific Coast.

A FACTORY in Ottumwa, Iowa, has increased fivefold its facilities for the manufacture of cutlery, and its hands employed from 100 to 500, entirely because of the new tariff. The *Ottumwa Courier* explains that the enlarged works will compete with foreigners in the production of a class of cutlery which this country was not able to manufacture with much success under former duties in competition with makers of other countries. At the same time that journal states that the prices of all kinds of cutlery are no higher in that town than they were before the new duties were imposed. These are interesting facts, and they accord precisely with what is known of the trade in Eastern States. Protection does it.

THE *Philadelphia Press* says: "Notwithstanding all the talk and legislation concerning undesirable immigration there continues to be an increase in the number of immigrants arriving in this country. And they are not as a rule of the class that makes desirable citizens. Formerly the great proportion of the immigrants were English-speaking or from the north of Europe. Last year over sixty per cent. of the immigrants or 332,000 in number, did not speak the English language. They came principally from Central and Southern Europe. A considerable proportion of them come from parts of Europe where eighty per cent. of the population cannot read and write their own language. It needs no argument to prove that these are not desirable. But how are they to be kept out?"

It occasionally happens that fomenters of a strike run foul of the laws and get into trouble thereby. A case of this kind recently occurred in Chicago. A conductor, and a discharged

conductor, of the Chicago and Eastern Illinois Railroad Company, undertook to tie up that road because a freight crew was discharged for disobeying orders. They stopped freight traffic for four days by issuing orders to trainmen in which they represented themselves to be a committee of employees. They were arrested on a charge of conspiracy to injure the company's business, and were convicted after a hard fought trial. The penalty imposed is rather light, being but \$100 fine each and costs, but the principle has been established that two or three disaffected men cannot block the traffic of a railroad.

THERE are 12 iron rolling mills in Canada, owned and located as follows: Ontario: 3 mills, all owned by Ontario Rolling Mill Company, Hamilton, Ont., 2 being located at Hamilton and 1 at Swansea, a suburb of Toronto. Quebec: 4 mills, all in Montreal, owned 1 each as follows: Montreal Rolling Mills Company; Pillow-Hersey Manufacturing Company; Peck, Benny & Co.; Abbott & Co. New Brunswick: 2 mills, both in St. John, owned 1 each as follows: J. Harris & Co.; I. & E. R. Burpee. Nova Scotia: 3 mills, owned 1 each as follows: Londonderry Iron Company, Londonderry; Nova Scotia Steel and Forge Company, New Glasgow; E. D. Adams & Co., Halifax. Recapitulation: Ontario, 3 mills; Quebec, 4 mills; New Brunswick, 2 mills; Nova Scotia, 3 mills: Total in Canada, 12 mills.

THE Grand Trunk tunnel under the St. Clair River at Sarnia will be formally opened on September 19th. The opening ceremonies will be most brilliant in their character. Sarnia, on the Canadian side, and Port Huron, on the American side, will give up the day to celebration and enjoyment. The arrangements now being made for the opening include a banquet in the tunnel, at which President Harrison, many of the American State Governors, the Governor-General of Canada, Sir Henry Tyler, president of the Grand Trunk Railway, and other Grand Trunk officials will be present. The tables will be laid on the boundary line, and during the entertainment and banquet the 13th Battalion Band of Hamilton will play a programme of music. On the Canadian side the band will play "God Save the Queen" and on the American side "The Star Spangled Banner."

A FACT which will make scientists open their eyes is the practical use of air as a fuel. An explanation of the process is as follows: Air is mixed with coal gas, as every one knows, and with hydrocarbon vapors, and the compound when burned generates a much greater heat than if the air were absent. So, too, a powerful air blast is a great economizer in smelting and reducing ores. But the new fuel is the air itself, which as a powerful blast is directed upon an incandescent substance, say coal made white hot, pure carbon or any other materials that can be made to glow. Coal, hydrocarbons or what not may be employed to give the initial incandescence, but once the blast strikes the luminous body, the utmost intensity of heat secured apparently by the combustion of the air, and may be maintained for an indefinite period by merely pressing the incandescence of the surface, and this may be done by a slight manipulation of the surface brought to incandescence, and with some slight renewal of carbonaceous material.

A CORRESPONDENT of the *British Trade Review* says that "Spain seems to be waking up after its long sleep. If a man wants to see what the world was like three hundred years ago he will find it in parts of Spain. And yet in some places the very latest inventions are freely adopted, and these places give evidence of great activity and bustle of commerce and the most modern ideas. The throng of wayfarers on the Rambla at Barcelona or in the streets of Madrid is as great as in Market street, Manchester. The picturesque costumes are changing for English and French fashions, and the old bits of coloring and memories of the past will soon be gone with the improvements that are beginning to manifest themselves on all sides. I find the commercial shipping of Spain stands fourth among the list of nations. After travelling through the country from the Pyrenees to Gibraltar, from Cadiz to Barcelona, with its 17,000,000 inhabitants, one cannot return without feeling that there is still a future for Spain of prosperous self-development."

SECTION 6 of the Customs Act, of 1879, reads as follows:

Any or all of the following articles, that is to say, animals of all kinds, green fruit, hay, straw, bran, seeds of all kinds, vegetables (including potatoes and other roots), plants, trees, shrubs, coal and coke, salt, hops, wheat, peas and beans, barley, rye, oats, Indian corn, buckwheat, and all other grain, flour of wheat and flour of rye, Indian meal and oatmeal, and flour or meal of any other grain, butter, cheese, fish (salted or smoked), lard, tallow, meats, (fresh, salted or smoked), and lumber may be imported into Canada free of duty, or at a less rate of duty than is provided by this Act, upon proclamation of the Governor in Council, which may be issued whenever it appears to his satisfaction that similar articles from Canada may be imported into the United States free of duty, or at a rate of duty not exceeding that, payable on the same under such proclamation when imported into Canada.

This offer on the part of Canada to the United States for reciprocity in natural products has been standing ever since March 15, 1879—more than twelve years. Reciprocity on any other basis will never be considered by Canada, that is as long as the National Policy prevails.

REAR ADMIRAL BELKNAP'S survey of parts of the Pacific preparatory to the laying of the proposed transpacific telegraph cable indicates that extraordinary difficulties will be encountered. "His soundings," says the *Engineering and Mining Journal*, "shows the existence of a trough or basin of extraordinary depth and extent along the east coast of Japan and the Kurile Islands, and under the Kuro Siwo, or Japan or Black stream. The basin exceeds any similar depression yet found in any other regions of the great oceans. In a run of thirty miles after leaving the coast of Japan the waters deepened more than 1,800 fathoms, and upon the next cast of the lead the wire broke after 4,643 fathoms had been run out without bottom having been reached. Thermometers specially constructed for deep-sea sounding were wrecked by the unprecedented pressures. The depth of the deepest cast—5½ miles, the deepest water yet found—is sufficient to hold two mountains as high as Japan's great Fusiyama, one on top of the other, and then the summit of the highest would be nearly two-thirds of a mile under water."

It is noticeable that none of the daily papers of Canada on either side of politics have ever yet taken a decided stand on

the nickel question, and declared whether they were in favor of imposing an export duty upon nickel ore and matter or not. One set seems to be afraid and the other "dassent." Meantime thousands of tons of this mineral wealth is being taken out of the country, and Canada has nothing to show for it but the hole in the ground from which it is taken. Impose the duty.—THE CANADIAN MANUFACTURER.

This is a very remarkable statement. Down here they frequently advertise for men to go to the mines, and always profess to give the highest rate of wages. Then when companies are formed to take over any of these mining properties prospectors always talk of almost fabulous profits. Is our friend one of those illogical parties who want to have the cake and eat it too? As to the daily papers not advocating an export duty on nickel—well, they have sense enough to leave that asinine work to THE CANADIAN MANUFACTURER.—*Montreal Herald*.

In the absence of intellectual capacity to comprehend a plain proposition, and inability to observe the amenities of journalistic life, the *Montreal Herald* finds ready refuge behind its usual mud fort of billingsgate and blackguardism.

THE wheel of Time has again revolved, and in a few days Toronto's Great Industrial Fair for 1891 will be open to the public, and people will be again flocking to it from all parts of Canada and the adjoining States. The harvest has this year been good, and the attendance of visitors to the great Fair may therefore be expected to be very large. The entries in all departments are sufficient to completely fill every building on the grounds, as well as the new ones that have been erected during the summer. The Dominion and Experimental farms are each sending very important exhibits, showing the result of practical tests in the various departments in which the farming community are specially interested. British Columbia and Manitoba are also sending much larger exhibits than heretofore. The live stock exhibit will be very fine. The list of attractions as announced in the official programme issued by the Association is a very long one, and cannot fail to please the visitors, as there will be something of interest to see every minute of the day and every day of the Fair. The Fair will be opened by Major-General Herbert on September 8th, and closes on the 19th. The usual low rates and special excursions will be given on all the railways.

THE Canadians are indignant because the English charitable societies and humanitarians gather up the pauper children and infantile outcasts of the great cities and ship them into the Dominion, where they are farmed out in the agricultural communities. This system has been followed for many years past. "Without exception these waifs are tainted with either physical or moral leprosy, or both," comments a Canadian trade journal which has been outspoken in its condemnation of the injustice thus perpetrated upon the country's hospitality. Our Canadian neighbor is certainly right in objecting to be made a dumping-ground for this degraded human element, which promises to sow the seeds for a future crop of subjects morally contaminated by hereditary taint. The evil is one of a kind similar to that which we have ourselves suffered for years at the hands of English parochial officers, who have been in the habit of getting rid of their worn-out paupers by paying their fares and delivering them like merchandise at Castle Gardens to become a charge to our people. We can therefore sympathize with Canada in her indignation even while we may wonder how it comes about that a people of such perfervid loyalty are not willing to bear in a proper

spirit of submission these evidences of the mother country's interest in the building-up of their country, for although these offsprings of the prison and the gutter are sent out by private institutions, it is well understood that the Government favors, even if it does not assist, in the work of deporting them.—*American Artisan.*

"Perfervid loyalty" be hanged. Canada does not intend to be made a dumping ground for the paupers of other countries, whether they come from England or not. Leastwise, not if vigorous kicking can prevent it.

OUR usually level-headed contemporary, the *Cleveland Iron Trade Review*, is indignant because a concern in St. Louis, Mo., who desires to engage largely in the manufacture of tinplate, wish to import skilled and experienced workmen from the tinplate works in Wales for the purpose. The tinplate industry not being an established fact in the United States, the Government had decided that the immigration laws, which prevent the importation of labor under contract, did not apply in this case, and thereat our contemporary is quite indignant, declaring that the Government "have placed a first class weapon in the hands of the opponents of American tinplate, and the sooner they retire from their position the better. The spirit of American protection is to build up new industries through the employment of American labor; anything that calls itself protection and ignores this very plain and common-sense proposition can be safely set down as the spurious article." This is not our funeral, but we feel considerable interest in the result of the efforts now being made to establish the tinplate industry in the United States. We suggest that if the Welsh workmen emigrate to the United States, with the intention of making that country their home, from the day they set foot on those shores they are American workmen to all intents and purposes. A very large portion of the inhabitants of the United States are of foreign birth, but this fact does not imply that they are not really and truly Americans if they have complied with the naturalization laws. On the same principle advanced by the *Iron Trade Review* objection might be made to the introduction of foreign capital going there for investment in manufacturing enterprises. Both foreign capital and foreign labor in our opinion, becomes instantly Americanized when employed in a manufacturing industry in that country.

THE following item appeared in the *Toronto Globe* of Dec. 29, 1882:

The establishment of a foundry in Canada by Kentucky capitalists has been the subject of considerable comment in Toronto, especially as it was reported that the gentlemen interested were conferring with the city aldermen to ascertain if arrangements would be made to have the foundry located in Toronto. It was stated by different parties that from three to five million dollars would be expended in the works, and about a thousand men would be employed, at a cost of \$75,000 a month. The Messrs. Worthingham yesterday gave some detailed information concerning the establishment of the foundry in Canada, but owing to a statement subsequently made by them that the information was not correct, these details are withheld. The gentlemen interested had been employed gathering data upon which to found their calculations, and after having given the information they ascertained that the tariff would have a different bearing upon the enterprise from what they had imagined. They stated that

a large increase of the tariff would be necessary before the foundry could be made to pay.

We commend the study of this item not only to the *Globe* and those who contend against the spirit of the National Policy, but to the Dominion Government also. In this instance there was the prospect of the establishment in Canada of iron works in which several million dollars would have been expended, giving employment to a thousand men, at a cost in wages alone of nearly a million dollars a year, and no doubt these works would have been established in Toronto if the duty upon iron and iron products had been sufficiently high. An army of a thousand men would mean a population of at least five thousand souls. As it was and is, a duty of \$4 per ton upon pig iron is not protection at all, but merely a duty for revenue; and such a duty is by no means in accord with the spirit or intention of the National Policy.

THIS journal has frequently called attention to the overcrowding of the professions, and that entirely too much of the public money was being spent in manufacturing a vast lot of very poor doctors of various sorts, out of very poor materials. We have showed time and again that most of these doctors can only obtain their living by sponging upon the community, and that many of them are nothing more nor less than harpies. An illustration of our contention occurred in a Toronto court a few days ago, in which, in a case that was then being tried it developed that it is a general custom for members of the medical profession to enter into agreements with druggists whereby the doctor is to receive commissions from the druggist on all prescriptions filled by him, the concession being 25 per cent on the charge for the medicine. This is a nice little arrangement between the doctor and the druggist by which the sick are victimized most unmercifully and without hope for redress from the imposition and fraud. Aside from the physical suffering incident to illness, it is exceedingly hard upon poor people, and even those in more comfortable circumstances, to be detained from their business; and the doctors' and druggists' bills are always of formidable dimensions; but it is productive of no pleasant feelings to be aware that doctor's visits are multiplied unnecessarily, and that prescriptions are usually changed at each visit. Of course it is not according to the ethics of the profession for the doctor to explain the nature or value of the nostrums he prescribes, or why he makes a new prescription every time he visits the bedside of the sick. But this recent development in a Toronto court emphasizes what we have before said, that the large drains upon the public purse to sustain universities, whose business it is to turn out doctors of different sorts in unlimited numbers, is an outrage upon the rights of the masses of the people which should be abated.

ENGLAND is becoming alarmed at the exodus of destitute Hebrews from Russia, as large numbers of them are seeking refuge in Great Britain. This movement has assumed such proportions that it is termed "Hebrew invasion of England." It is estimated that 500 appeals are made each week to the different newspapers by individuals urging that the authorities should introduce legislation to exclude destitute aliens similar to the immigration law recently adopted by the United States. The *Evening News* warns the authorities that if "the Hebrew

invasion" is not checked there will grow up an anti-Hebrew movement in England, in comparison with which the New Orleans feud would be a small affair. The manager of the Shelter, an institution established for the reception of Hebrews arriving there, asserts that almost every destitute arrival is entrusted to his care and that the number does not exceed twenty per week, fully nine-tenths of which number are re-shipped to Chicago, New York, Boston or the English colonies. When questioned as to how these destitute Hebrews succeeded in gaining admission into the United States the manager said: "Oh, we take care to provide for them before they are shipped so that on landing they can show that they are capable of earning a living. There is no reason that any country should object to this." Careful investigation tends to prove that about 500 weekly is the correct number of destitute Hebrews captured by the 'sweaters' upon their arrival in Great Britain. These captured Hebrews are lodged in dives in the vicinity of the docks and work for "sweating" tailors at the lowest possible wages. It is also shown that systematic pro-curation exists in regard to the young Hebrew girls and a society has been formed, composed of Hebrew ladies, to prevent this system of pro-curation. The ladies composing the society have arranged to send an inspector to each ship arriving with Hebrew immigrants on board. These inspectors will warn the Hebrew girls against the danger awaiting them and will see that they are not enticed into the dens which abound in certain sections of London.

An American free trade contemporary appeals to the farmers of that country to demand of the protectionists there how long it is going to take them to make that home market that had been so long promised them. This appeal is precisely like that which Canadian free traders are always making to the farmers of this country, and an answer to one is an answer to both. The people of Canada and of the United States are large consumers of food, and of a better quality than that of the people of any other country. They consume about 90 per cent. of the non-perishable farm products of the country, and substantially all the perishable products. Of course these products are not all consumed upon the farms, but in the cities and towns and manufacturing centres by non-producers; and the city of Toronto alone consumes more beef than all the shipments of beef from Canada to foreign markets. In the United States there are nearly 4,000,000 persons employed in manufacturing industries, the products of their labor being consumed chiefly at home—in the home market; and that country is now a greater producer of iron than even Great Britain. One of the chief reasons for the negotiation of treaties by the United States with the South American countries was that new outlets might be found for American agricultural products; but it would be a most happy circumstance for American farmers if there were never a bushel of wheat or a barrel of pork to be shipped away from their country—that were all consumed in the home market. No nation can become wealthy by producing raw materials and shipping them abroad. It simply exhausts its soil for the benefit of foreigners, who are thus enabled to purchase for themselves supplies at cheap rates. The prices of American farm commodities are always fixed by the price the surplus will command in other countries where it comes into sharp competition with the pro-

ducts of the whole world. This is one reason why American farm stuff is low in price and why farmers are poor. Were our crops all consumed at home, prices would be higher and the mass of people would be more prosperous

ACCORDING to the statistical abstract of the trade and commerce of the United States, just published, the quantity and value of nickel produced in that country in five years was as follows:—

Year.	Quantity pounds.	Value.	Average value per pound Cents.
1885.....	277,904	\$191,753	.68
1886.....	241,992	127,157	.52
1887.....	205,556	133,200	.64
1888.....	203,328	127,632	.57
1889.....	200,000	125,030	.62
Total.....	\$1,128,780	\$704,742	.62.3

It will be observed that the quantity produced each year is smaller than that produced the preceding year; and as the requirements of trade and the arts and sciences are constantly increasing, it is evident that the production of nickel in the United States has reached its maximum, and that other sources of supply must be drawn upon to meet the increasing demand. Until last year, when the great value of nickel as an alloy of steel for armor plates was demonstrated, the importation of nickel into the United States was of small proportions; and as the domestic supply was about equal to the demand, the domestic industry was protected by a tariff duty of fifteen cents per pound. In 1889 the entire production was only one hundred tons, but now, under a new order of things, the United States Government are in the market as a purchaser of thousands of tons of nickel which they desire for use in making armor plates for their new war ships. Coincidentally it is discovered that Canada possesses the desired metal in practically unlimited quantities, and now we see American capital buying up Canadian nickel deposits transferring the ore and matte in immense quantities to American works to be refined, the Government having removed all duties upon these cruder forms of the article. The United States cannot possibly do without Canadian nickel, and this should be our opportunity to reap some profit from our most valuable deposits, but instead of doing so some uncanny influence seems to blind the Canadian Government to the importance of the matter. In their greed the American Government forces the importation of the crude rather than the refined metal to the end that American works and workmen may be benefited by the manipulation of it. This is done by imposing a duty upon refined nickel. Yet our Government could force all this refining to be done in Canada simply by imposing a suitable export duty upon ore and matte. Why not do it? Impose the duty.

THE New York Press has recently reprinted from a London journal called *Fair Trade* a cartoon, descriptive of the closing of a tin plate manufactory in Wales, with hundreds of workmen and working women standing idle and sorrowful at its shut gates. The Press no doubt printed this as an indication of the advantage it was to the American people to starve these Welsh workers in order to improve our own condition. Something might be said on the broad humanity which such a

motive indicates, but we let that pass for the purpose of calling attention to the fact that the London *Fair Trade* which has printed this cartoon is an English protectionist paper, and its reason for thus depicting the possible misery in Wales is to incite in the English people the spirit of retaliation. What *Fair Trade* wants the English government to do is to impose a tax on every form of American product, to carry on a war of tariffs, and bring to the minds of the American farmers, by depriving them of the free market they now enjoy in England, the merits of reciprocal trade. This is an idea to which, apparently, the New York *Press* is giving its negative indorsement. Following out the McKinley bill theory of obtaining reciprocal trade, it would be a by no means difficult matter for the present English ministry to announce that on and after a certain future date it would impose duties upon wheat, corn, breadstuffs, etc., coming from any country producing the same, which imposes duties and other exactions upon the products of the United Kingdom, which, in view of the free introduction of such commodities into the United Kingdom it may deem to be reciprocally unequal and unreasonable. This is a paraphrase of sec. 3 of the McKinley tariff act. It is something of this kind which the London *Fair Trade* wishes to have adopted by the English government, and it is this to which the New York *Press* seems to be giving a negative endorsement.—*Boston Herald*.

Many of our free trade contemporaries try to close their eyes to the fact that Great Britain is fast drifting away from the free trade hallucination that has possessed her for half a century, and returning to protection, the only system by which she can hope to maintain the commercial supremacy she has obtained in the world. If Britain had possessed such a lever as Mr. Blaine now controls—that is a system by which she could have imposed import duties upon American products—the power could have been very judiciously used in the Welsh tin plate business. And even now if Britain should declare that a duty should be laid upon certain American products unless the McKinley duty upon tinplates was relaxed, it would undoubtedly have the the desired effect. It is rather far-fetched for the *Herald* to prate in this day and generation about “broad humanity.” It should remember that Governments, like heads of families, should first consider the welfare of their own people before their charities are extended to strangers. The Mountain would not go to Mohammed, therefore Mohammed had to go to the Mountain. The Welsh tin plate workers cannot prevent their industry removing to the United States, so perforce they will have to become American citizens. But if Britain had protection she could force a reciprocal trade with the United States, which would at least enable her to foil Mr. McKinley in some things.

SPECIAL ADVERTISEMENTS.

Advertisements will be accepted for this location at the rate of two cents a word for the first insertion, and one cent for each subsequent insertion. Subscription \$1.

“TRIUMPH OF THE AGE.” Attention is called to the advertisement of The Eno Steam Generator Company, Limited, on page 166 of this issue. This Generator is being adopted by the leading manufacturers in Canada and the United States. Every steam user should investigate its merits.

J. L. O. VIDAL & SON, City of Quebec, are agents to sell and handle on commission all sorts of new and second-hand machinery, engines, boilers, pumps, agricultural implements

belting, hose, safes, saws, files, bolts, machines and tools for shoe factories, etc. Consignments solicited. Best references given.

THE HEESON IMPROVED SHAKING FURNACE GRATE has no equal for all kinds of furnaces, round or square, boilers heating furnaces, ovens and stoves. It is the only grate that will clean fires without opening fire doors. It is the strongest bar known, having the most air space, thus securing better combustion. These bars are saving more fuel and generating more steam and will last longer than any other bars on the market. Ten per cent. saving in fuel guaranteed or no sale. References on application. HEESON GRATE BAR CO., 38 King St. East, Toronto

FOR SALE, A VALUABLE CANADIAN PATENT.—The Trenholm Improved Perpetual Hay Press, patented 1882, has been manufactured in New Brunswick for nine years, and stands without a rival in the Maritime Provinces. As it has not been introduced in the Upper Provinces, the purchaser can, if he manufactures there, get practically a complete control of the business in Canada, as this machine is cheaper, stronger, easier running and more durable than any other Press of its class, and is well protected by patent. Full investigation invited. Terms easy. Write for particulars to A. J. TRENHOLM, Sussex, N.B.

Our Little Ones, for September, published monthly by the Russell Publishing Company, Boston, Mass., is just as brimful of interest for the wee ones as ever, with a picture on every page and the reading matter entirely within the comprehension of those whom it is intended to please and delight. Families where there are small children will find this charming little monthly worth many times its cost in affording entertainment to the imperious youngsters whose attention must be occupied. Subscription \$1.50 per year.

Good Housekeeping aims to instruct in “the building of the home,” the making of the best possible out of the material at hand; not the structure in which the life is passed, which is the house, but the spirit and the life which is lived there, which makes the home. Having this high purpose, and reaching in the scope of its pages every department pertaining thereto, it is a power for good in the ranks of the magazine world of the day. No home is so humble that *Good Housekeeping* would be out of place, while the more prosperous would find its monthly visits equally welcome. It seeks to promote the happiness of the home, the prosperity and content of its inmates, their health, convenience and right living, as well as their entertainment and instruction. It is thus always a magazine of the highest moral tone, pure and refined in its every department, and with its broadness of scope presenting a diversity and wealth of contents which charm all members of the home circle. It is a pleasure to commend a publication of this nature. Clark W. Bryan & Co., publishers, Springfield, Mass.

THE series of portraits of Presidential possibilities which *The Illustrated American* has been publishing, was brought to an end in the issue for the week ending September 5th, the last to appear being one of Judge Walter Q. Gresham. Much interest aside from political consideration, was aroused by the series and the accompanying sketches, as one and all demonstrated what pluck and perseverance would enable an American boy to achieve. Two articles in the same issue show how Americans may spend their money after they have achieved fortune. One is the continuation of an article on Newport and its magnificent residences, and the other relates to the pleasures and difficulties of coaching. Both are attractively illustrated. Lady Hesketh, a titled American woman, is portrayed on the frontispiece. A picture of Della Fox is added to the Gallery of Players. Other articles of interest relate to St. Bernard Dog, the romance of the tulip, the present troubles in China, and how to furnish a flat at slight expense. “Arthur,” is the title of a complete story contained in the number. In the issue is included a sketch of “Columbine,” by Arthur Jule Goodman, printed in colors.

Our Monthly is an elegant sixteen-page journal devoted to the interests of life and accident insurance, and is published monthly, as its name indicates, by the Manufacturers' Life and Accident Insurance Companies, Toronto. A suggestion of the editorial literature presented by this journal is contained in the following, published in the last issue:—"There is a duty—a moral obligation—devolving upon every man, and that is to provide for the protection of those dependant upon him. The misfortunes of life are so many that he who is rich to-day may be poor to-morrow. Statistics show that ninety-seven business ventures in every hundred are failures, and that only a small proportion of those who have accumulated a fortune retain it. The poor man whose prospect of wealth is small, and whose death would take from his wife and children their sole support, should provide for the payment to them at death of a sum sufficient if possible to meet their necessities, and most certainly sufficient for the education and bringing up of his children, until of age to fight the battle of life for themselves. Such protection can be secured at a small annual outlay by a Ten-twenty plan policy in the Manufacturers' Life."

The Maritime Province penitentiary, at Dorchester, N.B., is described in the last issue of the *Dominion Illustrated*, with a series of fine illustrations reproduced from photographs. St. Anne's, the most charming summer resort in the vicinity of Montreal, affords two fine pages of illustrations, and there are fine views from Sault Ste. Marie and from the Rocky Mountain region. Types of Britain's Colonial troops is a fine page, and Milan Cathedral is another beautiful engraving. There are realistic sketches and laughable cartoons, besides brilliant literary features in this charming number. The Special Toronto Number of the "*Dominion Illustrated*" now in course of preparation, promises to surpass any previous publication of the kind. Embellished with handsome views of the city, public and private buildings, business blocks and portraits of leading citizens, it will also convey to the public a very large amount of important and valuable information with regard to the industrial and commercial resources of Toronto, and as such, deserves the cordial support of the business public. The publishers of the *Dominion Illustrated* have already begun the preparation of their Christmas number, which will be the finest holiday souvenir ever issued in Canada.

There is always a freshness about *The Ladies' Home Journal*, and a perfect knowledge displayed of woman's best wants at every season of the year. That so many thousands of women should find it the best magazine published in their interests, is not strange. The *Journal* is wide-awake; it employs the best pens; it understands what women want, and it is never weak; it has a way of entering right into the daily life of a woman, and appeals to her every mood, every joy and every perplexity. It is the best authority on everything appertaining to women to-day, and its September number gives evidence that it is getting stronger with each issue. Its regular salaried editors now number sixteen, and include Rev. T. De Watt Talmage, Maria Parloa, Margaret Bottome, president of "The King's Daughters"; Mrs. Isabel A. Mallon, undoubtedly the best fashion writer in America; Eben E. Rexford, Elizabeth Robinson Scovil, Maud Haywood, Foster Coates, Kate Tannatt Woods, Kate Upson Clarke, Emma M. Hooper, with Edward W. Bok as editor-in-chief. Such names are, in themselves, a sufficient guarantee that the *Journal* is of worth and strength. For one dollar it is sent to any address, for an entire year, by the Curtis Publishing Company, of Philadelphia, who conduct the *Journal*.

Outing for September comes to hand crisp and refreshing, as though borne upon the first cool breeze after the wearisome glare of the dog-days. Every article in it is well written, interesting and wholesome. This magazine encourages a love of nature and pure sport by placing within the reach of all the literature of forest and stream, mountain and plain. The September number is as usual, embellished with many beautiful illustrations. The contents are: "On the Plains of Assiniboia," by "Nomad"; "Trouting in the Metis Lakes," by C. J. Colles, M.D.; "Running High-Jumping" (Part I.), by Malcolm W. Ford; "A Coon Hunt," by Alexander Hunter; "A Love Match," by Wm. Earle Baldwin; "Canoeing on the Miramichi" (Part II.), Rev. Wm. C. Gaynor; "The Massachusetts Volunteer Militia" (Part IV.), by Captain Dan'l Morgan Taylor, U.S.A.; "Yacht Clubs of the East" (Part II.), by Captain A. J. Kenealy; "Some Modern Achievements of the Camera," by W. I. Lincoln Adams; "A Day Among the Prairie Chickens," by George Taylor; "The Home of the Red Deer in England," by Charles Turner; "Harry's Career at Yale" (continued), by John Seymour Wood; "Caught by a Wheel," by W. G. Calderwood, and the usual editorials, poems, and "Records" by the standard writers on sport, etc.

The September *Wide Awake*, while it has many articles for family

reading, is full of the sort of stories children find satisfaction in. Of course everybody reads "The Peppers" first, for just what Polly will do is as yet a mystery to us all, but the short stories will be read next. Mrs. Clara Doty Bates's "Red Lilies" is without doubt taken from life. "Two Fishermen" by Rowland E. Robinson describes a Quaker boy's holiday. What happened "All Because a Bluebird Sang" is eloquently told by Mrs. Maud Lincoln Langley. "Aunt Betsey's Cap Box" is an amusing family incident, by Clarissa Potter. "The Sovereign of '45" is perhaps the best story yet written by Mrs. M. E. W. Sherwood. "A Tale of the Black Forest" by Sally Thorndike reaches perfection as a fairy story. "Peterkin and Pollikin go to the Fair," by Annie Morrison, will be read over many times by little children. Marietta Ambrosi in her autobiographical serial describes her "good times" in tending the Italian silk-worms. "Miss Matilda Archambeau Van Dorn" in Miss Cumings's serial, keeps her relatives and friends in a very animated state of mind. "The Prince Imperial," by Mrs. Goddard Orpen, is an anecdotal account of the short life of the only child of Louis Napoleon and Eugenie; it is illustrated by excellent photographs of the imperial boy. "An Odd Set.—II," closes Eleanor Lewis's series: "Famous Pets." Short articles, poems and humorous pictures, together with the four pages of original anecdote called "Men and Things," complete the number. \$2.40 a year. D. Lothrop Company, Boston.

"The Socialism and Unsocialism of Thomas Carlyle." A collection of Carlyle's social writings; together with Joseph Mazzini's famous essay protesting against Carlyle's views. Numbers 3 and 4 of the Social Science Library. Price twenty-five cents each. The Humboldt Publishing Co., 19 Astor Place, New York. The putting together of what Carlyle had to say directly upon the social problems, with which we are still grappling, was work that badly needed doing for various reasons. In the first place although Carlyle was the prophet of silence, he was also "the prophet of silence in twenty-four volumes," and few have now the leisure necessary for a complete study of his works. In the second place, no one has yet surpassed him in the pungency of his criticism on the shams of our professed civilization. In the third place, Carlyle was in many things a Socialist, and always a pronounced Individualist, and he thus gives us a wholesome opportunity of looking at both sides of the shield. You take an interest in the land question, and think your ideas uncommonly advanced. It was Carlyle who said, half a century ago, that "the notion of 'selling,' for certain bits of metal, the Iliad of Homer, how much more the land of the world-creator, is a ridiculous impossibility." You grow terribly weary of the sordid statistics of the free trade school, pure and simple. It was Carlyle who went plumb to the bottom of their fallacies with the remark that "the saddest news is, that we should find our national existence, as I sometimes hear it said, depend on selling manufactured cotton at a farthing an ell cheaper than any other people." You certainly get very weary of the hozannas to universal suffrage that are ground out whenever a politician has an axe to sharpen. Has anything more cutting been yet said upon the subject than this from Carlyle: "The notion that a man's liberty consists in giving his vote at election hustings, and saying: 'Behold, now I too have my twenty-thousandth part of a talker in our national palaver; will not all the gods be good to me?' is one of the pleasantest!" It will be seen that Carlyle had much to say upon questions over which we are still racking our brains, and that he said it with a "vim." It is in this that his value to all speakers and writers greatly lies. He had a knack of making people listen, which is exactly what we want. The record will show that there is scarcely a country in which there is so much genuine, earnest thought upon social questions as there is in England, and that the sturdy work of Thomas Carlyle has been one of the main factors in bringing this about. For, as the editor very properly says, he was "the great unmasker." He was not what we should call nowadays a man of science, but he had what is at once the characteristic of modern scientific thought, and the secret of its success—a burning love of truth, a hatred of all shams. As such he is always a thoroughly wholesome tonic, however much you may differ from him. A most interesting essay by Mazzini on Carlyle is given as an appendix to the second volume.

A CONCERN in New York is at work on the manufacture of a paper "whale boat gig." The frame of the boat is of wood, covered with a preparation which it is claimed will withstand the various changes of temperature and the effect of the water, and in this latter item a practical trial proved that it did not absorb any water at all. It is much lighter than wooden boats, and while the cost is at present about the same, it is thought that future paper boats can be made at a cost of but little more than the material.

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. Subscription \$1.

FARMERS at Morden, Man., are building a grain elevator at a cost of \$8,000.

THE Lake of the Woods Milling Company will build a 600 barrel flour mill at Portage La Prairie, Man.

THE Waterloo Knitting Company has been incorporated at Waterloo, Que., with a capital stock of \$30,000.

THE capacity of the new sugar refinery at Vancouver, B.C., is to be increased to a production of 150,000 pounds of sugar per day.

THE Kemp Manufacturing Company, Toronto, are building a four story brick addition to their stamping works at a cost of \$12,000.

THE G. & J. Brown Manufacturing Company, Belleville, Ont., are building a fine iron highway bridge across the Speed River, at Guelph, Ont.

THE Trehern Farmers' Elevator and Milling Company is being incorporated at Trehern, Man., where they will build a flour mill and elevator.

MESSRS. ADAMS BROS. from Paisley, Scotland, have commenced the manufacture of woven bed covers at Paris, Ont. The goods are said to be of very superior quality.

MESSRS. CAMPBELL & FOREMAN, Nanaimo, B.C., are building a steamer for freight and passengers, for the fruit and vegetable business of that place with Gabriola Island.

THE Manitoba Paper Company is being organized with a capital stock of \$70,000, with head office at Winnipeg, to take over and operate the paper mill at Portage La Prairie, Man.

THE town of Peterborough, Ont., has voted a bonus to Messrs. Patterson & Corbin, late of St. Catharines, to establish their car works in that place, and the industry will be removed there without delay.

THE British steamship *Grandholm*, from Liverpool, May 22nd, arrived at Vancouver, August 13th. Her principal cargo consists of three steel steamers in sections, for the Union Steamship Company, which will be put together at Vancouver.

THE Chillian ship *Hindustan*, 1,542 tons, sailed from Burrard Inlet, August 14th, for Valparaiso, with a cargo of lumber from the Moodyville sawmill, consisting of 1,200,419 feet rough and 2,001 bds. laths, the deck load consisting of 106,197 feet.

THE Chillihack fruit cannery is taking all the plums and peaches grown by the farmers in that section, and there will not be the usual quantity from the district this year for export. The cannery will make an immense pack.—Victoria, B.C., *Commercial Journal*.

THAT British Columbia is in the race for a share of the commerce of the north Pacific coast is evidenced by the fact that of the 48 vessels now loading or discharging cargoes at ports on Puget Sound and its northern extensions, 23 of them are at Vancouver Nanaimo, Victoria and New Westminster.—Nelson, B.C., *Miner*.

MR. R. McKECHINE Dundas, Ont., is building an extensive machine shop which he expects to have completed and in operation next month. The moulding shop is completed, core ovens and cupola have been erected, a new floor bed laid and now new machinery is being put in. Goldie & McCulloch, of Galt, are making a new 80-horse power engine and boiler for the works.

PARIS, ONT., is now rather prominent in carpet manufacturing. Besides Stroud's factory and John Camelford's works, two new factories have started within the past year. Jas. H. Hetherington, the proprietor of one of these, now runs seven hand looms on two and three ply ingrain carpet, while Wm. Tyler has nine hand looms fully employed on the same class of goods. Mr. Tyler occupies the building formerly occupied by Mr. Camelford. Mr. Hetherington is from the Yorkshire district of England, as are his employes, and they seem to thoroughly understand their business.

THE Gutta Percha and Rubber Manufacturing Company of Toronto, have just shipped 2,300 feet of hose and two tons of rubber belting for Nanaimo, B.C.; 2,000 feet of hose for New Westminster,

and 1,000 feet for Vancouver, and they have now on hand an order for 10,000 feet. Within two months past they have sent out a quantity of belting, which if put in a continuous belt would measure fifteen miles. Recently they have received a number of orders from abroad, and among these foreign orders is one for 4,000 pieces of rubber clothing. The production of Canadian waterproof clothing for foreign trade is a new and certainly an interesting feature of our growing manufactures.

THE canning factory at Kingston, N.S., owned by S. S. Forrest & Co., Halifax, was opened last week, George Shearer being manager. The business of the factory will be condensing milk, coffee and cocoa, and canning blueberries, beans, peas, tomatoes, corn and apples. The factory is already handling 4,000 quarts of milk a day, chiefly supplied by the farmers of Kingston, Melvern Square and Aylesford, who receive one cent per pound for it. The condensing is done entirely by machinery. One of the buildings is devoted to condensing, another to canning, and a third is used for packing room and tinsmith shop. An artesian well furnishes an abundant supply of excellent water.—Kentville, N.S., *Chronicle*.

YESTERDAY Captain Webster, the manager of the Union Steamship Co., closed the negotiations for the lease of some land to be used as a shipbuilding yard in which to build the company's new steamers which are being brought out in the steamship *Grandholm*. He has selected some land on the Coal Harbor on the east side of the floating dock. The land has about 300 feet of water frontage. A number of men are now employed clearing the land, and under the direction of H. Darling, the company's engineer, blocks will be put down on which to lay the keels of the vessels. A blacksmith's shop will be erected, and several other preparations made, so that everything will be in readiness when the *Grandholm* arrives.—Vancouver, B.C., *News*.

MESSRS. REID, GILMOUR & Co., Peterborough, Ont., manufacturers of biscuit, confectionery, etc., have remodelled their factory, and have it in full running order. Messrs. Goldie & McCulloch, Galt, Ont., supplied the 15 horse power steam engine, and the William Hamilton Manufacturing Company, Peterborough, the 20-horse power boiler. The *Review* says: "The premises are far more extensive than when known as the Peterborough Biscuit works and not a vestige of the old machinery is left, everything being on a larger scale. With their bright prospects and encouraging commencement may the firm continue to succeed and their business expand until further additions will have to be built and the fame of the Peterborough biscuits and confectionery will be heard all over the land."

THE Dominion Government have completed a lobster hatchery at Bay View, four miles from Picton, N.S. The intention is to save such quantities of eggs as are now thrown away at the lobster factory. The law forbids the capture of lobsters having eggs in embryo. By the artificial process these eggs are brought in by the fishermen in the various factories. They are then deposited in a series of glass jars, through which pure sea water is made to pass. Already several millions of young lobsters have been hatched and planted out in localities where the fishermen have been in the habit of catching the parent fish, and there are about 50,000,000 of young in the incubators. It is said other hatcheries will be established in the provinces. The method adopted is certainly novel.—Colchester, N.S., *Sun*.

SOME of the most prominent iron founders are introducing a new and simple practice in order to secure stronger castings, the method in question consisting in placing thin sheets of wrought iron in the centre of the mould previous to the operation of casting. This method was first resorted to, it appears, in the casting of thin plates for the ovens of cooking stoves, it being found that a sheet of thin iron in the centre of a quarter-inch oven plate rendered it practically unbreakable by fire. This result has led to the process being now applied to the casting of large iron pipes, a core of sheet iron imparting additional strength and lessening the liability to fracture. As an evidence of the additional strength capable of being imparted by this means, it is stated that a plate of iron, a quarter-inch thick, cast with a perforated sheet of twenty-seven wire gauge wrought iron in the centre, possessed six times the strength of a similar cast plate with no core; the quarter-inch plate had the strength of a plate one inch thick.

THE Kemp Manufacturing Company, Toronto, proprietors of the Tin and Stamping Works, and manufacturers of plain and retinned stamped ware, pieced and Japanned ware, wire goods, copper goods, house furnishing goods, etc., are making a large addition to their premises, the new building to be 125 feet long by 65 feet wide. It will be composed of five flats, including basement, and is to connect with the present warehouse by an arch-way, under which shipping will be done from the new building, as well as from the present

warehouse, the latter having become too small for the company's requirements. The building will be connected by a 35 foot bridge with the japan room, and by a 20 foot bridge with the main factory; and it will also be connected with the present warehouse and offices by means of the arch-way above alluded to. In connection with the new building will be new offices and show rooms; the offices will be double the size of those now in use, and will be fitted up in polished ash. The show rooms will also be about double the capacity of the present ones.

Mr. PATTERSON, of the firm of Patterson & Corbin, was here on Wednesday in reference to the establishment of the street car factory. In company with Councillors Davidson, Moore, Langford and Winch and Town Engineer Belcher, he visited the site of the factory, a lot owned by the town, between Rink and Perry streets, and the ground was staked out for the three buildings which the town is to erect in accordance with the by-law that was endorsed by the people. The work of erecting the building will be undertaken at once and pushed forward, as the firm desires to move here as soon as possible. The work they are now engaged upon will be completed in about four weeks and they would like to move here before commencing any further work, so in from four to six weeks the factory will probably be running. Mr. Patterson says that they were offered larger inducements to go elsewhere, but they were pleased with the facilities Peterborough offered, and, besides, having agreed to the terms offered by Peterborough they felt bound to abide by the agreement.—Peterborough, Ont. *Review*.

THE Dodge Wood Split Pulley Co., of Toronto, have lately put their patent system of rope transmission into the following mills and factories: One 125 h.p. drive to the Rathburn Co., Deseronto, Ont.; one 40 h.p. drive to Quance Bros. saw mills, Delhi, Ont.; one 25 h.p. drive to E. B. Eddy Co., Hull, Que.; one 40 H.P. drive to Beautiful Plain Milling Co., Neepawa, Man.; one 10 H. drive to Gale Manufacturing Co., Toronto, and sundry other large systems through their Montreal agents. They have also recently shipped to Ottawa, four very large tightener pulleys, being 40 inches diameter, by 52 inches face. This firm inform us that their export trade has taken rapid strides of late. Their celebrated Split Belt Pulley being in strong demand all over Europe. They have now established depots at London, Paris, and Brussels, with

agencies at Birmingham, Glasgow, Sheffield, Cardiff, and Redfurth, also at Stockholm, St. Petersburg, Milan, Amsterdam, Hamburg, and Zurich. The Royal Arsenal at Woolwich, as well as many of the best and largest works and factories throughout England are now using the Dodge pulley from Toronto.

THE Dodge Wood Split Pulley Company, Toronto, are manufacturing a dressing for rope used in the transmission of power for which they claim great effectiveness and excellence. In a neat little folder which they have sent us having reference to this article they make the following claims: Best and most durable dressing made; gives greater adhesion to rope in grooves; costs less; excludes moisture better and in every way more satisfactory than any other similar article. This circular says further: "After a series of careful experiments extending over a number of years, experiments which have acquired the expenditure of much time and money, we feel that we can to-day consistently offer to the users of rope power transmissions the world over, AA-AI Rope Dressing as the best compound ever prepared for the preservation of all kinds of manila and cotton ropes used for power transmission. The ingredients of this rope dressing form an elastic coating over the surface of the rope. This coating prevents wear on the rope to a great extent, and when used on exposed ropes furnishes excellent protection against the weather. In addition to the advantages derived from the use of this dressing, as mentioned above, there is another advantage that cannot be easily over-looked, namely: the better adhesion of rope in the grooves. We have found, by actual experiment, that the application of this dressing, moderately, and not to excess, on a rope that has a tendency to slip, will remove such annoyance almost instantly. Were we not satisfied with the results of our experiments with this dressing we would withhold it from the market for a while, but, believing we have found just what we have been looking for, we unhesitatingly offer it to the public, confident that it will be well received and soon prove itself a benefactor to all users of transmission ropes. Arrangements have been completed for the packing of this compound in cans bearing labels, on which will be found directions for using. We estimate that a 10 pound can will cover about 1,200 feet of 1½ inch rope, or its equivalent, if properly applied." The article is put up in 5 and 10 pound cans, and cases contain one dozen cans.

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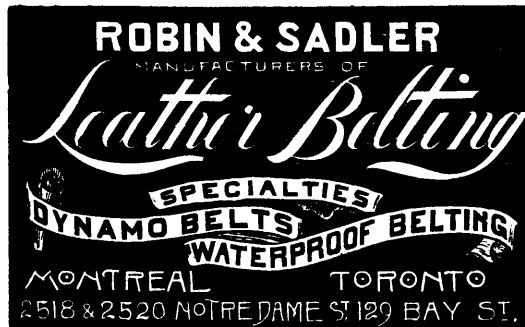
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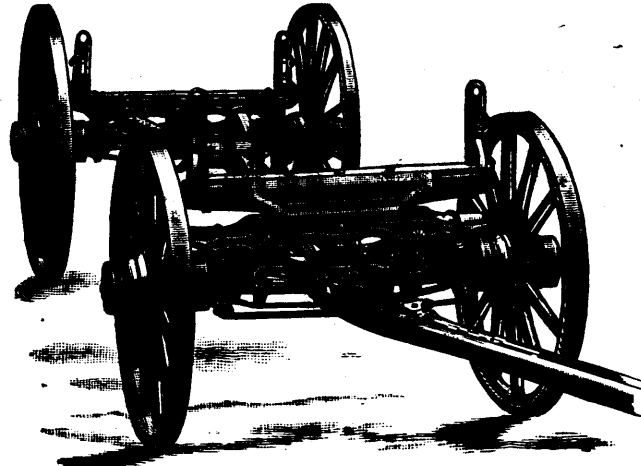
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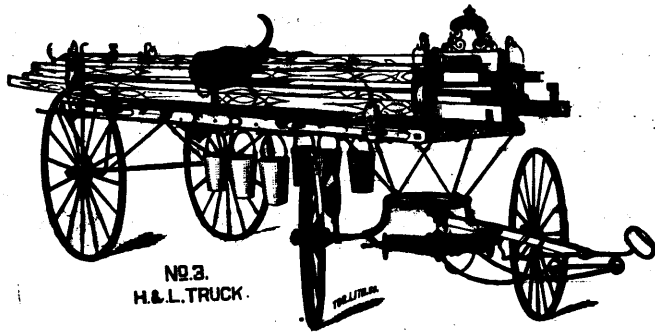
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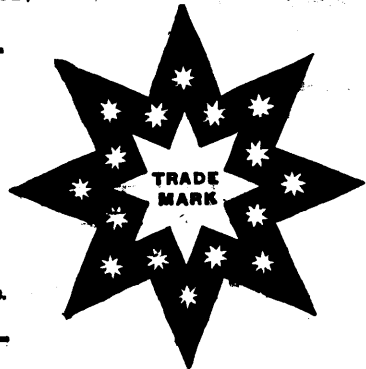
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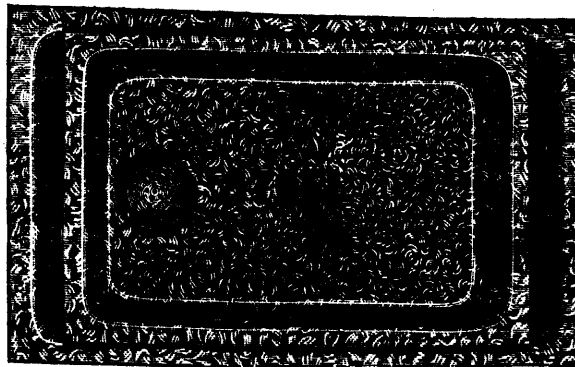
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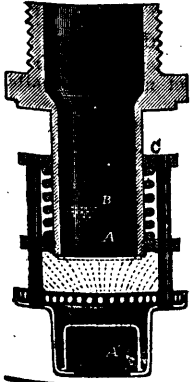
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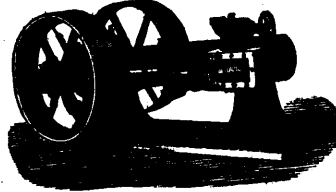
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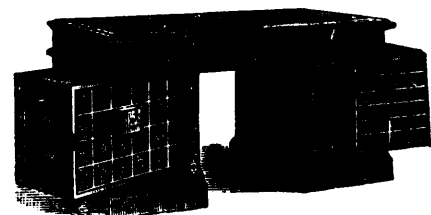
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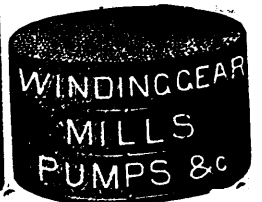
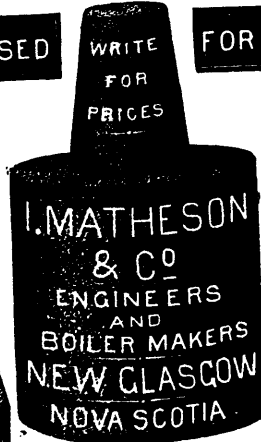
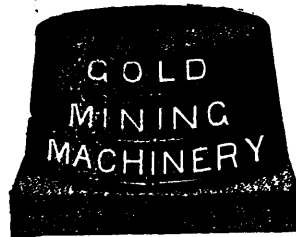
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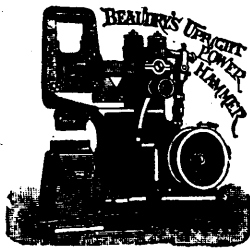
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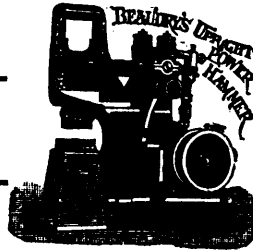
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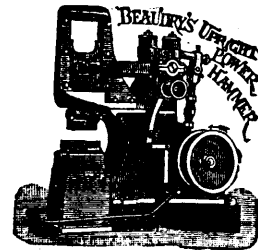
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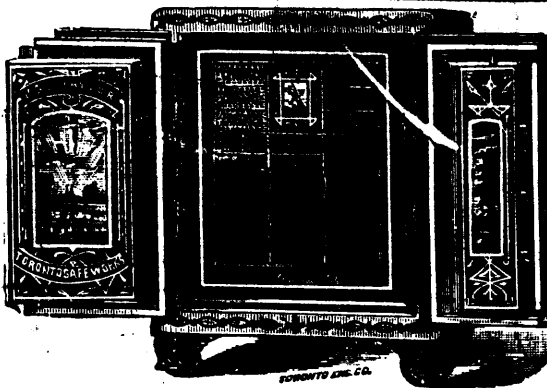


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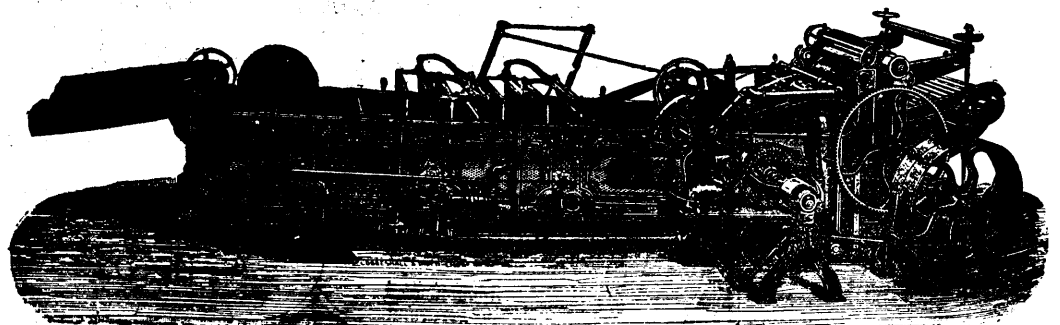
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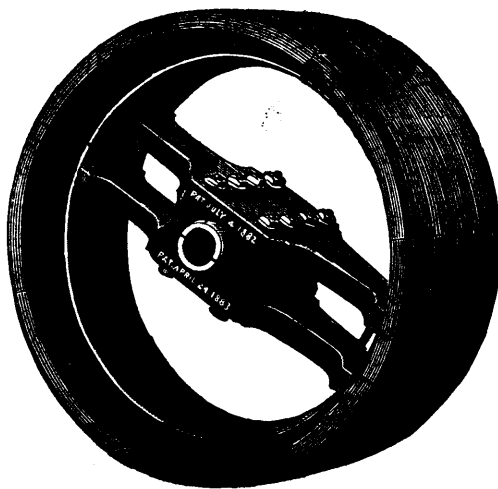
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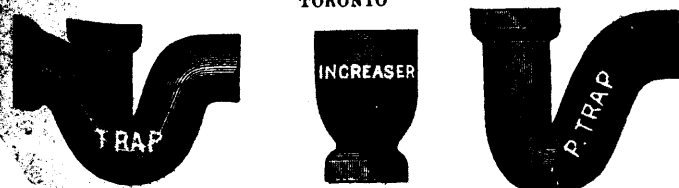
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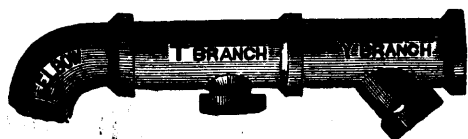


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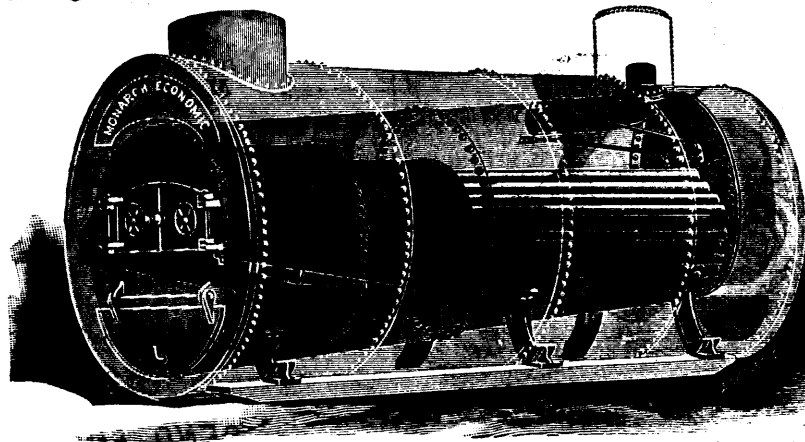
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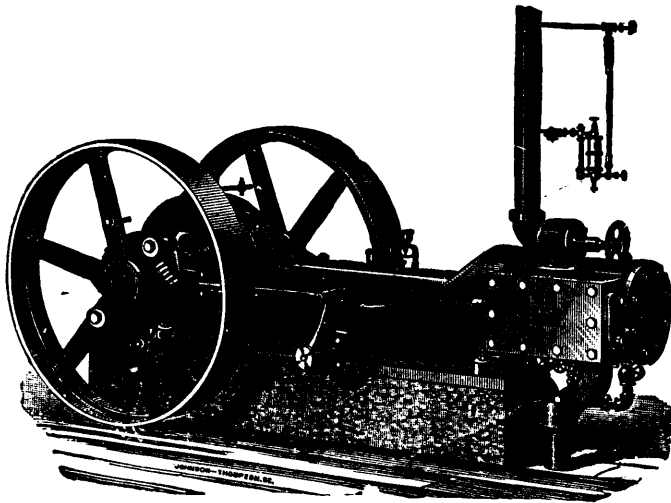


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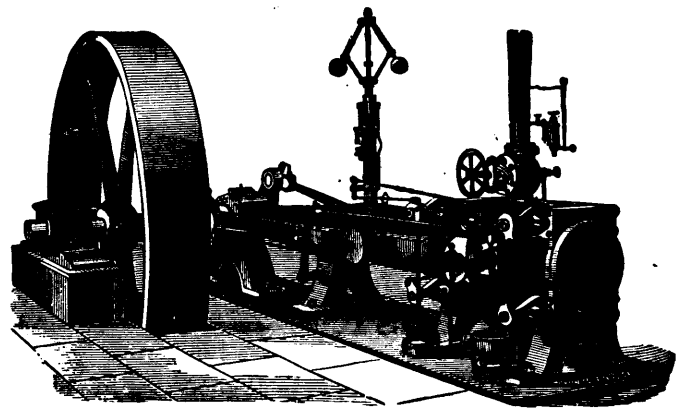
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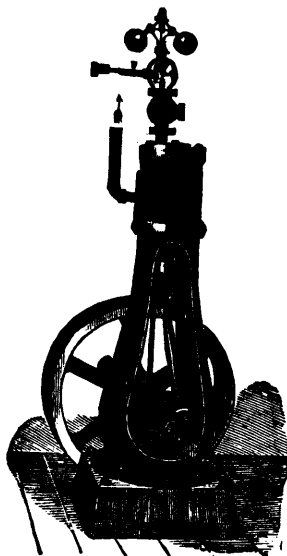
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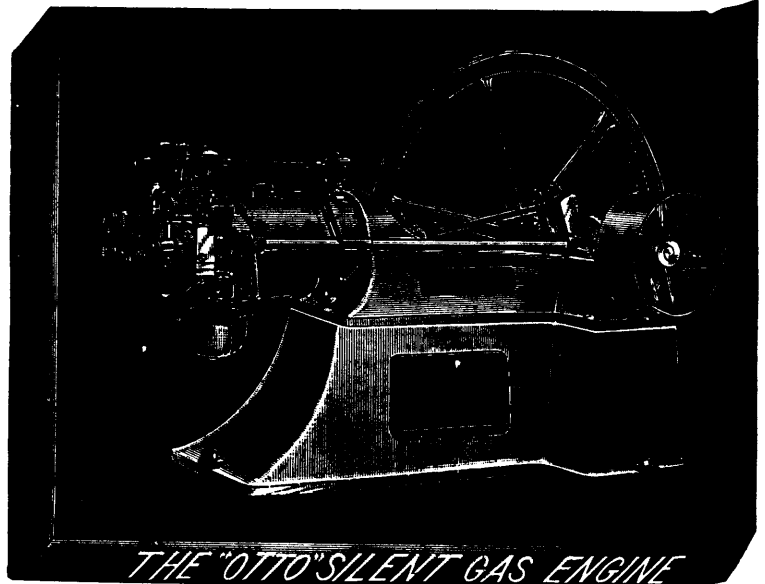
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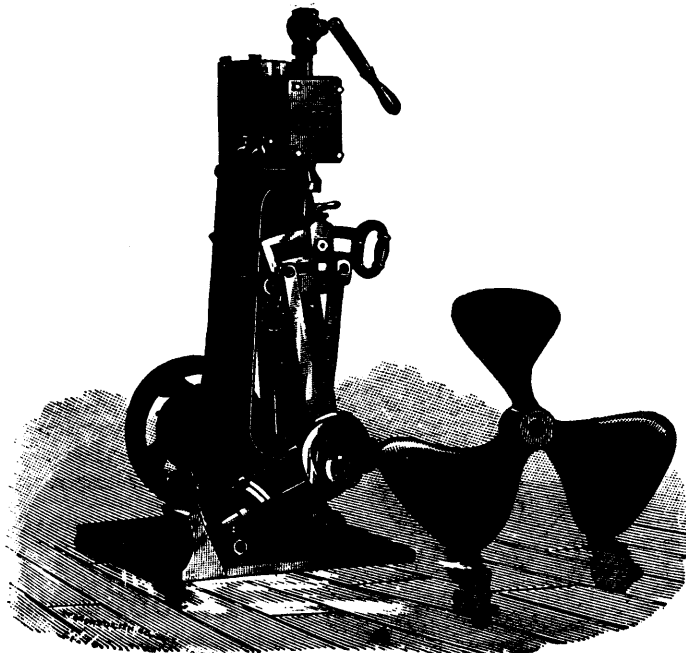
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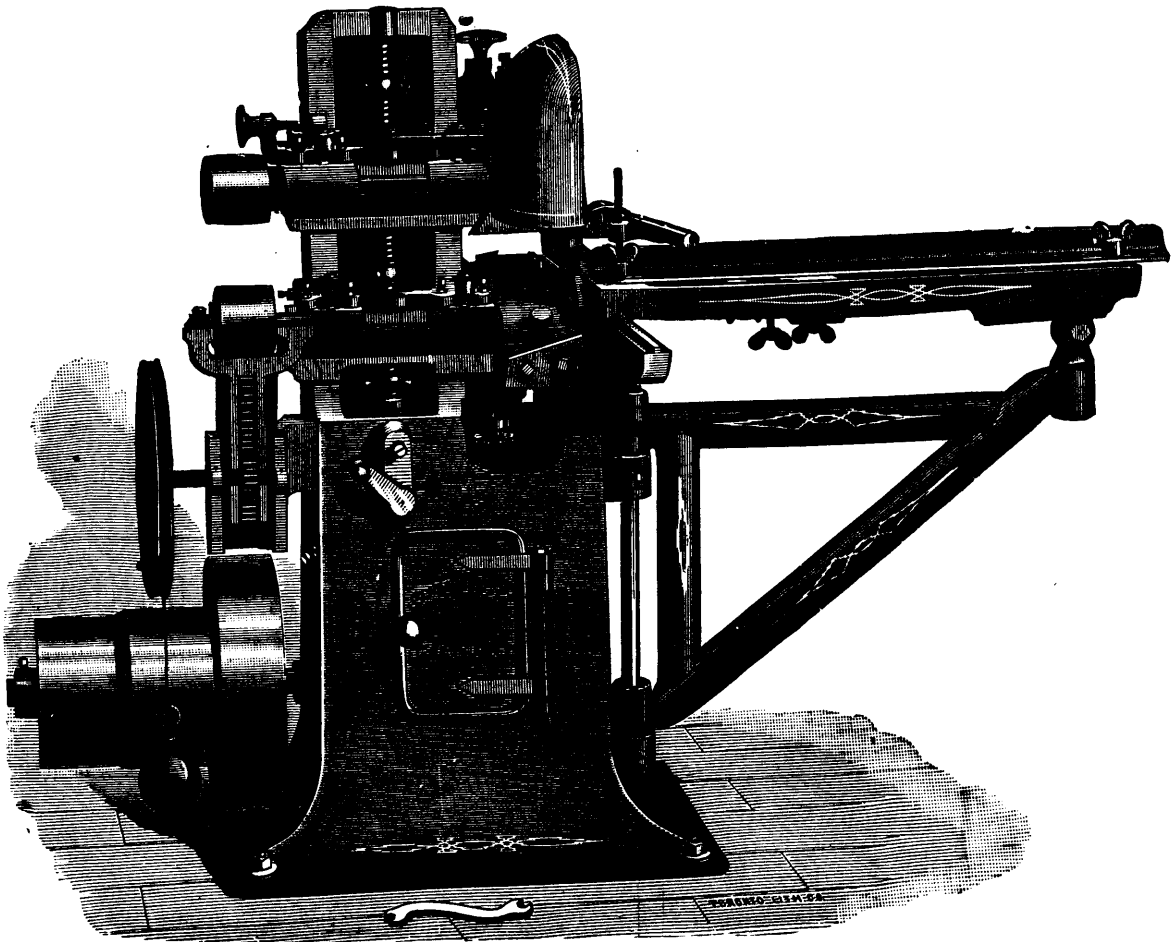
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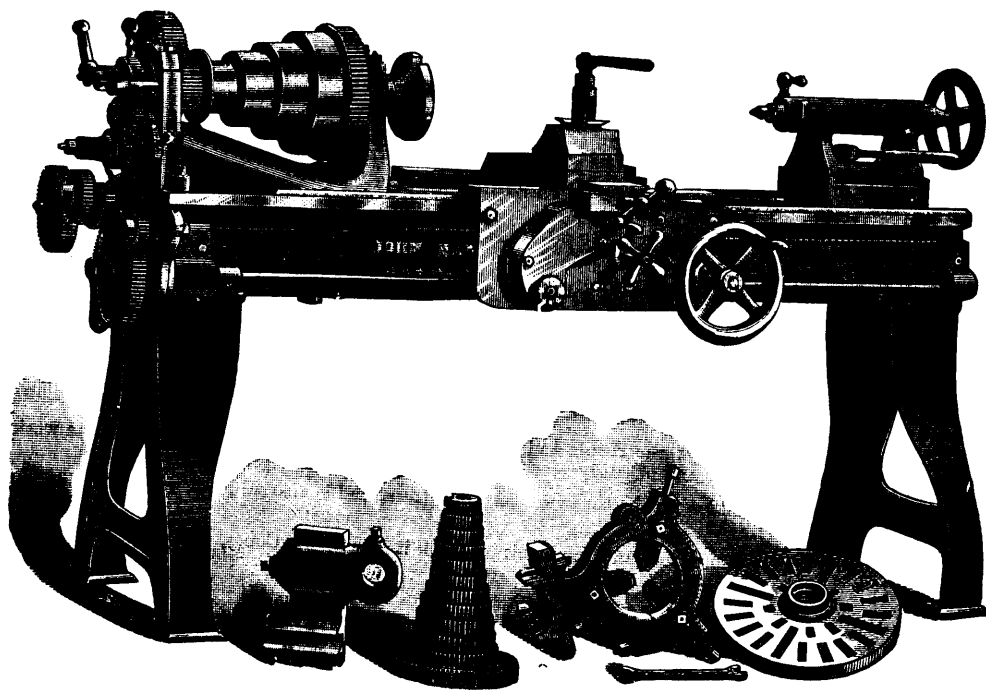
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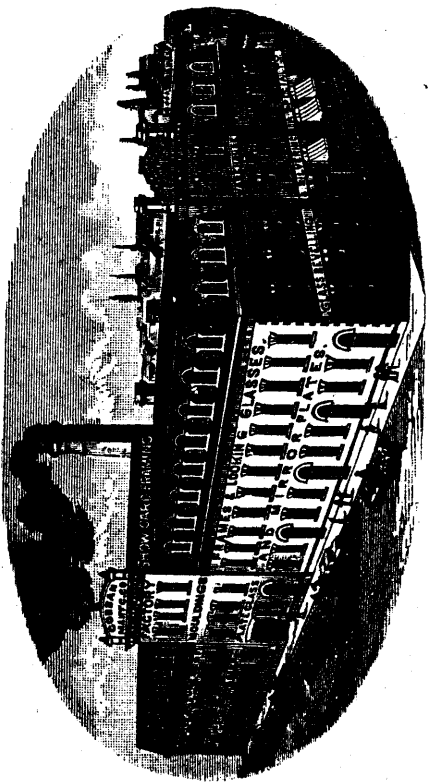
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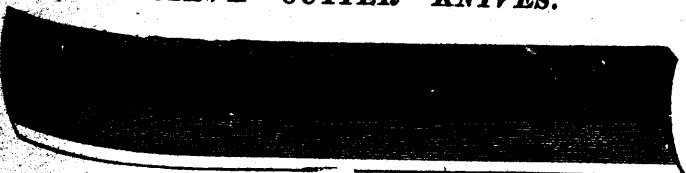
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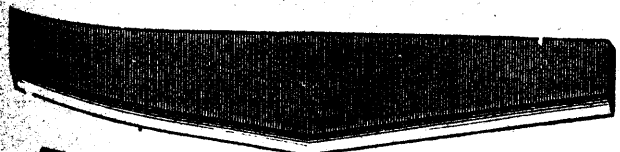
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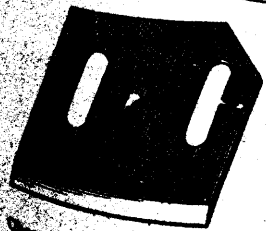
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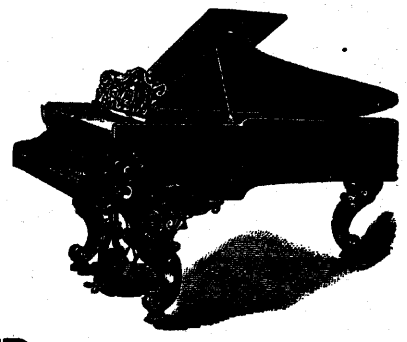
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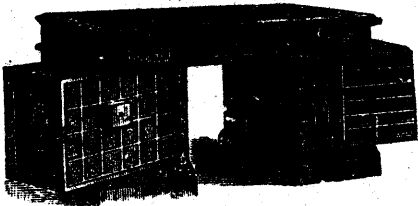
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