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Vol. 23.

TORONTO, AUGUST 5, 1892.

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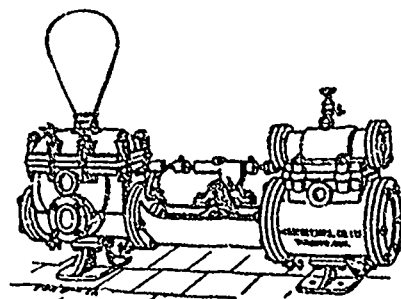
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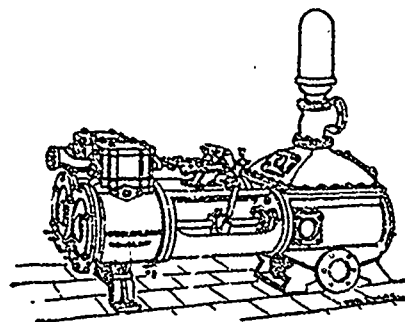
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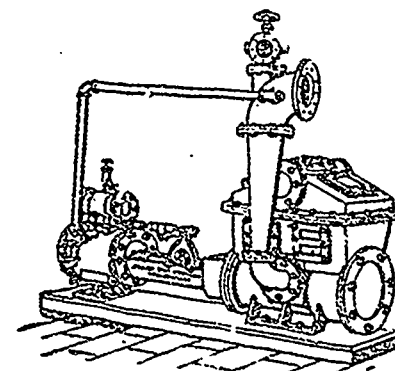


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Published on the First and Third Fridays of each Month

BY THE

Canadian Manufacturer Publishing Co.
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Room 66 Canada Life Building, King St. West, Toronto.

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CANADIAN MANUFACTURERS' ASSOCIATION MEETING

A SPECIAL general meeting of the Canadian Manufacturers' Association will be held in the Board Room, over the offices of the Toronto Industrial Exhibition Association, on the Fair Grounds, on Wednesday, September 14th, at three o'clock in the afternoon, during the time of the forthcoming Toronto Exhibition. All members of the Manufacturers' Association, and all manufacturers who may desire to do so, are hereby notified and invited to attend.

W. K. McNAUGHT, *President* J. J. CASSIDY, *Secretary*.

CANADA'S GREAT INDUSTRIAL FAIR

We take pleasure in calling attention to the fact that Toronto's Great Industrial Exhibition will be in full blast from September 5th to 17th proximo. The management recently succeeded in obtaining a generous slice of the adjacent common which has been enclosed and converted to the uses of the Fair largely increasing its area, and allowing of a very desirable and important re-arrangement of the grounds. Some of the buildings have been considerably enlarged and all of them put in

first class condition, and the accommodations for exhibitors were never so complete as they are to-day. We are informed by Mr. Hill the manager that the exhibits of machinery and mechanical appliances will be exceptionally large, particularly in Machinery Hall, where every facility will be afforded in the way of power for showing machinery in motion. The Exhibition Association appreciate the fact that Canadian manufacturers have done much—very much—to make their annual fairs the success they have always proved to be, and we are glad to be able to state that the exertions our manufacturers are putting forth in that direction this year are even greater than ever before. It is to be hoped, though, that those of them who may not have already made their arrangements for exhibiting will do so without delay. The date for closing entries is not now far away—the 13th inst. and it is exceedingly desirable that every effort should be put forth to show to the hundreds of thousands of visitors who will throng the grounds that the manufacturing capacity of Canada is equal to any emergencies that may occur.

There may be some Canadian manufacturers who propose exhibiting at the Toronto Fair, and who also desire to exhibit the same things at the forthcoming World's Columbian Exposition at Chicago. To these we would say that arrangements have been made by which exhibits at Toronto may remain in the buildings in which they are shown until such time as it may be desired to take them away to Chicago. This saves much time and expense in handling, as exhibits may be reloaded onto cars on Toronto Fair Grounds, and delivered from them on the Exposition grounds in Chicago.

A DIFFERENCE OF OPINION

THERE is a very great difference of opinion between the Minister of Finance and some Canadian manufacturers. When Mr. Foster moved the House of Commons into Committee of Ways and Means, to introduce his tariff resolutions, he said that he did not intend at that late hour in the session to propose any very extended changes in the tariff that in fact although a good many subjects had been brought to his attention they did not appear to him to be of such a nature as to make it advisable, so soon after a somewhat general revision of the tariff, to again undertake any general revision, and his view of this matter was all the stronger on account of the late hour of the session. He also stated that what he had to propose at that time was largely in the way of a reduction of duties not very important of themselves, but yet of assistance in certain directions. This allusion was with reference to what he said about stearine. Regarding this he said that strong representations had been made by the tanners in favor of the introduction free of duty, of two articles used in the manufacture of leather—degras and stearine—neither of which is produced in Canada, and both of which are necessary in the manufacture of leather intended for export. "This article, stearine," he said "was classed with stearic acid, and was, and charged a duty of three cents per pound. The value of the article is six cents per pound, so that the duty was a very heavy one, and it is proposed to allow that article to come in free of duty for the use of tanners.

There are some remarkably strange inconsistencies in Mr. Foster's position in this matter. In beginning his speech he explained that because of the late hour of the session he did not propose to make any very extended changes in the tariff. From this it might be supposed that if he had taken up the matter earlier in the session, as suggested by Sir Richard Cartwright, he might have found it necessary to make more extended and necessary changes. If these more extended changes were necessary they should have been made regardless of the hour. It might have called for more labor in attending to the matter, and it is no answer to those in whose interests the changes should have been made to be told by the Minister that he did not have time to devote to them.

We are also told that a good many subjects involving tariff changes had been brought to his attention, yet they did not appear to him to be of such a nature as to make it advisable to consider them, or act upon them at that session. These "good many subjects" were brought to Mr. Foster's attention by the manufacturers concerned in them, and they are interested in knowing the course of reasoning by which the Minister thinks it well to defer action upon them at one session, to be considered and acted upon subsequently. If the subjects required attention they should have received it, and the late hour of the session is no sufficient excuse for the neglect.

An excuse is offered for this neglect in the statement that it was "so soon after a somewhat general revision of the tariff;" and that it was not advisable "to again undertake any general revision." It is possible that Mr. Foster may have been asked to go into a general revision of the tariff, but as far as our knowledge goes no such request was made to him. It was not at the request of any manufacturing interest that we have any knowledge of, except that of the refiners that the change in the sugar schedule was made. But it was made, and that within a year after the enactment of the present tariff.

Our contention is this: The tariff is not immaculate; it contains incongruities, and these ought to be removed. If a boiler had been recently built it would be no excuse for not putting in a necessary rivet which had been omitted, to say that the construction of it had been so recently completed. In the recent revision of the tariff Mr. Foster and the Government builded as well as they knew, but it is no display of wisdom on their part to decline to remedy defects when pointed out to them. It is their duty to remedy them, and that promptly. Why not? No request was made to abandon the tariff and make a new one, but we know that the representatives of large numbers of manufacturers waited upon the Government time and again, and pointed out defects in the tariff which handicapped their industries very seriously. What they asked was that these defects might be remedied; and it is no comfort to them to be told by the Government that a general revision of the tariff was had but a couple of years ago, and that it is not expedient to make any changes at this time.

Mr. Foster said that the few changes he would consent to this year were not very important in themselves but yet of assistance in certain directions. If they were not important why make them? But the Minister tells us that strong representations had been made by the tanners in favor of placing degrass and stearine on the free list, and that in compliance

with these requests he would thus place stearine. He alluded to degrass, but he did not say he would place that article on the free list, simply because he had already done so. For a long time past the tanners have been urging upon the Government the necessity of placing degrass and stearine upon the free list, both these articles being named in all the requests made. Perhaps it was because the Minister had become weary in the oft repeated requests of the tanners that he placed degrass on the free list last year. It was represented to him at that time that stearine should have been included in the Order, but it was not, and there is a suggestion of stultification in placing stearine on the free list in 1892 when degrass was placed there in 1891. But Mr. Foster in his speech, did not explain why in placing stearine on the free list, he did not then mention degrass. Yet the refusal to put stearine on the free list in 1891 has protracted a long term of depression to the tanning industry, resulting in great loss of both time and money to the manufacturers.

The Government have evidently made a great mistake in treating the applications of the manufacturers with such indifference. Hundreds of them are staggering along under the handicapping and discouraging loads which they have to bear; and unless the prayed for relief is soon afforded some of them will be driven to the wall and their industries destroyed. This relief can be afforded in large measure by Orders in Council. Will it be done, or must the manufacturers suffer on until another session of Parliament, to be then told, probably, about late hours and the inadvisability of making changes so soon after the late general revision.

THE CUSTOMS ADMINISTRATION.

In another page will be found a communication from a correspondent regarding the administration of the Customs Department. It is from one of the proprietors of one of the largest manufacturing concerns in Canada, and if the writer shows considerable ardor in stating his views, it is because he has found by experience that heretofore representations to the Government on matters of the greatest importance to his industry have been quite as effective in obtaining the active consideration they deserved, as it would be to whistle against the wind with a like purpose in view. And the experience of our correspondent is the experience of very many who have of late years had any necessity of approaching the Minister with a view to having incongruities in the administration of the Customs Department corrected. But recently a large and influential deputation of Montreal merchants waited upon the Minister and represented to him the necessity of a more intelligent classification of certain lines of imports, and a more uniform appraisement of them at the several ports of entry. A case in point was presented, in which a particular class of cloths might be appraised for duty under two different clauses of the Act, according to the view of the local appraiser, although in one case the duty would be much higher than in the other. We have knowledge of many such cases. At one time Toronto merchants were charged 35 per cent. on jewelry boxes, as being a manufacture of silk n.o.s., because silk entered largely into their construction, whereas at Montreal such goods were passed

as jewelry boxes and as such charged with a duty of 20 per cent. For years, cuff buttons were imported into Toronto as jewelry, paying a duty of 20 per cent. until an appraiser declared them to be buttons n.e.s., and insisted upon a duty of 25 per cent. This same official also ignored the common-sense view that scarf-pins and breast-pins were not jewelry to be rated at 20 per cent., but were "pins" such as the ordinary toilet pins, to be rated at 30 per cent. The brilliancy of intellect of this official is dazzling; but when such rulings have been sustained by the Department for years, in face of the frequent and most urgent remonstrances of those interested, the lack of intelligence on the part of the higher officials to grasp such simple facts is indeed discouraging. So, too, when the tanners were seeking to have stearine placed on the free list. The matter was referred to a Dominion customs official, at Ottawa, to show what objections, if any existed, why this should not be done, and in his report he argued that inasmuch as stearine and tallow were so very similar in appearance, that to remove the duty of three cents per pound from stearine, placing it in the free list, would encourage the fraudulent importation of tallow, upon which the duty is one cent per pound. It did not seem to penetrate the brain of this official that his argument was a two-edged sword, nor that, because of the strong similarity of appearance of these two articles, stearine might be fraudulently imported as tallow, at only one-third the proper duty.

These examples illustrate the confusion constantly arising in business because of the red tapeism and indifference to the general weal that have for so long a time pervaded the Customs Department. Consequential and incompetent appraisers at different ports of entry make most ridiculous and mischievous rulings, and in spite of the incongruity and inconsistency of them they have been upheld by the Department to the great injury of business and the encouragement of the dishonest. Neither our manufacturers nor importers are as much interested in the rates at which certain duties are levied, as they are in the uniform application of them throughout the country.

Another very serious cause of complaint against the Customs Department is the neglect to take vigorous measures for the suppression of smuggling along the international line. We have knowledge of more than one Canadian industry which is in a languishing condition, and which is bound to go to the wall sooner or later for this cause. If the smuggling were done in an undiscoverable manner, and if it were impossible to detect and identify the perpetrators through any means at the disposal of the Government, blame might not attach to it. But this is not the case. We have occasion to know, and we know that the Customs authorities know, of transactions constantly occurring where large quantities of foreign goods are smuggled across the line. The attention of the Minister has been drawn to the circumstances time and again. Officers have been occasionally put on the track, and even some inconsiderable seizures have been made, and small fines inflicted, but the smuggling continues with almost absolute impunity, the chief excuse for failure to suppress it being the lack of adequate laws in the premises, and the great cost to be incurred.

Of course, both these excuses are unsatisfactory. If more laws are needed, the Government can easily enact them, and if the execution of them is expensive, they should be promptly

and properly executed nevertheless. It would be far better to suppress smuggling, no matter how great the cost, than to see manufacturers driven out of business and their employes thrown into idleness.

There is reason to hope, however, that under the regime of Mr. Chapleau, a new and more energetic order of things will be established in the Customs Department. If this hope is realized, our business men will experience a feeling of relief and freedom from annoyance and anxiety to which they have long been strangers. But red-tapeism and incompetency must be eliminated, and plain, common-sense business methods and energy made to prevail.

AS TO BEET SUGAR.

WHEN Finance Minister Foster moved the House into Committee on his beet root resolution continuing a bounty on beet sugar manufactured in Canada for the next two years, he explained that the bounty paid last year was about \$21,000, and that the extension was to afford a fair practical test as to whether the industry could be made a success in this country. In the discussion which followed, it was quite to be expected that those who are opposed to the encouragement of any home manufacturing industries should antagonize this proposition. Sir Richard Cartwright declared that it was "outrageous" and Mr. Scriver said that every attempt to cultivate beet root in Canada had resulted in failure, and other gentlemen opposed it on general principle, while a supporter of the Government, Mr. Weldon, acting evidently in the interest of the big sugar refiners, declared that it was an utter abuse of protection to grant the bounty, and that he protested against it. On the other hand Mr. Ouimet contended that it was a great success in other countries, such as France and Germany, and he saw no reason why it would not be a success in Canada. With such encouragement as was proposed there was no doubt but it would turn out to be a success, and that it would be a great injustice to those manufacturers who were induced to put their money in the business, as well as the farmer who was cultivating beet root, to withdraw the bonus from them at a time when the experiment was being carried on.

It is contended that the fact that the small bonus paid last year indicates that the efforts to induce the farmers to go into the business have not been successful, and that the granting of a bonus was an attempt to create an industry by hot-house methods. It is also contended that it is not within the power of the Government to guarantee the extension of a bonus over a number of years. Stress is also laid upon what Professor Saunders said in his report to the effect that the industry was not adapted to Canada.

The fact is, the production of sugar beets in Canada and the manufacture of sugar therefrom has been damned by the dish-water friendship of the Government. A blind man could readily discover where the colored man reposed in the fence corner, even if Mr. Weldon, representing the big refineries had not given the fact away. The knowledge that the sugar trust is opposed to the Canadian beet sugar industry is sufficient to show why the Government are strangling it out of existence. In Professor Saunders' report it is clearly shown that Canadian soil is quite well adapted to the cultivation of the beet, his

objection being that if the industry were established to the extent of producing all the sugar the country required, the bonus to it would involve the payment of several million dollars. Opposition for this reason is, in our opinion, ridiculous if not silly. It is possible that under exceedingly favorable circumstances Canadian farms might be made to produce beets enough wherewith to manufacture all the sugar we might require. This might be said also of some other things, wheat for instance, but the fact that in the face of our large ability to produce wheat we import considerable quantities of that article and flour, shows the small value of Professor Saunders' opinion, which is only an opinion.

As to the power of the Government to grant a bonus, and to extend it over a series of years, they certainly possess this power quite as much as they possess the power to grant a bonus to the pig iron industry and to extend it over a term of years, or to impose tariff duties specially intended to protect and encourage home manufacturing industries. The same as with pig iron, if the iron, or the sugar is not produced, no bonus is paid.

In considering the matter, the first questions to be asked are whether the industry is possible and whether it is desirable to establish it. Both these have been answered in the affirmative. From what we know of what has been done and is being done in other countries, and from what Professor Saunders tells in his report, the country is satisfied that the industry could be established on a paying basis, and from what the Government have done and are doing, we know that they think so too, and that it would be well to give the enterprise Government sanction and support. But such support. Sensible men know that such an industry cannot be established in one or two years—they know that the policy or system that might call it into existence must be guaranteed to it for a period long enough to enable it to become established on a permanent footing. The United States Government estimated that fifteen years would be required to establish the industry in that country, and they shaped their legislation accordingly. It would require quite as long time in Canada. It would be necessary for capitalists to know that the system encouraging the industry would be permanent for that length of time, and that it would not be possible to abbreviate it. But the pale and faint friendship of the Dominion Government could only do just enough to encourage the hope that substantial aid would be given at some time, but not enough to induce capitalists to put money into it. Its help is like the cutting off of the dog's tail, piecemeal.

The situation does not require any weak imitations of American methods. If we are to follow the lead of that country in bonusing the manufacture of beet sugar, let us follow it to the extent of offering an equal bounty and the continuance of it for quite as long a term of years. Otherwise the attempt had better be abandoned.

CANADA'S Finance Minister's policy of tariff retaliation against the United States, may be compared to the squeaking of a mouse against a peal of thunder. The McKinley tariff discriminates against nearly all Canadian agricultural and lumber products, and Mr. Foster gets even by imposing a duty of five cents per dozen upon eggs.

THE N.P.'S FOOL FRIENDS.

A FOOL friend can often do a cause more harm than its open and avowed enemies. This fact is frequently forced upon us, but never more glaringly than in what the *Empire* has to say regarding Mr. Andrew Carnegie and the labor trouble at Homestead. In a recent issue it agrees with Mr. T. V. Powderly—head of the Knights of Labor, in saying that the man who preaches fraternity and equality, who avows hatred of monarchs and aristocrats, who makes gifts to libraries, who lectures upon republican simplicity and freedom and who writes books upon the blessings of American freedom, as Mr. Carnegie does, is nothing more nor less than the embodiment of triumphant hypocrisy. Taken alone, this agreement of opinion between Mr. Powderly and the *Empire* is not a matter of much concern; but when the *Empire* resorts to deliberate misstatements which involve the morality of the very system of government of which it professes to be the Canadian champion, the facts will bear criticism.

The *Empire* formulates some charges against Mr. Carnegie as follows: "This man, who made an immense fortune out of the American Republic, is now spending it abroad." "When he makes the professions of American patriotism for which Mr. Carnegie has been so remarkable, and then treats his workmen as this man with an income of \$1,000,000 a year has recently been doing, we cannot blame those who criticise him, and do it in the severest manner possible." "Mr. Carnegie makes his pile of money out of popular labor, grinds wages down to the uttermost point, combines with his fellow capitalists and forms a trust which increases the price of his products to the consumer, and then retires to a mansion in Washington, fashionable leadership in New York, or a castle in England and a shooting place in the Scottish Highlands. Meantime his employes at Homestead may be living in squalor or locked out in order to enforce lower wages. Such appears to be the partial state of affairs in American centres at the moment." "While very few persons or papers attempt to defend the bloody and cruel treatment of the Pinkertons by the workingmen at Homestead, there is a universal condemnation of the Carnegies for bringing the detectives there." "Mr. Powderly claims that 'when neither municipality, State or nation was appealed to, and when outlaws appeared before the city of Homestead bearing arms under no shadow of law or right, the workingmen were justified in meeting them on their own ground.' This is the extreme labor view, and is based upon the assumed fact that these men were brought down to coerce the strikers, who had no intention of injuring the property or interfering with the works generally." "Much that is said by Mr. Powderly and others about the hypocrisy of Andrew Carnegie is most fully justified."

The constitution of the United States, like that of Great Britain and Canada, guarantees to every man the peaceable possession of his property. The Carnegie property at Homestead falls within this guarantee. The men who worked there were free men, and they were under no obligation to give their services except upon terms satisfactory to themselves. They possessed no right to enforce a demand for higher pay than their employers were willing to give. Under their constitutional rights the Carnegie Company were privileged to decline to

accede to the wage scale demanded by the men; and they were privileged to contract with other workmen with whom to carry on their business. And they were also privileged to protect their property from destruction and their employes from violence while in the discharge of their duties. In the dispute that arose regarding the wage scale the pay of less than one-tenth of the employes was affected, and that to an inconsiderable extent. All these employes were members of the Amalgamated Association of American Iron Workers. When they refused to work on the terms proposed by the company, the company employed other men and attempted to place them in their works. This they had an undoubted right to do. The strikers attempted to prevent the new men going in, and did prevent them. They did more than that. They took possession of the works and declared that no business should be done until their terms were complied with. At this stage of affairs Mr. Frick called upon the local authorities to put him in possession of the company's property and to protect him in the peaceable holding of it; and to protect his workmen from the violence threatened by the mob of strikers. The sheriff declared his inability to do this. An appeal was then made to the Governor of the State, and, to his shame be it said, he refused to respond. Then the services of the Pinkertons were called for. They were embarked upon scows, several hundred of them, the intention being to land them on the wharves belonging to the company, and within the enclosure of the Homestead works; and it was while an effort was being made to do this that the strikers fired into the scows with cannon, rifles and small arms, killing and maiming large numbers of these defenceless men. These Pinkerton men did not go to Homestead to commit any assault upon the strikers, nor to interfere with or molest them in any way, further than to assist the Carnegie Company to regain and hold possession of their property. The strikers were committing unlawful acts, and were trespassing upon and destroying property of the company.

It is not to be expected of the *Empire* to give a plain statement of these facts, but all honest, fair-minded men will agree that Mr. Frick and the Carnegie Company were acting clearly within their rights when they were defending and protecting their own property, or attempting to do so.

Why, then, in connection with this matter, has Mr. Carnegie's private affairs to be considered? Suppose he does hate monarchs and aristocrats, gives gifts to libraries or takes his case in Scotland, why should the *Empire* object? If he has made an immense fortune out of the American Republic, what has that to do with the mob of strikers butchering helpless men? Why should the *Empire* "criticise him in the severest manner possible?" This, though, is but an ebullition of idiotic anger used to conceal an attack upon the American tariff. It knows that the Homestead workmen do not live in squalor. It knows that both the local and State authorities were appealed to to maintain the peace and to protect the company in their rights. It knows that the strikers were the violators of the law and the murderers of the men killed in the lamentable outbreak.

It is impossible to fathom the reason, if it has a reason, of the *Empire* to work so persistently to break down the cause of protection in the United States, while it obtains its bread and butter by pretending to uphold the cause of protection in

Canada. If it is capable of reasoning, it might know that the only difference in the policies in the two countries is in the details entirely, and that if the policy should be defeated or destroyed in the United States, the same fate would very quickly overtake the N.P. As a party paper, it may consider it the correct thing to quote from Democratic papers showing the impoverished condition of American farmers, and how even the employes in the best money-making trades in that country live in squalor. We know that the *Globe* constantly makes such statements regarding Canada, and that the *Empire* spends much space in contradicting them; but people who read and think and observe attach no importance whatever to such stuff. The folly of the attack on the American tariff, and on Mr. Carnegies as a representative American manufacturer, is seen in the statement that Mr. Carnegie and his fellow capitalists "form a trust which increases the price of his product to the consumer" when we know that many of the products manufactured by the Carnegie Company are consumed in Canada bought at prices with which British manufacturers are entirely unable to compete. That sort of stuff may be palatable reading in the vicinity of Owen Sound and other outlying districts, but intelligent people who keep themselves posted are disgusted with it.

Canadian manufacturers understand that the N.P. is essential to their prosperity and success, and the *Empire* knows that the support of these manufacturers is essential to the party which uphold it. They are disgusted, then, to see a paper which makes such loud professions of friendship for the N.P. doing all it can, to destroy a similar policy in a neighbouring country. It plays the part of a fool friend.

EDITORIAL NOTES.

THE United States can make canals, but it cannot duplicate the St. Lawrence river.

ABOUT this time the Dominion Government would do well to hasten the work on the Canadian ship canal at Sault Ste. Marie. Push it.

THE St. Lawrence river is a Canadian institution from Ogdensburgh to the Atlantic ocean. Will our American friends please note the fact.

THIS would be a favorable time for the State of Maine to dissolve the political ties which bind her to an oppressive "retaliation" scheme, and again connect herself to the continent to which she belongs. Come.

SIXTEEN of the largest cordage manufacturers in England have combined and formed the Hemp, Yarn and Cordage Company, Limited, of London, Leeds, Manchester and Hull, with a capital of £300,000. This in free trade Britain.

THE London *Advertiser* has succeeded in capturing the ad. of a Canadian manufacturer of baking powder, and now that paper sings quite low about all papers in the Canadian Press Association forming a trust or combine to force the removal of the duty on that article.

THIS is an exceedingly favorable time for the Dominion Government to meet the coquettish advances of the United States by imposing a duty of \$200. per ton upon nickel contained in the ore and matte exported from Sudbury. One good turn deserves another. Impose the duty.

IN our issue of June 16th, some editorial comments were made anent an article in the *Montreal Herald* based on a communication in that paper over the non do plume "An Overburdened Householder." We are in receipt of a communication presumably from the same writer, but as he did not give his name and address, we cannot publish it. He should know that this rule is imperative with all respectable journals.

IN warfare it is considered almost criminal to make a mistake. The McKinley tariff was an act of commercial warfare against Canada, intended to force us into measures against the better judgment of the country, and Mr Foster felt it his duty to meet the emergency by similar legislation. The United States would have been hurt if we had imposed an export duty upon nickel and saw logs, and Canada would have been benefited, but instead of that, an import duty of five cents per dozen is imposed upon Yankee eggs.

THE Washington treaty allowed American lumbermen who cut timber in the forests of northern Maine, to float it down the St. John river through Canadian territory, duty free, to be delivered at American ports. This is a valuable privilege which American lumbermen have ever since enjoyed. When the American Government violated the spirit of the treaty was the correct time for Canada to have abrogated it. Not having done so then, the issuance of President Harrison's "retaliation" proclamation would be the appropriate time to declare the treaty "off."

DURING the navigation season of 1891, Canadian vessels carried 314,480 tons of freight through the American canal at Sault Ste. Marie. During the same season, American vessels carried from one American port to another American port, through the Canadian Welland canal, 563,856 tons of freight, and besides this they carried large quantities of freight to and from Canadian ports. A tax of \$2 per ton on all freight carried by American vessels through the Welland canal would considerably more than pay the proposed American tax on freight carried by Canadian vessels through the Sault Ste. Marie canal. It is a bad rule that does not work both ways.

THE *Empire* finds plenty of opportunity to make mouths at Andrew Carnegie, because he is a wealthy American manufacturer who made big money out of the American tariff, and spends it like a prince in England. But it never finds an opportunity to make similar remarks about a Canadian sugar manufacturer who has also made big money out of the Canadian tariff, and spends it like a lord in the Old Country. It also finds opportunity to denounce what it considers weak places in the American tariff, but it never, no never, raises its voice to suggest remedying incongruities in the Canadian tariff, which are choking the very life out of some of our manufacturing industries.

WHEN an enlightened public journal of the Mugwump persuasion undertakes to discuss an economic question, you should just hold your breath and listen. Our esteemed *The Week*, taking the part of those who would destroy the industry of any Canadian manufacturer who does not advertise his business in Canadian newspapers, whether it would be to his advantage to do so or not, says:—

The question, as we understand it, is simply whether the legitimate aim and effect of a protective tariff should be to prohibit importation and establish monopolies. This is what we infer has been done in the case of baking powder.

As far as the N.P. is concerned, the question answers itself. The Canadian tariff does not prohibit the importation of any article, and it does not establish any monopoly. In saying this we are simply imparting information that almost any school-boy might give, although *The Week* seems to be groveling in darkness. It should wake up.

ONE of the most potent factors in stirring up this canal retaliation business in the United States, has been the Ogdensburgh Navigation Company, a concern doing business at Ogdensburgh engaged in freighting grain and other produce from Lake Superior ports through the Sault Ste. Marie and Welland canals, to American ports on Lake Ontario, and in which business they employ a large number of their own steamers. This company seem to think that they can maintain their business without interruption, using the Welland canal as heretofore, while their Canadian competitors are barred out of the trade by the retaliation tax of \$2 at Sault Ste. Marie. If the retaliation law is enforced, the Ogdensburgh Navigation Company's steamers would probably have to make Buffalo the eastern terminus of their trips, or else confine them to local traffic on Lake Ontario. They might, however, find their way through the Welland canal by paying a heavy tonnage tax on the cargoes they might carry.

WHEN the Washington treaty was entered into, in which American vessels were granted the same privileges as Canadian vessels in Canadian canals, it was also stipulated that Canadian vessels should enjoy equal privileges with American vessels in American canals. The spirit of this arrangement has never been observed by the United States Government. As far as the Erie canal is concerned, Canadian vessels may probably pass through it, but they are not allowed to carry any cargo, the navigation law of that country requiring that the Canadian vessel shall discharge cargo at the first port reached, and that no Canadian vessel shall carry cargo from one American port to another. When the United States Government raised this barrier against Canadian vessels, was the time when Canada should have declared the treaty "off." Having missed that opportunity, as soon as Mr. Harrison intervenes his "retaliation" proclamation will be the time for Canada to announce that the terms of that treaty are no longer binding.

ACCORDING to Poff's *Manual* of the railroads in the United States for 1892, the total railroad mileage of railroads in that country, at the close of 1891, was 167,909 miles. Its cost, measured by the amount of stocks, bonds and debt, was \$10,765,626,041. The gross earnings were \$1,138,024,459, an increase over 1890 of \$40,177,031; the net earnings, \$356,-

227,883, or 31.30 per cent. of the gross. For interest, \$231,259,810, and for dividends, \$90,719,757 were paid. The passengers carried by all the roads aggregated 556,015,802, about nine times as large as the population of the country. From these \$290,799,696 were received, the average charge per passenger per mile being 2 1/4 cents. Freight tonnage in 1891 equalled 704,398,609 tons, each hauled 115.29 miles, or 81,210,154,523 miles for all. At an average rate of 0.929 mills per ton per mile, this traffic earned for the railroads \$754,185,910. A full report of every company contributing to the enormous aggregate is given in detail in the *Manual*.

A FEW days ago the Ottawa correspondent of the *Toronto Globe* said:—

The brisk movement of Ottawa lumber to the United States the past month is due to the scarcity of white pine lumber in the Northwestern States. That is, of course, dry stock. The dealers at New York, Albany, and other retailing points are unable to get a carload or a boat-load of dry inch white pine of United States manufacture, and so they come to Ottawa. The explanation of the scarcity is said to be the small stocks on hand in the yards at the close of last season and the wet weather this season, which delayed the cut. With the demand the price of Canadian pine has gone up.

Another account attributes the demand to the growing scarcity of the standing timber in the Michigan, Wisconsin and Minnesota forests. In a recent debate in the House of Commons it was shown that while uncounted millions of feet of Canadian logs were being towed across the lakes to keep American saw mills in operation, hundreds of Canadian mills were closed and the employees scattered for this very cause. The protection the Canadian interest had was ruthlessly destroyed at the demand of the McKinley tariff, and the export duty on Canadian logs repealed. We repair the damage, however, not by re-imposing the export duty, but by imposing a duty of five cents per dozen on Yankee eggs.

SPEAKING of President Harrison's proposition to exclude Canadian shipping from the Sault Ste. Marie canal, the *Boston Herald* says:

All of the manufacturing interests of Massachusetts are vitally concerned in maintaining unrestricted transit connections with and through Canada. It may be that, on the whole, Canada would suffer more than the United States by a retaliatory warfare, but, unfortunately, the sufferings of the United States would not be averaged among its people, but would fall with terrible intensity upon those dwelling in a limited section, and nowhere more than upon the people of eastern Massachusetts.

We hold our own in western trade matters in consequence of the transportation facilities we obtain through the competition of Canadian railroad companies. If it were not for these, we should be substantially bottled up, and quite a part of the trade that we now possess would go to New York and Philadelphia. Our freight rates to and from the west are now made to approximate with districts lying in and around New York and Philadelphia solely because the New York Central and the Pennsylvania companies are aware that if they were to put up these freight charges, the merchandise would be sent via Canada. But once shut off Canadian competition, and then there would be no need considering our complaints, nor could we be sure, under inter-state regulations, of obtaining the advantages we now possess.

That this bolting-up process has not been carried to

the extent of cutting off a great deal of our trade with the west and north-west is due largely to Canadian competition, and yet these advantages which the Canadian railroads extend to us are those which President Harrison intimates should be cut off. It is pretty clear that he could get a little enlightenment upon certain points in which he is mentally dark if he were to come to Boston and talk for a little time on this subject to a number of our leading merchants.

WHEN the Dominion Parliament adjourned on July 9th, it had been in session, with various brief adjournments, ever since February 25th. The time was exhausted chiefly in political quarreling, the only legislation had in which any of the manufacturers were interested being the few changes in the tariff heretofore alluded to, and these changes occupied the time of the House barely an hour. The *Empire* in reviewing the work of the session speaks of the bye-elections having "snatched from the Opposition their ill-gotten gains of 1891" which "gave the Ministry an almost unparalleled majority," and that the session "demonstrated the soundness of the Government's financial policy;" and that "the trade policy of the Government has been vindicated." If we may judge from the facts, the "almost unparalleled majority" spoken of is likely to result in an almost unparalleled disaster to the manufacturing industries of Canada, and will do so if more time is not given to considering the welfare and necessities of those industries that was allotted to them during the last session. With a full two-thirds majority behind them, the Government could find no time to consider the suggestions for tariff changes made by the manufacturers, although they were repeatedly made aware that some industries were suffering, and that the necessity for changes in their behalf were imperative. If the Government's financial policy is considered "sound" when they can find no time to lend a helping hand to suffering industries; and if it is a vindication of their trade policy to see manufacturing industries in a condition of collapse, we think it would be better to change both policies. They should be made more practicable. The theory of the N. P. is all right, but the "unparalleled majority" are jeopardizing it by ignoring the necessities of the manufacturers.

THE *Petroleum Advertiser* points with pride to the fact that according to the Inland Revenue returns, the consumption of Canadian refined oil last year reached 240,661 barrels, the largest quantity of refined oil that has ever been inspected in one year. Allowing 50 gallons to the barrel this would be a little more than 12,000,000 gallons refined oil as the product of Canadian refineries. On the other hand our imports of coal oil, naphtha, petroleum, etc., amounted in that year to over 5,000,000 gallons, upon which some \$375,000 duties were paid. It looks as though the tariff required some modification in this direction. Canadian petroleum makes a good lubricant but not a satisfactory illuminating oil; and the duty upon American refined illuminating oil partakes largely of a duty for revenue only. The duty upon lubricating oil is sufficiently high to protect the Canadian industry, and a strong demand is being made to have American crude petroleum placed on the free list, or the duty greatly reduced. If this should be done it would be a great relief to manufacturers who use or would use the article as fuel, but which they are now prevented from doing

because of the duty of seven and one-fifth cents per gallon. Oil fuel, or gas manufactured of oil, is fast taking the place of other fuel in the United States, and inasmuch as it is cheaper than any other fuel. Canadian manufacturers are handicapped in their operations because of the higher cost of petroleum here, caused by the duty. Canadian producers and refiners might object to any abatement of the protection they enjoy, but this might be overcome by regulating the refining of American oil in Canada, and imposing an excise duty upon its production. The matter certainly deserves the attention of the Government. It would be in the interest of manufacturers inasmuch as it would materially lessen the cost of their fuel; and they would also be benefitted by a cheapening of the price of lubricants.

It is pointed out by a contemporary that Andrew Carnegie, the chief owner of the Homestead works, about the lock-out in which so much trouble has arisen, was a poor boy when he arrived at Pittsburg with his parents from Scotland and began life as a telegraph messenger. When he had earned and saved a little money he bought an interest in a small foundry, and he made his first million in the manufacture of steel rails. To-day he is the largest manufacturer of pig iron, steel rails and coke in the world. He has a house on Fifty-first street, near Fifth avenue, in New York, a residence in Pittsburg, a summer house in the south, a Highland castle in Scotland, and an English manor near the Ascot race track, where he is living at present. He owns iron furnaces, mines, railroads, and a syndicate of English newspapers. He is said to be worth \$25,000,000; but he never could have made that amount if he had not been favored by the so-called "protective" tariff at the expense of his fellows. The fact that he decrees a 30 per cent. reduction in the wages of his skilled employees in a year after he had the tariff raised to especially benefit him is proof positive that the average "protection" made millionaire is no believer in the high tax newspaper doctrines that high tariffs on imports must and do always keep wages high.—*London Advertiser.*

For unadulterated mendacity such as the above, look for it in a hightoned good newspaper such as the *Advertiser*. Mr. Carnegie did not make his first million in the manufacture of steel rails, and to-day he is but one of a large number of men included in the companies with which he is connected, engaged in the manufacture of pig iron, steel rails, and coke. His wealth was not acquired in any industry specially favored by the tariff—he is a large shareholder in the Standard Oil Company, and it was through the operations of that company he made most of his money. Only an ignoramus would assert that Mr. Carnegie's company had "decreed" a 30 per cent. reduction in the wages of his skilled employees. Less than 10 per cent of his employees were affected by the reduction, and the reduction did not amount to more than 10 per cent. on previous wages.

THE *Empire* is about the gayest and most frisky advocate of Canada's policy of tariff protection extant, and what it cannot do in the way of encouraging it is not worth doing. It publishes a list of what it calls "huge" trusts now in operation in the United States, with the duty levied by the McKinley tariff upon similar articles from abroad, and calls attention to the fact that under unrestricted reciprocity Canada would have to assume the same rate of duties against Great Britain, and that this "would involve the bondage of

our farmers and consumers to the huge monopolies, trusts and combines," of which it gives specimens. Included in the *Empire's* list are the following articles with the McKinley duty on them:—Axes, 45 p.c.; brooms, 40 p.c.; buttons, 25 to 400 p.c.; cartridges, 45 p.c.; cordage, 7-10 to 2½ p.c.; linseed oil, 32 cents per gallon; sanitary ware, 55 p.c.; steel rails, \$13.44 per ton; wall paper, 25 p.c. But the *Empire* failed to show that many or all of these articles, although burdened with the duties enumerated, can be and are imported into Canada in large quantities from the United States, instead of from Great Britain, where free trade prevails. Of course this can only be because under the stimulus of high protection strong competition has made them cheaper there. These articles are not imported into the United States because the duty keeps them out, but the Canadian duty does not keep the American products out of our market because it is not high enough. Such duties as we have have encouraged the manufacture of most of these articles in Canada, but in the article of steel rails, upon which we impose no duty, never a ton of them has ever been made in Canada because the industry has never been protected. It may be in accord with the *Empire's* policy (?) to cultivate hatred of the United States, but it fails to create any admiration of or enthusiasm for the N. P. by endeavoring to depreciate the protective policy of that country. Both systems are identically the same, varied only by the supposed necessities of the respective Governments.

THE *Toronto Globe* is never happier than when abusing the tariff and Canadian manufacturers, in pointing out how the tariff encourages monopolies and how monopolies gnaw the very life blood out of the people. It is refreshing, then, for it to allude to the present cheap price of sugar as being "unfortunate." In its review of the market a few days ago it said:—

It was rather unfortunate for dealers that just when the fruit season, in which an active demand for sugars is always experienced, had arrived, a large local house should have cut the price of granulated. The wholesale trade consider that they make little enough out of sugars without being forced to cut away the profits entirely in order to meet a reduction which means sugars at cost. However, the retailers throughout the country are getting the benefit of the cut in prices, and it is to be hoped the consumer will also share in the advantage. Other dealers have also reduced their price in cases where it became necessary to retain customers, and the local market is a good deal unsettled in consequence. This is the season above all others when there should be in the wholesale interest unanimity in prices, and the present state of affairs tends to make some of the dealers regret the abolition of the schedule of prices of the guild, under which the present cutting would have been impossible. It is a remarkable fact that granulated sugars are now cheaper in Toronto than they are in New York. In the latter city the price is 4 3-8 cents net cash, while here there is a liberal cash discount up to a certain date.

We do not consider the situation as at all unfortunate—for consumers—but it is nevertheless rather remarkable. The fact is, the American sugar trust has brought it about by forcing up the price of sugar; a singular feature of it being that Canadian refiners are availing themselves of the opportunity to sell sugar to profitable advantage in American cities. Under the McKinley tariff all sugars net above 16 degrees D.S., is admitted duty free, while in Canada free sugar is limited to No. 14

D.S. Sugar above No. 14, up to No. 16, is a desirable grade of yellow which is in much demand because it is edible and also cheaper than granulated. Canadian refiners, therefore, can afford, during the reign of trust prices in the United States, to send their yellow sugar there, going in duty free, and command better prices than could possibly be obtained for it in Canada.

ONE of the Canadian journals noted for support of the Dominion Government's canal policy, the CANADIAN MANUFACTURER, finally admits that there is discrimination against American ports and in favor of Canadian ports. Such an admission is all that is needed in the canal controversy. At no stage of the controversy has it been claimed by anyone acquainted with the subject that there is any direct difference in the treatment accorded Canadian vessels and vessels of the United States passing through the canals. The discrimination in favor of Canadian ports and against American ports and American citizens through the medium of canal tolls is what is complained of. This being the case then, President Harrison's recommendation of a retaliation by means of a system of tolls at the St. Mary's Falls canal that will discriminate against Canadian ports, is certainly sound in every particular. As had been expected the new order in council from the Canadian authorities a few days ago amounted to nothing. It was simply for the purpose of correcting a mistake in the order of April 4 last, relative to grain shipped through the canals from American ports on Lake Ontario. The whole question remains just as it was previous to the recent reciprocity conference.—Cleveland, Ohio, *Marine Review*.

We hope at some time to get some of our American contemporaries to look at this question as a whole instead of a detail, and the *Marine Review* is urged to so consider it. The equal use of the Canadian and American canals was guaranteed to both countries, the consideration being that no discrimination should be shown on either side. Under the treaty Canada was entitled to the free use of the Erie canal, but a subsequent Act of Congress made that privilege impossible, and it comes with bad grace from our American friends to throw stones at Canada when they themselves live in glass houses. Canada is ready and willing and anxious to stand by and carry out the agreements of the treaty, but all of them must be observed. Fair play is a jewel which does not in this instance adorn the bosom front of Uncle Sam's shirt. An American vessel may load a cargo at the port of New York and deliver it at the port of Ottawa,—using both American and Canadian canals, but the United States Government will not allow a Canadian vessel to do just that thing. This is a fact, not an admission, and the consideration of it is of the most vital importance in discussing the canal controversy. We would like to have an expression from the *Marine Review* on this point.

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.

DO YOU WANT A GOOD BOOKKEEPER.—I will be open for an engagement in a few days, am twenty-one years of age, can keep a neat set of books (double entry) and can give a

correct financial statement, am well acquainted with banking Custom house work, and office routine generally. My testimonials as to character and honesty are of the best. Address B., P.O. Box 818, Montreal.

ADMINISTRATION OF THE CUSTOMS DEPARTMENT.

To the Editor of THE CANADIAN MANUFACTURER.

SIR,—I have read with interest your remarks about the manner in which the Customs Department at Ottawa manage or mismanage with the tariff. I endorse with interest all you say, and could, I feel sure, prove all you assert and more.

The tariff was made first to encourage native manufactures, and second, to raise revenue.

Cases are innumerable where the tariff, as now arranged, does not encourage any native industry nor does it produce any revenue.

Deputation after deputation have appeared before the late Minister of Customs, who received them politely enough, of course, but to no purpose. The Department has been managed, or rather mismanaged, for years by a set of officials who have made it to stink in the nostrils of the people. Talk of justice and right!

Case after case may be proved wherein the Department officials have, under pretence of obeying the law, robbed citizens of their money, and no redress other than a costly law-suit was left for them; while if a citizen is caught breaking the customs law, even though it be by mistake, he is at once seized and his property impounded.

I have, Mr. Editor, no words strong enough with which to express my opinion of the working of this Department under the management of the late Minister of Customs, but I believe the present Minister has that knowledge of the public sentiment which impresses upon him the fact that such things are a danger even to the strongest Government. Consequently all that is necessary to do is to place before him such facts as will convince him that the complaints made have a substantial foundation of facts. I am, yours truly,

CANADA.

THE August number of *Good Housekeeping* is worthy of a careful inspection by every manager of a household, since it aims at all seasons of the year to aid in those duties which are indispensable, without reference to season or temperature; to make the home bright and interesting. There is in this issue, perhaps, less than usual of the merely technical and routine, with more of that which pertains to the general life; but the various departments will as ever be found well balanced, and fascinating, from the illustrated poetical frontispiece to the puzzle department which has space in the closing pages. Some of the good things in it include Miss Parlon's indispensable paper on "Many Meals for Many Millions," the other serial articles being those on "The Expert Waitress," "The Children of the Household," "Herbs and Simples," "The Household Laundry," "The Food of the People," and "Hand-made Laces." Clark W. Bryan & Co., Publishers, Springfield, Mass.

The *Illustrated World's Fair* for July makes a leading feature of the sculpture on the Electric Fountain, which is to be the largest in the world. There are six great pictures of this work, the crowning triumph of Sculptor MacMonnie's art. Ex-President Hayes writes the leading article, and James H. McVicker, the celebrated theatrical manager, contributes an essay on the drama, with his photograph. Dr. W. T. Meloy, a charming sketch writer, gives his masterpiece in "A Convict's Self-Denial." Charles Gilbert Davis offers medical advice to intending visitors. Major Ben. C. Truman, a great authority on vintages, writes about Sherry Wine. Mrs. Louise A. McGaffey publishes a page poem, "Columbus," which has been in preparation for many weeks. C. Frank Dewey furnishes an article on Bismarck, with a striking picture of the Iron Chancellor at home. Pictures of the buildings, poems, quips, rhymes, the Durborow bill, and Exposition news complete a beautiful and valuable number. Next month, Franklin E. Denton's great poem. J. N. Halligan, McVicker's Building, Chicago. \$2.50 a year; twenty-five cents a copy.

THE *Canadian Textile Directory* is a reference book containing the names and addresses of all manufacturers and dealers in the textile trades of Canada. It embraces cotton, woolen, knit goods, carpets, silk, jute, flax, felt, rubber and asbestos goods; clothing, haberdashery, ladies' wear, buttons and feathers; job dyeing establishments and laundries; furniture, upholstery and upholsterers' supplies; sails, tongs and awnings; window shades and

wall-papers; manufacturers and dealers in hats and furs; paper mills; dealers in wool, cotton and furs; manufacturers and dealers in dyestuffs, etc. It gives a list of manufacturers' agents, commission merchants and dealers in dry goods. Also, statistics, imports and exports, customs tariff of Canada, Newfoundland and United States, Canadian Boards of Trade, textile associations, etc. The publisher, Mr. E. B. Biggar, Montreal, has sent us a copy of this most useful directory, made in first-class style, printed on best paper, and handsomely and substantially bound. Any one in any way interested in any of the lines above alluded to would do well to obtain the book. Price, \$3.

Outing for August is filled with pleasant, breezy matter of a seasonable nature, and, as usual, sparkles with many beautiful illustrations. The contents are as follows: "Around the World with Wheel and Camera," by Frank G. Lenz, illustrated; "August Rides," by Jessie F. O'Donnell; "Aunt Abe's Fishing Party," by Jennie Taylor Wandle, illustrated; "Saddle and Sentiment" (continued), by Wenona Gilman, illustrated by Stull and Watson; "From the German Ocean to the Black Sea" (continued), by Thomas Stevens, illustrated; "The City in the Valley," by Matthew Lester; "The Shadow of Revenge," by Louise Dupree Mitchell; "Off to the Moors of Bonnie Scotland," by Claud Prescott; "To the Crest of Mount Mansfield," by W. C. Gaynor; "The Military Schools of the United States," by Lieut. W. R. Hamilton, U.S.A., illustrated; "Saddleton's Illusion," by President Bates; "A Three-Mile Run," by Welland Hendrick; "With the Iowa Chickens," by Ed. W. Sandys, illustrated; "Harry's Career at Yale," (continued), by John Seymour Wood, illustrated; and the usual editorials, poems, records, etc., etc. The Outing Company, 239 Fifth Avenue, New York.

The August *Wide Awake* is a veritable vacation number, and indeed is so labeled upon its cover. It is especially noticeable for short, practical papers on out-of-door doings: "How I Botanize," Annie Sawyer Downs; "Starboard and Port," Captain Julius A. Palmer, Jr.; "Let's have a Fire," Willis Boyd Allen; "How not to get Lost," Prof. Charles E. Fay; "Hints for Trampers," Charles M. Skinner; "How to put paddles on a Rowboat," Vesper L. George, and such summer articles as "Sport in the Water," by Alexander Black; "A Mountain Pageant," by Mrs. A. G. Lewis; "The Sea-Serpent," by Dr. Samuel Kneeland. The frontispiece is a reproduction of the fine portrait group by Sandham, "Gather ye lilies while ye may," that was so much admired in the Exhibition before it was sent to the home of the Canadian children it represented. There is a capital story of camping out, "French Leave," by that breezy story-teller, Gertrude Adams; Margaret Sidney has a striking and dramatic story of life in the "Sky Country" of North

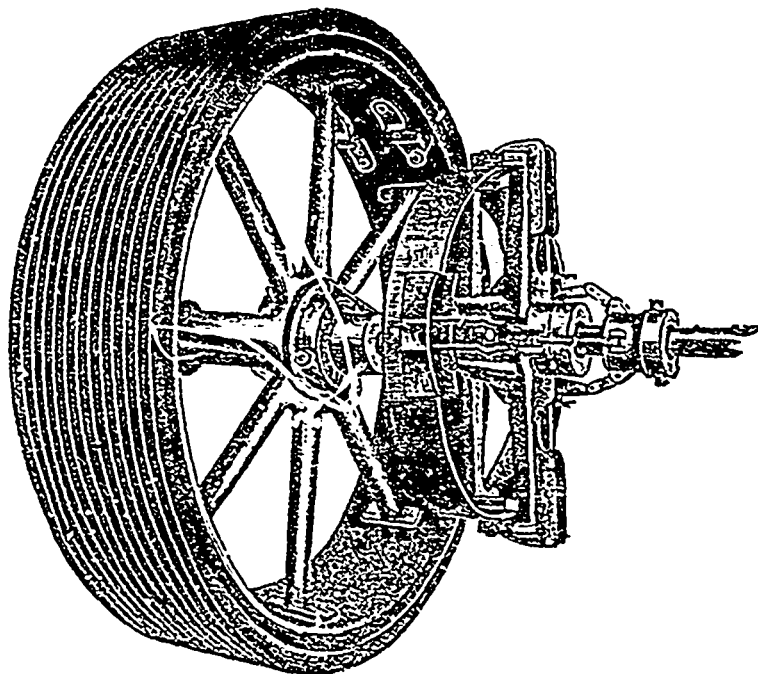
Carolina, "Trypheny's Bicycle"; Robert Beverly Hale contributes "In a Thunderstorm" to the Fair Harvard Series of stories, and Willis Boyd Allen has a characteristic story of life and adventure on an ocean steamer. The vacation *Wide Awake* is surely well fitted to be a real vacation companion. Price 20 cents a Number, \$2.40 a year. D. Lothrop Company, Publishers, Boston.

The August number of *Scribner's Magazine* is that annually welcome feature of the summer season, "The Fiction Number." This year it contains an unusual assortment of stories—no less than seven in all. Among the popular writers who contribute stories are: Mrs. Burton Harrison, Octave Thanet, T. R. Sullivan, H. C. Bunner, and Duncan Campbell Scott. Four of the stories are illustrated, each by a single artist chosen with reference to his special fitness to deal with the particular characters and scenes. A. B. Frost illustrates Octave Thanet's Western story, "The Besetment of Kurt Lieders;" W. T. Smedley, Mr. Bunner's "As One Having Authority;" Chester Loomis, Mr. Scott's Canadian story, "The Triumph of Marie Lavolette;" and C. Delort, of Paris, Mrs. James T. Field's charming version of Maurice de Guérin's famous and beautiful prose poem, "The Centaur." In addition to the stories there are several articles in other fields than that of fiction, but likely to afford no less entertainment. Mr. Walter Besant, the novelist and historian of London, contributes an article on "A Riverside Parish," in the series on "The Poor in Great Cities," that tells of the development and growth of an out-of-the-way and rarely-visited region of London. The many illustrations are by Hugh Thomson, and were made under Mr. Besant's direction. The late Sidney Dillon, whose executive ability, thorough faith in the enterprise, and substantial support largely contributed to the completion of the Union Pacific road, finished, only a few weeks before his death, the "Historic Moment" on "Driving the Last Spike of the Union Pacific," which appears in this number of the *Magazine*. Professor N. S. Shaler's article on "Icebergs" gives a history of the origin and travels of these beautiful and often dangerous products of the great North.

HENRY WARD BEECHER'S remonitions, his last day on earth and his death are the subjects of Mrs. Beecher's concluding paper on "Mr. Beecher As I Knew Him," in the August *Ladies' Home Journal*. The wife of New York's famous lawyer, Mr. William Maxwell Evarts, is the subject of a delightful sketch, with portrait, by Lillian Wright, and Kate Upson Clark gives a pleasant addition to the series of "Literary Women in Their Homes," by an attractive description and portrait of Miss Mary Wilkins, whose clever stories of New England life have made her so great a favorite. A new serial story, "A Live Ember," by Julia Magruder, beautifully illustrated by Wilson de Meza, opens attractively, and

ROPE DRIVING PULLEY AND FRICTION CLUTCH.

The accompanying illustration is of a rope driving pulley, with friction clutch, manufactured by the Dodge Wood Split Pulley Company, Toronto, for The Rathbun Co., Deseronto, Ont. This is in connection with a large rope transmission, the drive being to operate a 60-inch circular saw working in cedar mill, taking the place of heavy double belt which had caused much annoyance by slipping, and by heating the arbor, owing to the great weight of tightener. This driving pulley is very substantial, being ninety-four inches diameter and twenty inches face, grooved to carry ten wraps of a one-inch manilla rope, and it is also fitted with a 48-



ROPE DRIVING PULLEY AND FRICTION CLUTCH.

inch "Hill" friction clutch, as here illustrated. The pulley and driving ring of clutch, weighing about 4,500 pounds, is attached to a massive sleeve $9\frac{1}{2}$ inches in diameter and six feet long. This sleeve, with the load, runs on an independent bearing clear of the driving shaft, thus giving an outside bearing, and obviating entirely the cutting and wearing of the sleeve, often experienced in the use of other large clutch pulleys. The gripping attachment is keyed to the driving shaft and is thrown in and out of operation at will from the floor above. The driven pulley is keyed directly onto the saw arbor, and the slack device operates in the usual way and upon the principle involved in the patents controlled by the Dodge Wood Split Pulley Company.

Belle C. Green has a clever short story called "A Child of Earth," which is also illustrated by Mr. de Meza. Ethel Ingalls gives an interesting paper on "Life At a Convent School," and Ella Higginson writes of "How We Entertained an Editor." Dr. Talmago, in "Across a Crystal Path," tells of crossing the ocean on his present trip to Europe, and Palmer Cox takes "The Brownies" down the Mississippi. Junius Henri Browne discusses the question "Are Women All Alike?" and Clifford Howard writes of "How Time is Regulated." The poems are by May Lennox, Mary Ainge de Vere, S. K. Bourne and C. H. Crandall. Mrs. Mallon writes on "The Complexion and Its Care" and of "Seashore and Mountain Frocks," and Miss Hooper upon "New Designs in Cotton Dresses." Margaret Bottome, Maria Parloa, Mrs. Lyman Abbott, Maud Haywood, Ruth Ashmore and Foster Coates crowd their departments with good things, and Robert J. Burdette discourses upon the souvenirs of travel. This midsummer number of the *Journal* is more than usually attractive, and worth many times its modest price of ten cents. *The Ladies Home Journal* is published by The Curtis Publishing Company, of Philadelphia, for ten cents a number and one dollar per year.

Those who do any substantial reading at all during the summer season will do well to read the August *Popular Science Monthly*. The number is full of strong names and excellent matter. Prof. E. S. Morse leads off with a practical statement of the scientific way of dealing with criminals, under the title "Natural Selection and Crime." Dr. Andrew D. White continues his record of the aston-

ishing opposition through which Science has had to make its way, taking "Geography" as his special topic. Lord Randolph Churchill describes "The Diamond Industry at Kimberley," with illustrations, telling how the precious stones are dug and washed, and what extraordinary precautions are taken against theft. Herbert Spencer's article on "Voracity" will be the first thing read by many. It is an ethical study of this virtue as it appears or has failed to appear among various peoples, with comments in the philosopher's most trenchant style. The series on American industries is continued with an interesting history of the "Manufacture of Boots and Shoes," by George A. Rich, which is copiously illustrated. In the seventh of his "Lessons from the Census," Carroll D. Wright traces the changing average of persons to a family and of inmates to a dwelling. Prof. H. C. Bolton gives some "Historical Notes on the Gold-cure," showing the absurd claims that were made for gold as a medicine in the time of the alchemists. Prof. Bolton does not apply his facts to a certain gold cure of the present day, but doubtless many of his readers will. The other articles can be only mentioned; they are, "State Intervention in Social Economy," by M. A. Leroy Beaulieu; "The Prehensile Foot of East Indians (illustrated)," by M. F. Regnault; "Beginnings in Botany," by Prof. Byron D. Halsted; "Michael Servetus, Reformer, Physiologist, and Martyr," by Charles McRae; "The Royal Society, or Scientific Visionaries of the Seventeenth Century," by Mary D. Steele; and a "Sketch of John Couch Adams, with Portrait." New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

THE WATEROUS PATENT GRIP PULLEY.

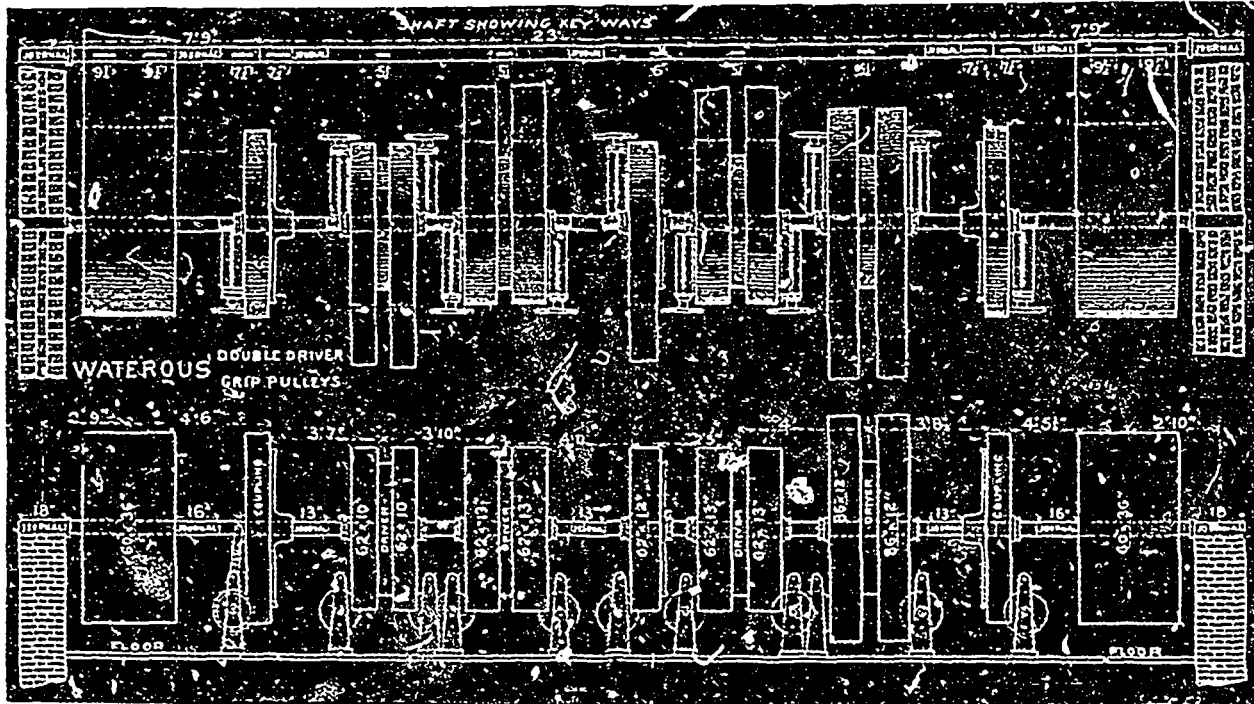
The accompanying illustration is of shafting and arrangement of pulleys in the power house of the Kingston Electric Light and Power Company, Kingston, Ont., recently supplied by the Waterous Engine Works Company, Brantford, Ont.

The Waterous Company were requested by the Kingston people to furnish them with a shaft 23 feet long, and on it to place seven grip pulleys of 62 inches diameter with 10 to 13 inches face, and two grip pulleys of 86 inches diameter and 12-inch face, and 2,300

place additional dynamos, and often it is difficult to make room for grip pulleys on shafts already well occupied.

A case in point of this character recently occurred with the electric light plant of Messrs. Hunt Bros., of London, Ont. They had a single grip pulley driving a dynamo, and they desired to add another dynamo. It was found impossible to do this unless they abandoned the single grip, substituting two grip pulleys on a double driver, and this was done.

In the Kingston plant, here illustrated, there are two 300 horse power engines driving one each of the 60x36 double arm steel rim



horse power couplings. It was found impossible to make this arrangement, using the usual style of grip pulleys. Solid pulleys had to be resorted to or special grip pulleys made. To economize space and enable the work to be done as desired, special pulleys were constructed and placed in four pairs on double drivers, and in this way all the pulleys were placed upon the shaft, in doing which every inch of the length was utilized.

This style of pulley is a new feature in arranging electric light plants, the fullest economy of shaft space being observed. In increasing the capacity of plants it is frequently found necessary to

pulleys at either side of the building. The shafts carrying these pulleys are coupled to the main shaft by two 300 horse power grip couplings similar to the illustration shown in the Waterous advertisement, to be seen on page 80. This arrangement enables either or both the engines to be used at will. The nine grip pulleys on the middle 23 foot length of shafting drive their respective dynamos. They are stopped and started by the power shifting attachment shown in the cut, and further illustrated in the cut in the advertisement. This arrangement is now in successful operation and is giving entire satisfaction.

* INVENTIONS. *

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

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office from June 30 to July 14, 1892, inclusive.

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

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

MECHANICAL.

- 39,251 Ball bearing, G. F. Simonds, June 30th.
39,252 Bricks, E. Cammiss, June 30th.

- 39,253 Time recording mechanism, C. J. Garnet and A. Moore, June 30th.
39,254 Chuck or holder for tools, A. Fleurant, June 30th.
39,255 Rotary plow, M. T. Hancock, et al, June 30th.
39,256 Plastering composition, The Adamant Mfg. Co., June 30th.
39,259 Curling tool, B. Westervelt, June 30th.
39,260 Gas engine, N. M. Barrett and J. F. Daly, June 30th.
39,261 Egg case machine, J. H. Batchelder, June 30th.
39,262 Gate, J. B. Erwin, June 30th.
39,263 Mechanism for channelling boot and shoe soles, A. E. Johnson and C. H. Porter, June 30th.
39,264 Motor, W. C. Carpenter, July 13th.
39,265 Brush, J. Hepner, July 13th.
39,266 Reversible plow point, G. C. Westervelt, July 13th.
39,267 Horse collar, H. C. Etzkorn, July 13th.
39,268 Frame for stretching fabric, S. Hough, July 13th.
39,269 Closet bowls, L. Stamworth, July 13th.

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- 39,270 Potato digger, A. P. Goodell, July 13th.
 39,272 Pipe wrench, G. McKercher and F. J. McEntee, July 13th.
 39,273 Device for dampening envelopes, E. L. Kingsley and E. T. Rice, July 13th.
 39,275 Hasp lock, J. F. Shea, July 13th.
 39,276 Adding machine, A. E. Shattuck and G. E. Bates, July 13th.
 39,277 Padlock, J. F. Shea, July 13th.
 39,278 Tea strainer, F. J. Wills, July 13th.
 39,279 Flushing device for sewers, L. Stamworth, July 13th.
 39,280 Canting block for saw-mill carriages, P. C. Roche and C. Colclough, July 13th.
 39,281 Cartridge case, J. Dobie, July 13th.
 39,282 Envelope opener, W. J. Puckett, July 13th.
 39,283 Railway brake pipe coupling, J. J. S. List, July 13th.
 39,284 Nailing machine for boot and shoe work, S. W. Robinson, July 13th.
 39,285 Do., S. W. Robinson and S. P. Watt, July 13th.
 39,286 Carburizing of coal, H. S. Maxim, July 13th.
 39,287 Blast furnace, A. E. Brown, July 13th.
 39,288 Clutch mechanism, A. E. Brown, July 13th.
 39,289 Tub or bucket for hoisting and conveying machines, A. E. Brown, July 13th.
 39,290 Automatic dump bucket for hoisting and conveying machine, A. E. Brown, July 13th.
 39,291 Clutch mechanism, A. E. Brown, July 13th.
 39,292 Means for translating the power and motion of a drive shaft, A. E. Brown, July 13th.
 39,293 Power transmitting device, W. Main, July 13th.
 39,294 Band saw mill, Smith, Myers & Schuier, July 13th.
 39,295 Propelling power, J. B. Hall and M. M. Varden, July 13th.
 39,296 Reel for unraveling tubular knitted goods, N. Tourangeau and J. O. Marceau, July 13th.
 39,297 Wrench, W. F. Custer, July 13th.
 39,298 Lamp burner, R. T. Barton, July 13th.
 39,299 Apparatus for acknowledging and recording payments, F. Pink, July 13th.
 39,301 Support for upholstery springs, J. A. Staples, July 13th.
 39,302 Artificial stone, E. Gallagher, July 13th.
 39,304 Tool, J. N. M. Shimer, July 13th.
 39,305 Spacer for type matrices, J. C. Fowler and L. G. Hine, July 13th.
 39,306 Portable hat polishing and cleaning machine, C. Sims and H. Treat, July 13th.
 39,307 Screw coupling for pipes and other screw joints, C. A. Folly, et al. July 13th.
 39,309 Saddle support for bicycles, H. H. Chase, July 13th.
 39,310 Power transmitting device, W. Main, July 13th.
 39,311 Fifth wheel for wagons, A. B. Bishop, July 13th.
 39,312 Measuring devices for bottles, E. Buchan, July 13th.
 39,313 Rolling tobacco leaf or cut tobacco into cigars, cigarettes, tobacco plugs, etc., J. E. Rickards, July 13th.
 39,314 Cabinet organ, M. Clark, July 13th.
 39,315 Adjustable candle holder, G. Gurtler, July 13th.
 39,316 Polishing of plate glass, W. Smith, July 13th.
 39,317 Sieving or purification of flour, grain, or other pulverulent or granular material, J. Higginbottom, July 13th.
 39,318 Centrifugal separating machine, J. Higginbottom, July 13th.
 39,321 Wash-board, C. E. Williams, July 13th.
 39,322 Manufacturing garment stays, F. Crompton, July 13th.
 39,323 Corset, N. E. Miles, July 13th.
 39,328 Wire weaving fence, H. S. Cochrane and G. Cochrane, July 13th.
 39,330 Burner for oil stoves, E. M. Wright, July 14th.
 39,331 Sash balance, J. T. C. Cove, July 14th.
 39,333 Blank for book cover protectors, W. B. Harison, July 14th.
 39,334 Spring bed, A. H. Viel, July 14th.
 39,335 Traction of vehicles on railways and tramways, R. W. Wallace, July 14th.
 39,336 Direct acting steam engine, J. A. Groshon, July 14th.
 39,337 Brick machine, F. L. H. Sims, July 14th.
 39,338 Trawl roller, J. B. J. D'Entremont, July 14th.
 39,339 Roll holding photographic apparatus, D. H. Houston, July 14th.
 39,340 Cash recorder, W. H. Thompson, July 14th.
 39,341 Packing cans or jars, L. Hatfield, July 14th.
 39,342 Steam generator, W. Burling, July 14th.

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- 39,343 Combined cooking stove and house heater, T. Brooks, July 14th.
- 39,344 Water filter, F. McKay, July 14th.
- 39,346 Car coupling, M. Flanagan and W. Doyle, July 14th.
- 39,348 Tricycle, W. V. Snyder, July 14th.
- 39,349 Cash register, H. A. Bierley, July 14th.
- 39,350 Railroad switch lever, S. Mohle and F. P. Newell, July 14th.

ELECTRICAL.

- 39,271 Dynamo electric machine, W. Hochhausen, July 13th.
- 39,274 Current motor, L. C. Neal, July 13th.
- 39,300 Electric heating, M. W. Dewey, July 13th.
- 39,308 Electric car heater, The Butterfield-Mitchell Electric Heating Co., July 13th.
- 39,319 Heating houses, buildings, etc., with hot water by means of gas or electricity, C. Clift, July 13th.
- 39,320 Insulated wire for electrical purposes, H. H. Brown, July 13th.
- 39,324 Electric refrigeration, M. W. Dewey, July 13th.
- 39,325 Electric railway, M. W. Dewey, July 13th.
- 39,326 Electric heating, M. W. Dewey, July 13th.
- 39,327 Electric refrigerating for railway cars, M. W. Dewey, July 13th.
- 39,329 Lightning arrester, F. Mansheld and C. W. Wasou, July 14th.
- 39,332 Electric body wear, R. S. Meats, July 14th.
- 39,345 Dynamo electric machine, The Westinghouse Electric Co., July 14th.
- 39,347 Manufacture of metal tubes by electro-deposition, R. D. Sanders, July 14th.

SCIENTIFIC PROCESSES

- 39,257 Manufacture of beer, The Pfandler, Vacuum Fermentation Co., June 30th.
- 39,258 Liver remedy, W. P. Duncalfe, June 30th.
- 39,303 Means and appliances for testing and recording the characteristics or properties of flour and dough, J. Hogarth, July 13th.

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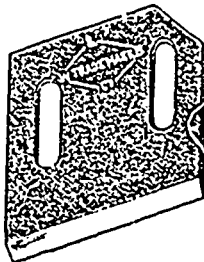
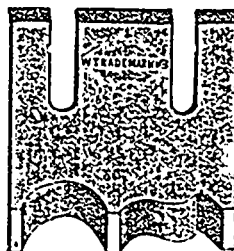
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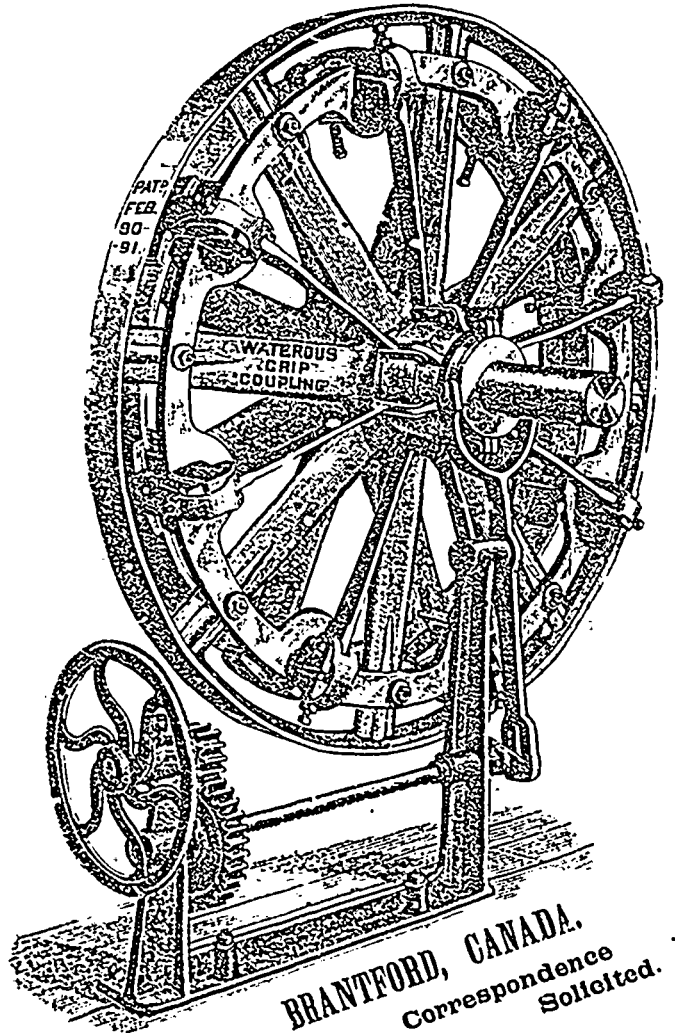
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BRANTFORD, CANADA.
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Captains of Industry.

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

THE Hayward Carriage Works at Clinton, Ont., were destroyed by fire Aug. 2nd; loss about \$2,500.

THE Almonte Knitting Company, Almonte, Ont., are making valuable additions to their factory.

MESSRS. E. FRANK MOSELEY & Co., St. Hyacinthe, Que., are making an extensive addition to their tannery.

MR F W PATCH is building a grist mill at Richmond, Que which will be ready for operation in September.

THE Restigouche Spool Company's factory at Jaquet River, N B, was destroyed by fire Aug. 2nd, loss about \$30,000.

MESSRS. HILL BROS., Wilson Creek, near Eldorado City, West Kootenay, B.C., will build a sawmill of 30,000 feet capacity.

A COMPANY is being formed at Kingston, Ont., to build a grain elevator of 1,000,000 bushel capacity at a cost of about \$200,000.

THE shoddy mills of Messrs. Harding & Co., at Simcoe, Ont., were destroyed by fire, caused by lightning, July 24th, loss about \$6,000.

MESSRS. STEVENS & BURNS, London, Ont., are filling a large order for hydrants, valves, etc., for the water works at Vancouver, B.C.

MESSRS. REID BROS., Port Elgin, N.B., have recently been making large and important additions of machinery to their woolen mills.

MESSRS. FAIRGRIEVE & SON have taken over the woolen mill at Innisville, near Perth, Ont., and will operate it as a yarn and cloth mill.

THE Keegans-Milne Company, Montreal, are placing a 600 light electric plant in the shoe stock factory of Messrs. R. White & Co., that city.

THE Raackrook Company has been incorporated at Sherbrooke, Que., with a capital stock of \$35,000 to manufacture explosives, chemicals, etc.

THE steam saw mills of Messrs. Kelly Bros. at River Hebert, Cumberland County, N S, were destroyed by fire July 30th, loss about \$15,000.

THE Niagara Falls Eiffel Tower Company has been organized with a capital stock of \$30,000 to erect an observatory, etc., at Niagara Falls, Ont.

MESSRS. PATTERSON & CORBIN, St. Catharines, Ont., have contracted to build all the cars for the new electric street railway at Brantford, Ont.

THE Toronto Chemical Company has been organized at Toronto with a capital stock of \$100,000 to treat all manner of ores by smelting, refining, etc.

MESSRS. A. LAURIE & BRO., Montreal, general machinists and foundrymen, are building a 100x55 feet addition to their works to be used as a foundry.

THE Stereotype Plate Company of Ontario has been organized at Toronto with a capital stock of \$25,000 to supply newspapers with stereotype plates, etc.

MESSRS. WM. CROFT & SONS have taken over the woolen mill at Huntsville, near Almonte, Ont., and are manufacturing yarns, blankets, flannels, etc.

THE Bakowell Chemical Company has been organized at London, Ont., with a capital stock of \$200,000 to manufacture pharmaceutical preparations, etc.

THE Ontario Wool Boot Company of Hanover, Ont., has been incorporated with a capital stock of \$25,000 to manufacture wool boots, shoes, slippers, etc.

ANY manufacturer or other who may need the services of a good bookkeeper would do well to correspond with the young man whose card appears in another column.

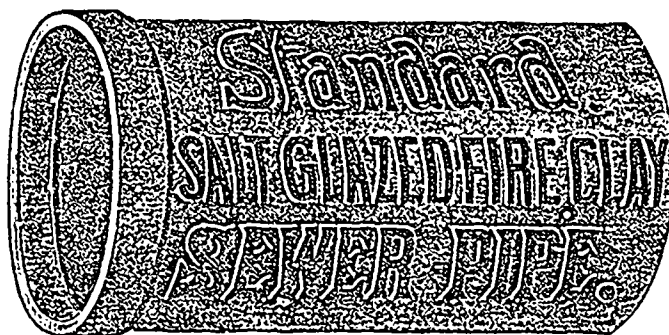
CHAINS.

Coil, 7 sizes; Trace, Halter, Tie-out, Post, Heel and Cow-ties, Tie Weights, Evener Chains, Etc.

Manufactured by THE B. GREENING WIRE CO., Ltd.

HAMILTON, ONT.

Write for Catalogue and Prices.



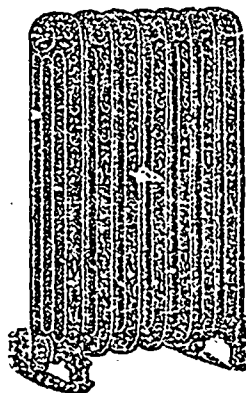
The Standard Drain Pipe Co., St. Johns, P.Q.

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

Safford (Patent) Radiators

FOR

HOT WATER & STEAM HEATING



Lead the World

MADE IN

ALL SIZES and HEIGHTS

Send for Catalogue

MANUFACTURED ONLY BY

The Toronto Radiator Mfg. Co.

TORONTO, - ONTARIO.

Branches:

Montreal, Quebec, Winnipeg, Victoria, B.C.

The office and works of the newly organized company in Canada The Taylor Decarbonizing Iron Company have been established at 27 to 33 Queen street, Montreal.

The Calgary Brewing and Malting Company have been incorporated at Calgary, N.W.T., with a capital stock of \$100,000, and will build a brewery at that place.

The Packard Lamp Company has been incorporated at Montreal with a capital stock of \$6,000 to manufacture electric lamps and electric machinery generally.

The Knechtel Furniture Company, manufacturers of furniture, etc., Hanover, Ont., has been incorporated into a joint stock company with a capital stock of \$100,000.

The Hoffman Patent Caster Company of Canada has been incorporated at Hamilton, Ont., with a capital stock of \$60,000 to manufacture roller casters, etc.

The Light, Heat and Power Company, Newmarket, Ont., has been incorporated with a capital stock of \$40,000 to make and supply electric, steam and water power.

The H. P. Davies & Co., Toronto, has been incorporated with a capital stock of \$50,000 to take over the business of Messrs H. P. Davies & Co., and manufacture bicycles, etc.

The F. F. Dalley Company, Hamilton, Ont., has been incorporated with a capital stock of \$90,000 to manufacture drugs, medicines, spices, druggists' and grocers' sundries, etc.

The James Morrison Brass Manufacturing Company, Toronto, has been incorporated with a capital stock of \$300,000 to take over and continue the business of Mr. James Morrison.

The Verity Plow Company, with headquarters at Brantford, Ont., is being organized with a capital stock of \$150,000 to take over the business of Messrs. W. H. Verity & Sons, of Exeter, Ont.

The large knitting factory of the Strathroy Knitting Company, at Strathroy, Ont., was destroyed by fire Aug. 2nd; loss about \$100,000. About 250 hands are thus thrown out of employment.

Mr. P. DUNN, Cote St. Paul, Montreal, manufacturer of small wire goods, informs us that his works are very busy filling orders for the Dunn patent wire staple, suspender rings and wire goods generally.

The Dominion Embroidery Company of Toronto has been incorporated with a capital stock of \$40,000 to manufacture table and piano covers, buggy dusters, flannels, ladies' dresses, capes, cloaks, etc.

FIRE in Montreal on July 18th destroyed a large portion of the iron works of Messrs. William Clendenning & Sons, and the paint factory of Messrs. A. Ramsay & Sons, entailing a loss of about \$200,000.

THE O'Keefe & Morris Fruit Preserving Company, recently organized at Victoria, B.C., are building a large factory at Rock Bay, near that city, and will make a specialty of putting up Bartlett pears.

THE works of the Standard Card and Paper Company, St. John's, Que., which have recently been undergoing repairs and improvements, including considerable new machinery, are again in full operation.

THE Canada Axo and Harvesting Tool Manufacturing Company is being incorporated at Oshawa, Ont., with a capital stock of \$100,000 to manufacture axes, scythes, forks, rakes, hoes and other harvesting tools.

THE name of the Brooks Manufacturing Company, Peterborough, Ont., manufacturers of electric carbons, etc., will change their corporate name to The Canadian Carbon and Porcelain Company of Peterborough.

THE Owen Sound Portland Cement Company, Owen Sound, Ont., have contracted to sell all the cement they can manufacture this season to be used in the construction of the Canadian Sault Ste. Marie canal.

THE Haworth Belting Company, Toronto, have been awarded the contract to manufacture all the main double leather dynamo and driving belts required for the electric system of the Toronto Street Railway Company.

THE town council of Woodstock, N.B., has voted to give a bonus of \$2,000 to Mr. A. Willis to start a one-set mill there for the manufacture of woolen goods. The new factory will be in operation by the close of the year.

MR. ZEPHYRUS PAQUET has purchased the factory buildings of the Quebec Worsted Company, Quebec, which was partially wrecked by a boiler explosion in February last, and will convert it into a factory for dressing furs.

MESSRS. YOUNG BROS., Almonte, manufacturers of textile machinery, have recently supplied a fulling mill to Messrs J. & G. Black, Thurso, Que., and a fulling mill and wool picker to Mr. David Mann, Lakelield, Ont.

BELTING

Patent Rolled Shafting,

Hangers AND
Pulleys,

Wrought Iron Pipe and Fittings.

RICE LEWIS & SON

Limited,

General HARDWARE Merchants,

TORONTO.

SIMPSON'S PATENT CENTRIFUGAL EXHAUST HEAD

FOR EXHAUST STEAM PIPES.

Screwing Flanges included with every Head.

No wet floors or sidewalks. Thoroughly entraps water and grease from the Exhaust Steam without back pressure. Utilize the water of exhaust steam. Save your roofs by keeping them dry, and avoid the nuisance created by spray from exhaust pipes blowing on pavements, etc.

It should be used by all Rolling Mills, Blast Furnaces, Breweries, and Manufactories using Steam.

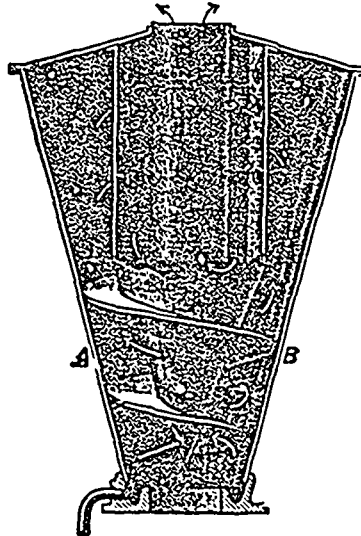
Centrifugal Steam Separators, Centrifugal Oil Extractors, Centrifugal Exhaust Heads, Keystone Double and Single Plunger Belt Pumps, Keystone Feed-Water Heaters and Purifiers.

List of Prices and Sizes of Exhaust Pipe Heads on application to

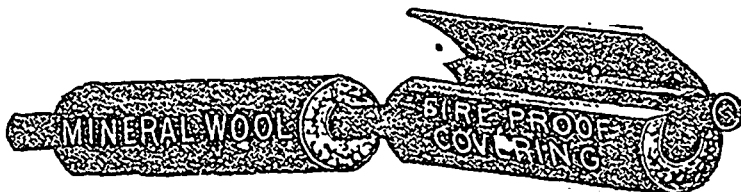
Keystone Engine & Machine Works

W. L. SIMPSON, Proprietor.

Fifth and Buttonwood Sts., Phila., Pa.



LAMKIN'S PATENT.



What is Mineral Wool?

A Fire and Frost-proof insulating material, blown from rock. Used for covering Steam, Hot Water, and Hot Air Pipes, Boilers, and Furnaces, and for Deadening and Fireproofing buildings. Covering Hot Pipes and Boilers saves forty per cent. in fuel.

EXCLUSIVE DEALERS AND PATENTEES,

Canadian Mineral Wool Co., 192 Bay St., Toronto.

SEND FOR CATALOGUE.

The B. Greening Wire Company, Hamilton, Ont., call attention to the chains manufactured by them. In their card they mention coil chains in seven sizes, trace, halter, tie-out, post, heel and cow ties, tie weights, ovener chains, etc.

The Montreal Cotton Company, Valloisfield, Que., are offering for sale 150 top flat carding engines which may be had at a bargain. They are of American make, having railway heads, etc., all complete and in first rate order.

The National Trust and Const. Co., with headquarters at Toronto, is being incorporated with a capital stock of \$500,000 to manufacture railway locomotives, cars, coaches and rolling stock of every description.

The Canadian General Electric Company, with headquarters at Montreal, has been incorporated with a capital stock of \$1,000,000 to manufacture machinery, apparatus and supplies of every kind connected with the use of electricity.

The James Robertson Company is being incorporated at Montreal with a capital stock of \$750,000 to take over the well known and long established business of Messrs. James Robertson & Co., manufacturers of lead, paint, saws, etc.

Messrs. J. & S. BESSETTE, manufacturers of agricultural implements, Iberville, Que., are making some important additions to their works, included in which are a two story brick shop 140x67 feet and a foundry 70x40 feet, expected to be completed before September.

The British America Starch Company has been incorporated at Brantford, Ont., with a capital stock of \$150,000 to take over the plant and business of the British America Starch Works Company, that city, and carry on the business of manufacturing starch, glucose, etc.

PHENYLE—Spooner's fragrant phenyle—has become one of the best known germicide powders in use. It is a disinfectant, deodorizer and preventive of unpleasant smells, especially adapted for use in sinks, closets, urinals, stables, etc., and a sure preventive of moths in clothing.

Messrs. E. BROAD & SONS, St. Stephen, N.B., will put considerable additional capital into their business and increase their output. By their excellent methods they have been able to drive out

of their market large quantities of edge tools heretofore imported from the United States.

The J. C. McLaren Belting Company, Montreal and Toronto, have a very attractive card on our outside front cover printed in two colors, and intended to show by comparison the large proportion of the imported oak tanned leather consumed by them of all brought into Canada.

Messrs. Wm. SCLATER & Co., Montreal, proprietors of "The Asbestos Warehouse," in calling attention to their business, enumerate among their products magnesia and asbestos removable covering, asbestos, millboard, sheet packing and building felt, cotton waste, oils, lubricating compounds, etc.

Messrs. WILLIAM CLENDENNING & SONS, Montreal, whose extensive works were partly destroyed by fire last month, inform us that they are proceeding to rebuild, and will be in full operation again with but temporary delay. Their iron foundry was not destroyed, and they are filling all orders for castings with their usual despatch.

Mr. H. S. KALISKE, business manager of the Beacon Electrical Company, Boston, and Mr. Wm. E. Nickerson, a director of that company, were in Ottawa a few days ago with a view to establishing a factory for electrical apparatus, principally incandescent electric lamps. They were looking for a location in Canada in which to build a factory to employ 40 or 50 hands.

The G. & J. Brown Manufacturing Company, Belleville, Ont., call the attention of contractors and builders to the single and double drum hoists manufactured by them. They make a specialty of all manner of contractors' supplies. They also make frogs, diamonds, crossings, switches, hand cars, lorries, velocipede cars, jim crows, track drills, semaphores and railway supplies generally.

The Whitman & Barnes Manufacturing Company, St. Catharines, Ont., manufacturers of extra quality machine knives, etc., call attention to the following specialties. Knives for mowers, reapers, binders, root pulpers and straw cutters; knives for all kinds of wood-working machinery; knives for paper mills; knives for leather-splitting machinery; W. & B. diamond twist drills, spring keys and cotters. Knives for special purposes made to order.

A. ALLAN, PRESIDENT.

J. O. GRAVEL, SECRETARY-TREASURER.

F. SCHOLDS, MANAGING DIRECTOR.



The CANADIAN RUBBER CO. of Montreal and Toronto. CAPITAL \$2,000,000.

Manufacturers of First Quality Rubber Boots and Shoes. Superior Quality Rubber Beltings, including The Forsyth (Boston Belting Co.) Seamless Rubber Belting. For which we are Sole Agents and Manufacturers in Canada. We hold the Patent and sole right to manufacture in Canada.

The Patent Process Seamless Tube Hose

We make all our hose by this process. Ask the merchant you deal with for it and take no other.
RUBBER PACKINGS, VALVES, GASKETS, ETC.

Head Office and Factory: MONTREAL.

J. J. MCGILL, Manager.

Western Branch: Corner Front and Yonge Sts., Toronto

J. H. WALKER,

Manager.

THE POLSON IRON WORKS CO., Ltd.

Capital, \$300,000

HEAD OFFICE, TORONTO

Builders of the Celebrated BROWN AUTOMATIC ENGINE.

Single, Tandem and Triple Expansion. Specially Designed for

ELECTRIC LIGHT PLANTS.

12,000 Horse-Power

of these Engines built by us are NOW IN USE IN ELECTRIC LIGHT PLANTS IN CANADA

MESSE^S. J. L. GOODHUE & Co., leather belting manufacturers, Danville, Que., have established a branch office and warerooms in Toronto at 74 York street, under the management of Mr. H. D. Simmons, where a stock of their goods will be kept. This will be a great convenience to the Ontario and Western friends and customers of this concern. They are now making at their Danville factory a large lot of belts for the Chaudiere Electric Company, Ottawa, included in which are two 44-inch and one 36-inch double belts.

THE Dominion Disinfectant Company, Montreal, announce that they are the sole manufacturers in Canada of Roberts' patent ozonator, a germ destroyer and atmospheric purifier of great efficiency and value. Used with the disinfectant preparations made by the company its effectiveness is guaranteed. It is not only a deodorizer, but it gives forth a pleasant and wholesome smell, the odor resembling that of the fragrant Canadian spruce tree. By reference to the company's card in another page it will be seen that this apparatus is in use in the works of quite a large number of prominent manufacturing concerns in Montreal and elsewhere.

A NAPANEE paper contains an interesting account of the recently erected works of the Gibbard Furniture Company in that town. The factory is of brick and stone, three stories high, and is equipped with every modern appliance and machinery appropriate to the business. Mr. John Gibbard began this business at Napanee some thirty years ago, the factory being destroyed by fire a few years after. A new factory was immediately started under the management of Messrs. J. Gibbard & Son, and this was kept in continuous and successful operation until destroyed by fire in February last. Additional capital was then invested and the concern merged into a joint stock company under the business management of Mr. W. T. Gibbard. Some of the finest and most elegant furniture made in Canada is made at these works.

MR. A. W. SPOONER, Port Hope, Ont., has begun the manufacture of a machine recently patented by Mr. F. E. Gracie, of that town, for putting labels on bottles, cans, round and square packages, newspaper addresses, etc. In the old way of labeling bottles it requires the service of an exceedingly nimble and quick working operator to label from 3,000 to 5,000 bottles per day, while with this machine the capacity is from 25,000 to 30,000 bottles per day. In putting labels on fruit cans from 1,500 to 2,000 cans is consid-

ered a good day's work when done by hand, but with this machine an operative can put on from 8,000 to 12,000 labels per day. It puts the label on perfectly smooth and tight, and in the proper place. The machine is small, well made, strong and light, and is easily handled. This is a Canadian invention and a good one.

MESSE^S. JOHN BERTRAM & SONS, Dundas, Ont., have just completed for the Waterous Engine Works Company, of Brantford, a vertical boring mill which has a capacity of 104 inches diameter and 64 inches high, for turning and boring drums, gearing and general work. The cross rail, which is raised and lowered by power, is 12 feet 6 inches long and 24 inches wide, and has two heads with rams which can feed up or down or across the work in either direction independently, the standards are hollow cored castings, the bed is cast in one piece and rests on a stone foundation. The mill is powerfully geared, the driving cone having seven steps, the largest being 27 inches and the smallest 12 inches diameter. The total weight of the machine is 44,000 pounds. Being tested it faced off a casting 84 inches diameter with a heavy cut in four hours.

FROM Dr. J. Herzfeld on the practice of dyeing. Of comparatively recent introduction for dyeing of cotton, jute and linen are the carmine colors. A combination of vegetable coloring matter and metallic oxides, thereby forming a lac that is well adapted for direct dyeing of light or darker shades. The colors go on oven and withstand the washing, acid, water and perspiration to a much higher degree than direct wood colors, and, moreover, the yarn retains its natural softness and lustre, and for this reason the soap bath becomes superfluous. Carmine colors can be shaded by coal tar dyes in the same bath, and they then act as a mordant for the latter. They draw very deep upon a bottom of cutch, tannin, anti-mony, iron or acetates of alumina; may also be used as a topping for indigo blue or for benzoe colors. A passage through an iron bath between dyeing will sadden and deepen the shade very much. The primary colors are yellow, blue and red carmine, which by themselves combine into so-called mout shades. The dyeing process is as follows. Enter the yarn or cloth at 150 degrees, dye half to one hour to shade, wash and dry. For light shades add 1 per cent. alum to the bath. These carmine colors are being manufactured and sold by Mr. Alex. P. Mendo, 14 Water St., New York, who has extended their application to the dyeing of cotton and woolen mixed yarns and piece goods in one operation, and with considerable success.

BRUNNER, MOND & CO., Limited, Northwich, Eng.

Manufacturers of **PURE ALKALI** Guaranteed 58 degrees.

The Strongest and Purest Form of **SODA ASH** in the market, and the most Economical Form of **SODA** for the Manufacture of



Glass, Paper, Wood Pulp, Soap and Starch

Also for PRINTERS, BLEACHERS and COLORS.

WINN & HOLLAND, Montreal,

Sole Agents for the Dominion of Canada.

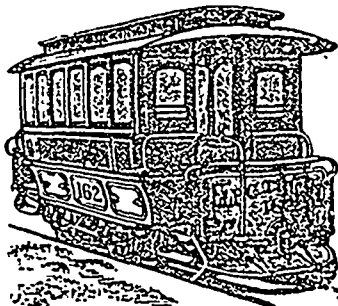
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FINE

ELECTRIC CARS

OUR

SPECIALTY



ST. CATHARINES, ONT.

MANUFACTURERS OF

Horse and Trail Cars

OF

EVERY DESCRIPTION

President, W. K. McNAUGHT

Secretary, J. J. CASSIDY

Treasurer, GEORGE DOOTH

The Canadian Manufacturers' Association

THE OBJECTS OF THIS ASSOCIATION ARE :

To secure by all legitimate means the aid of both Public Opinion and Governmental Policy in favor of the development of home industry and the promotion of Canadian manufacturing enterprises.
To enable those in all branches of manufacturing enterprises to act in concert as a united body whenever action in behalf of any particular industry, or of the whole body, is necessary.
To maintain Canada for Canadians.
Any person directly interested in any Canadian manufacturing industry is eligible for membership.

Correspondence with Manufacturers Requested.

Office of the Association, ROOM 66 CANADA LIFE BUILDING, KING ST. WEST, TORONTO.
J. J. CASSIDY, Secretary. TELEPHONE 1274.

WHEN WERE YOUR

Boilers

Last Inspected?

ARE THEY IN SAFE

WORKING ORDER?

THE BOILER INSPECTION and Insurance Company of Canada.

SIR ALEX. CAMPBELL, KCM G. PRES (Lieut. Govr. of Ontario)
JOHN L. BLAIKIE, ESQ. VICE PRES.



CONSULTING ENGINEERS.

G.C. ROBB, Chief Engineer. A. FRASER, Secy. Treas.
HEAD OFFICE

TORONTO.

ARE YOUR

Boilers

GIVING THE

GREATEST POWER

AT THE

Least Cost?

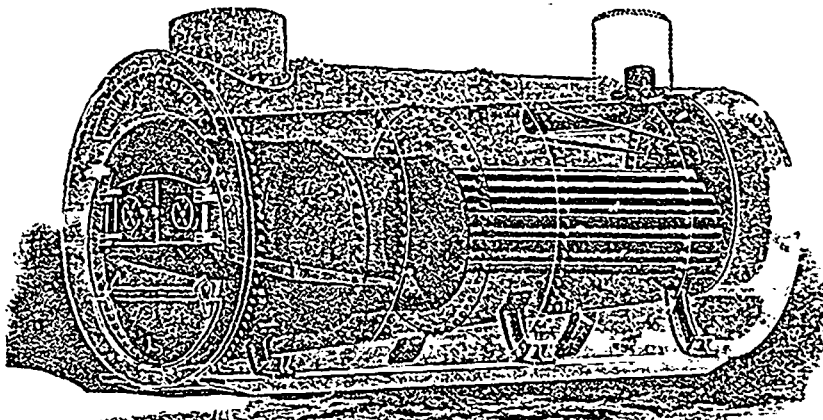
THE MONARCH ECONOMIC BOILER

Patented Can. May 6, 1866; Feb. 10, 1887.
Patented U.S.A. Oct. 5, 1886, Aug. 23, 1887; May 8, 1888.

Is the strongest and most **Portable Boiler**

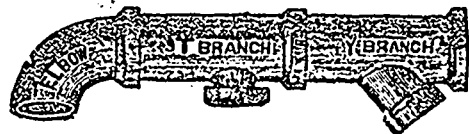
in use, and its high economy in fuel makes it specially valuable to gold miners.

Tested evaporation 10.25 lbs. water per pound of ordinary Nova Scotia coal.



Manufacturers of
The Robb-Armstrong Automatic Engine,
The Hercules Engine,
(For all purposes)
Saw Mill, Electric Machinery
BELTINGS, PACKINGS, OILS, Etc.
Robb Engineering Co. LIMITED,
SUCCESSORS
A. ROBB & SONS
AMHERST, N.S.

HENRY NEW, Pres. J. H. NEW, Vice-Pres. TORONTO A. E. CARPENTER, Sec.-Treas.



FLUE PIPES, CHIMNEY TOPS and SMOKE PREVENTIVES.

THE HAMILTON AND TORONTO

SEWER PIPE CO'Y,

(LIMITED,)

HAMILTON, CANADA.

Successors to The Campbell Sewer Pipe Co. and The Hamilton Sewer Pipe Co.

—MANUFACTURERS OF—

Steam-Pressed, Salt-Glazed **SEWER PIPE**
VITRIFIED

Established 1860.

Millers' and Manufacturers' INSURANCE COMPANY.

STOCK AND MUTUAL.

OBJECTS.

1. To prevent by all possible means the occurrence of avoidable fires.
2. To obviate heavy losses from the fires that are unavoidable by the nature of the work done in mills and factories.
3. To reduce the cost of insurance to the lowest point consistent with the safe conduct of the business.

METHODS.

All risks will be inspected by a competent officer of the company, who will make such suggestions as to improvements required for safety against fires, as may be for the mutual interests of all concerned.

Much dependence will be placed upon the obligation of members to keep up such a system of discipline, order, and cleanliness in the premises insured as will conduce to safety.

As no agents are employed and the company deals only with the principals of the establishments insured by it, conditions and exceptions which are so apt to mislead the insured and promote controversy and litigation in the settlement of losses will thus be avoided.

The most perfect method of insurance must, in the nature of things, be one in which the self-interest of the insured and the underwriters are identical, and this has been the object aimed at by the organizers of this company.

W. H. HOWLAND, Vice-President. **JAMES GOLDIE,** President.
HUGH SCOTT, Managing Director.

Applicants for Insurance and other information desired, please address **MILLERS' AND MANUFACTURERS' INSURANCE COMPANY** No. 24 Church Street, Toronto

THE MANUFACTURERS' Life Insurance Company

PRESIDENT **GEORGE GOODERHAM,**
President Bank of Toronto

**A
Five
Years'
Record**

Income	\$207,486.49
Increase over previous year	\$38,089.08
Gross Assets	437,959.11
Increase over previous year	86,219.16
Insurance Reserve for the protection of Policy-holders	289,045.00
Increase over previous year	71,795.00
Surplus on Policy-holders account	135,307.63
New Business written in 1891	2,111,100.00
Insurance in force Dec. 31, 1891	7,414,761.00

Head Office, - TORONTO.

JOHN F. ELLIS, Managing Director.

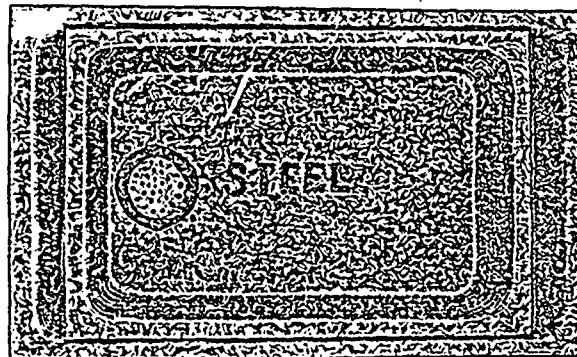
SEAMLESS WROUGHT STEEL KITCHEN SINKS.

These SINKS are pressed from **SINGLE SHEETS OF STEEL**

without seams or joints, rounded at the sides and corners so that no dirt can possibly collect anywhere.

These Kitchen Sinks are finished in **PAINTED** and **GALVANIZED**.

KEMP MANUFACTURING CO.



Owing to the toughness of the material (steel)

BREAKAGE IS IMPOSSIBLE

and in consequence of their comparative lightness, **FREIGHT CHARGES** are less than **HALF THE PRICE** of the cast iron article.

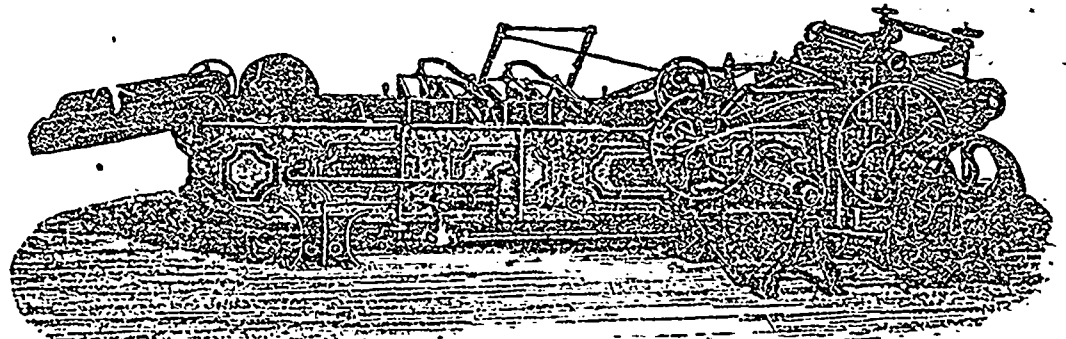
TORONTO, ONTARIO

IMPROVED WOOL WASHER

BUILT BY **C. G. Sargent's Sons**

Graniteville, Mass., U.S.A.

Builders of Wool Washers, Burr Pickers, Wool Dryers, etc.



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

STOP!

What kind of Belt Pulleys are you Buying?

THERE IS ONLY ONE ORIGINAL AND GENUINE "DODGE" PATENT PULLEY

Don't be deceived, or let Dealers palm off bad imitations, because they have a Wider Margin on them, but **INSIST** on having the "DODGE" every time.

Dodge Wood Split Pulley Co.

83 KING STREET WEST,

TORONTO, - ONTARIO.

THE ROYAL ELECTRIC CO., 54 to 70 Wellington Street, MONTREAL

SOLE PROPRIETORS FOR THE DOMINION OF CANADA OF THE

Thomson-Houston Systems of Arc and Incandescence Electric Lighting

The Most Perfectly Automatic System of Electric Lighting in the world.

Thomson-Houston Arc Dynamos and Lamps for 1,200 and 2,000 c.p.

Thomson & Thomson-Houston Incandescence Dynamos for low tension direct current.

Absolutely Automatic Regulating and Compound Wound. Thomson Alternating Dynamos, Transformers, and all Supplies for long distance Lighting. Thomson Power Generators and Motors of the latest and most efficient types. Our Customers all over the Dominion are our references, and our plants speak for themselves.

FULL LINES OF ELECTRIC LIGHTING AND POWER SUPPLIES.

THE TORONTO CONSTRUCTION & ELECTRICAL SUPPLY CO., LIMITED.

Authorized Capital
\$250,000

OFFICE AND SHOWROOMS: 63 to 69 Front St. West, Toronto.

Branches at
Winnipeg, Man.; and St. John, N.B.

ELECTRIC LIGHTING FOR MILLS AND FACTORIES

We are prepared to submit Estimates for Complete Electric Light and Electric Power Equipments for Mills and Factories. We carry the Largest Stock of ELECTRICAL SUPPLIES in Canada.

SOLE CANADIAN AGENTS
FOR THE

THOMSON-HOUSTON SYSTEMS

OF INCANDESCENT
ELECTRIC LIGHTING.

Electric Street Railways, Electric Mining Apparatus, Electric Pumps, Electric Hoists, Power Generators and Motors, Direct Reading Watt Meters, Transformers, Incandescence Lamps and all General Supplies for Electric Light and Railway Plants.

THE "WOOD" ARC LIGHTING SYSTEM.

(Manufactured by the Fort Wayne Electric Company.)

A Full Line of Electric Lighting and Power Supplies always in Stock. Write for Estimates.

W. R. BRUCE,
President.

H. P. DWIGHT,
First Vice-President.

FREDERIC NICHOLLS,
Second Vice-President and General Manager.

The Londonderry Iron Co., Ltd.

MANUFACTURERS OF

**PIG IRON, PUDDLED BARS,
BAR IRON, NAIL PLATES,
WATER PIPES, ETC.**

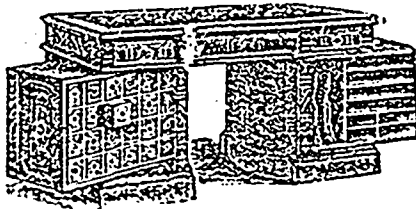
OFFICE, **MONTREAL.** WORKS, **LONDONDERRY, NOVA SCOTIA.**

The Canadian Office & School Furniture Co., Ltd.

PRESTON, ONT.

SUCCESSORS TO W. STAHLSCHMIDT & CO.

Manufacturers of Office, School, Church and Lodge Furniture.



Rotary Desk No. 50.

SEND FOR CATALOGUE.

For Single or Double : :

DRUM HOISTS

WRITE

G. & J. Brown Mfg. Co. (Ltd.)

BELLEVILLE, ONT.

ENGINEERS, BOILERMAKERS, MACHINISTS, FOUNDRYMEN and BRIDGE BUILDERS

Railway and Contractors' Supplies a Specialty

Frogs, Diamond Crossings, Switches, Hand Cars, Lorries, Velocipede Cars
Jim Crows, Tracer Drills, Semaphores, Rail Cars, Etc., Etc.

Established 1880.



**HELDMAN'S LACE
STANDS THE TEST.**

**IF YOU
WANT
A LACE
LEATHER**

Write to

**Heldman Bros.,
BADEN, ONT.**

Canada Iron Furnace Co. Ltd.

MONTREAL, RADNOR AND THREE RIVERS.

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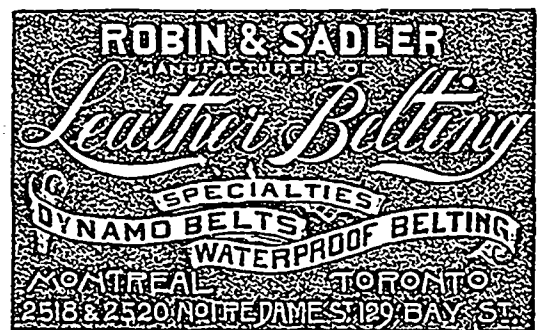
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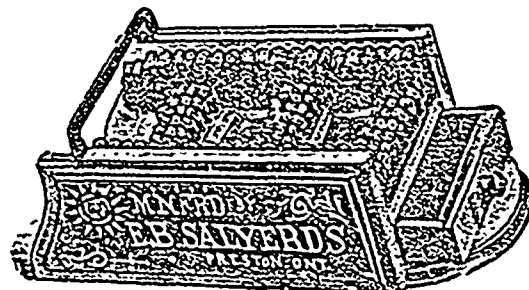
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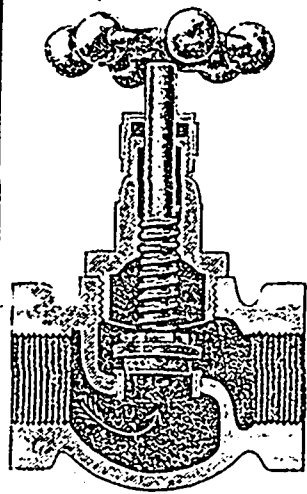
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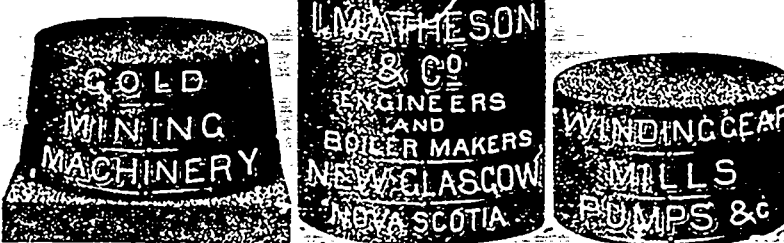
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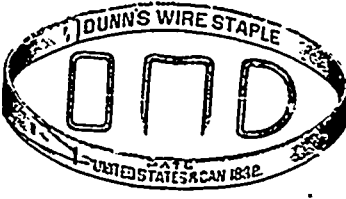
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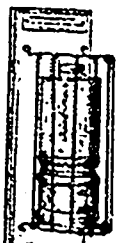
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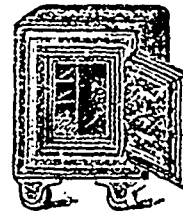
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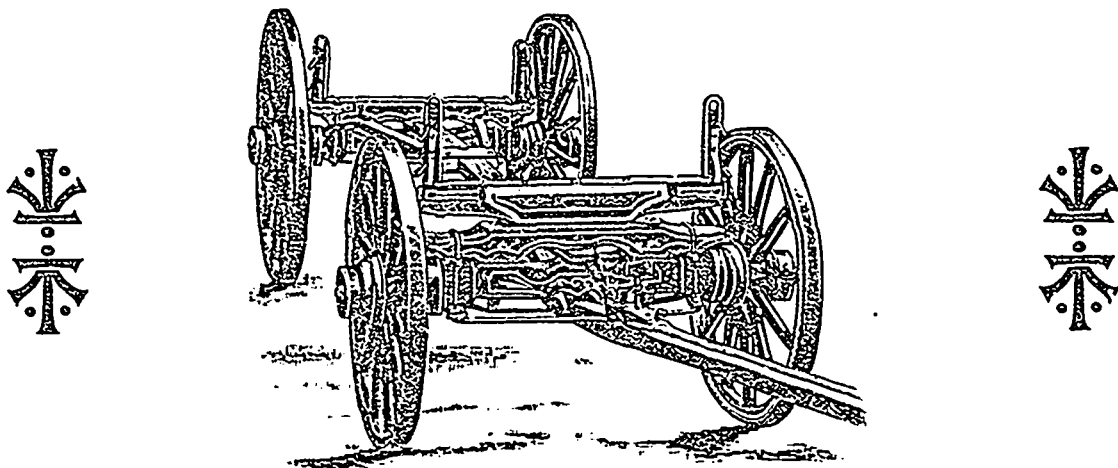
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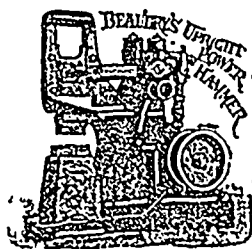
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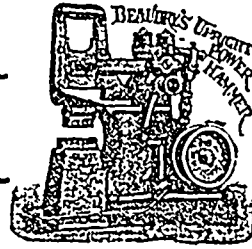
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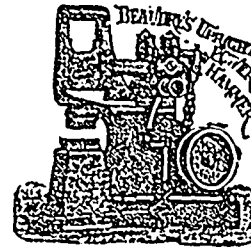
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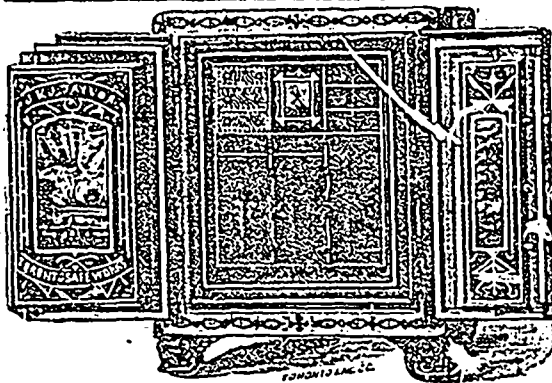


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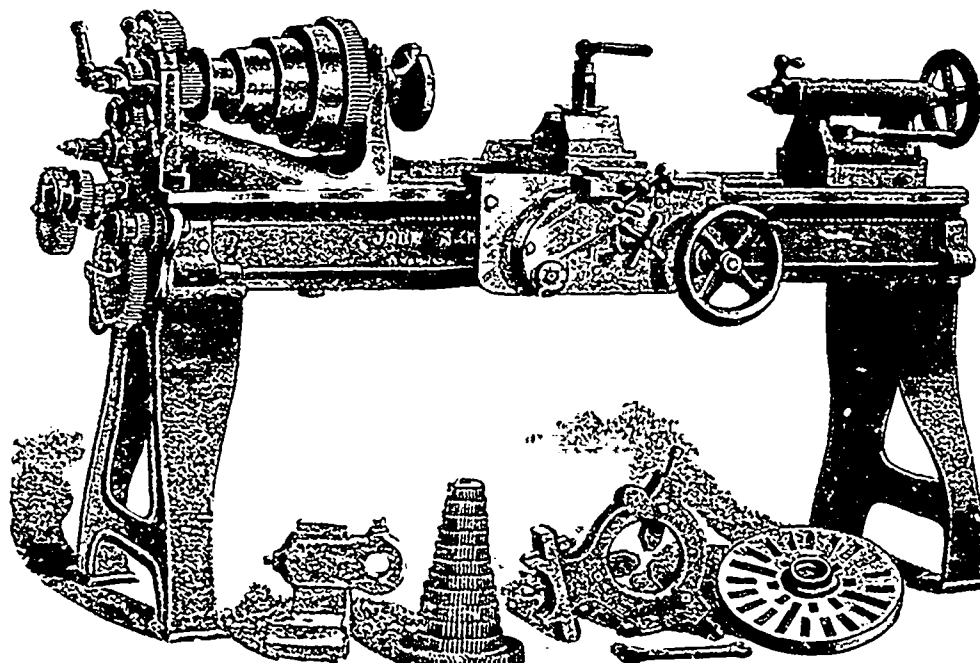
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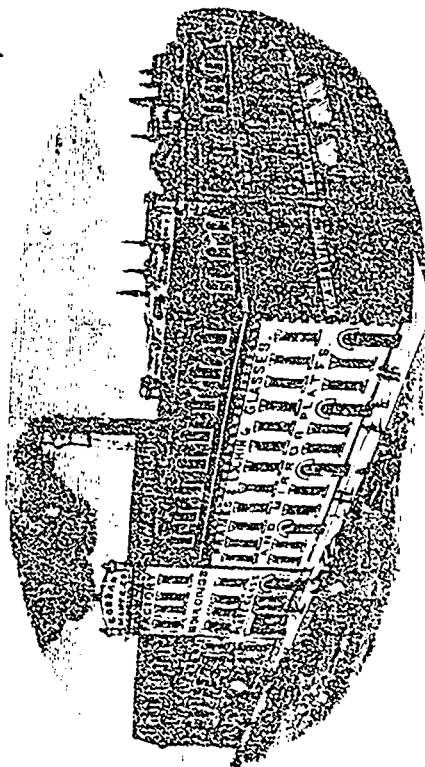
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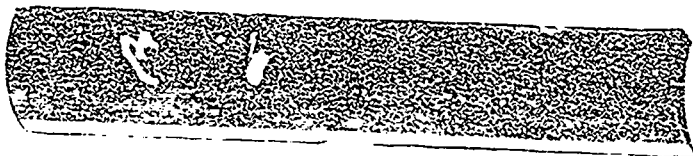
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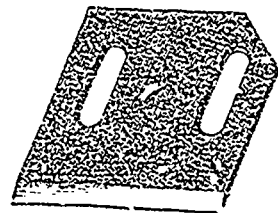
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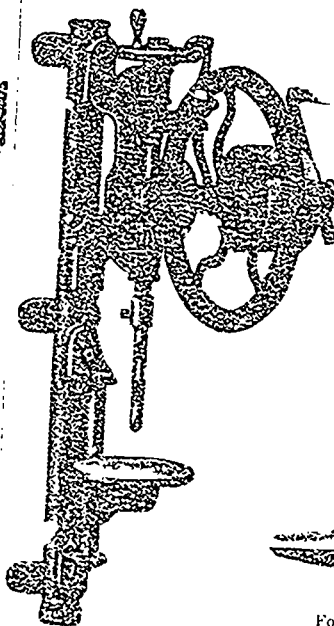
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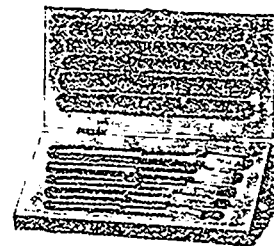
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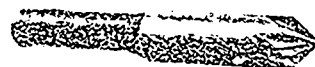
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