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Vol. 36.

TORONTO, MARCH 4, 1898.

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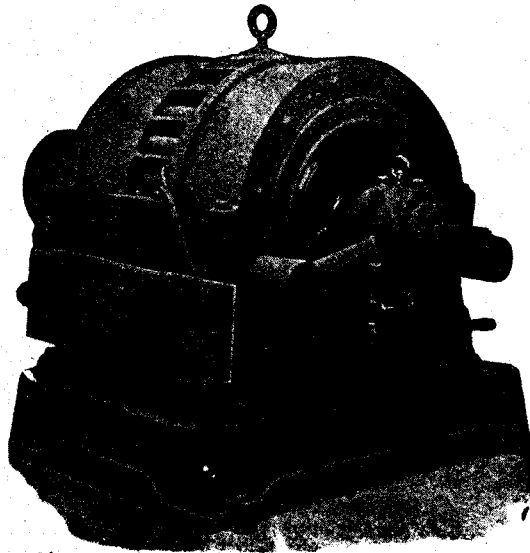
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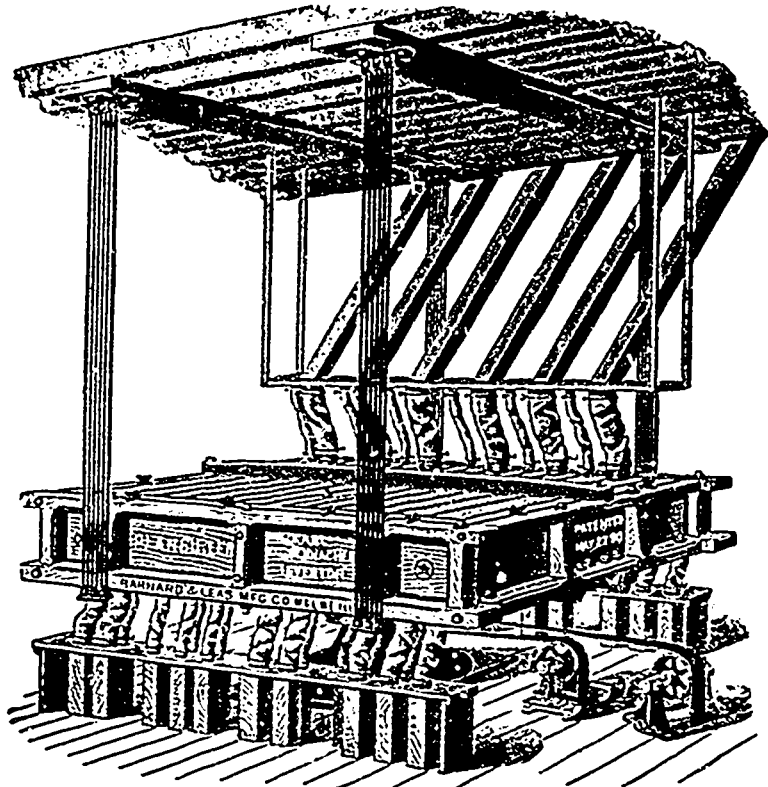
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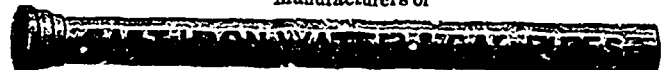
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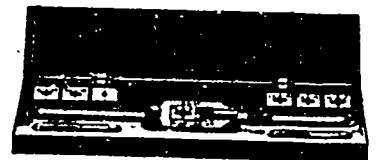
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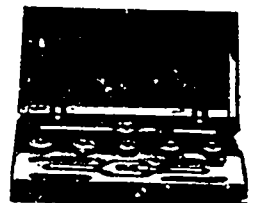
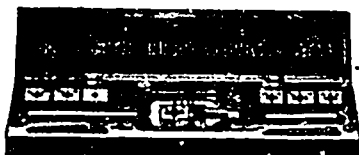


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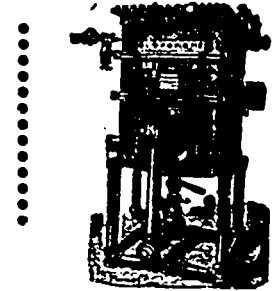
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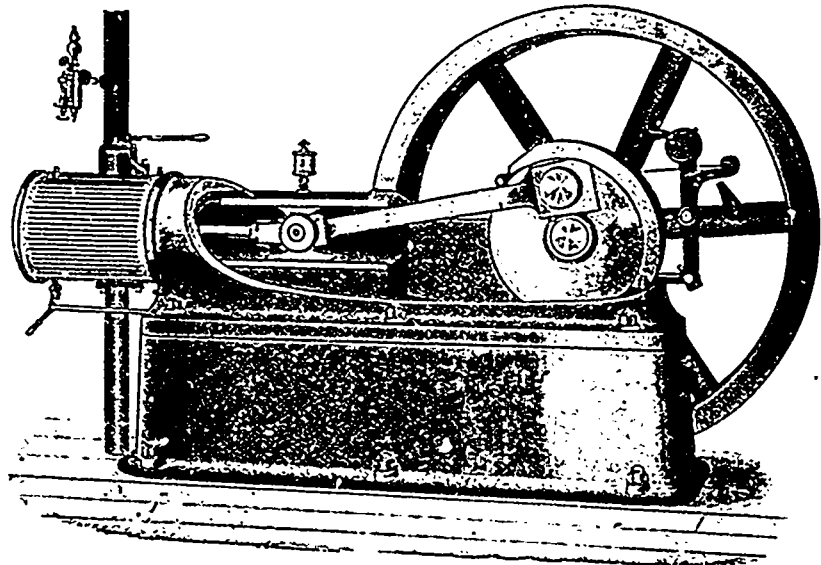
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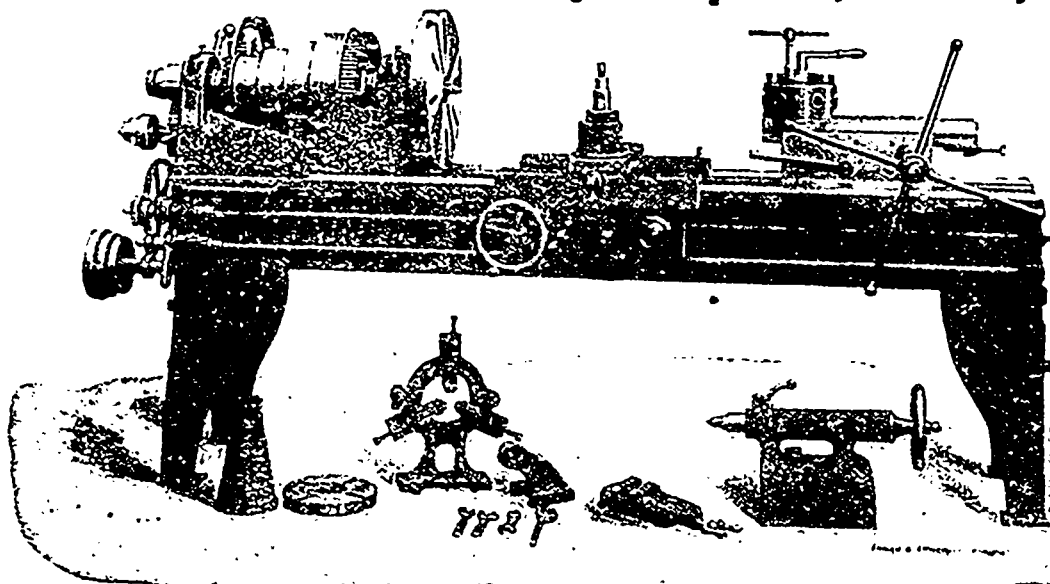
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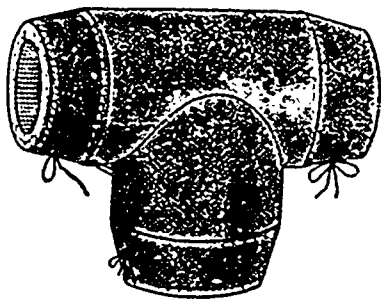
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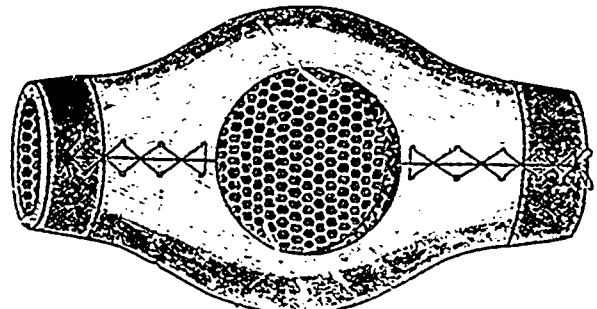
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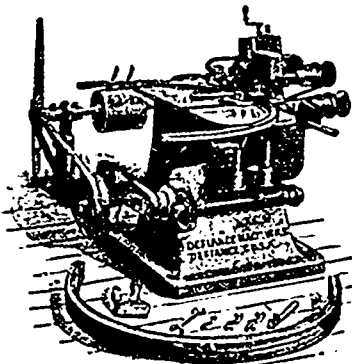
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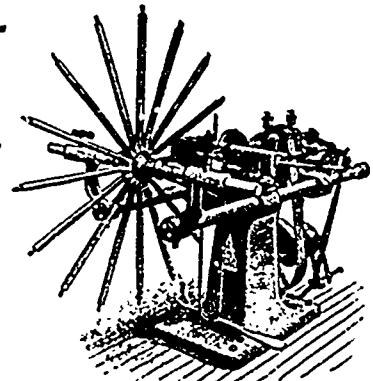
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most important admission by the Americans of our commercial equality on this continent, and certainly testimony as to our commercial independence.—Toronto World.

Our energetic contemporary calls attention to a matter to which too much importance cannot be given. On altogether too many occasions we have blushed for Canadian representatives who at Washington truckled to the American Government and fairly begged to be allowed privileges at their hands. We are glad that such a condition of things is not to be continued, and that the C.P.R. has shown the American railways that they do not own the North American continent.

The United States is surprised. It does not yet realize it, but after the war with Spain is off its hands it will almost consider Sir William Van Horne's hostile action as a casus belli sufficient to warrant them turning their victorious guns upon Canada. "Cuba and Canada" would make a capital battle cry and the United States would find it easy to let the Monroe doctrine fall into innocuous desuetude. The American railways, with which the Grand Trunk is joined, find it hard to realize that anyone has had the temerity to say them nay. When they find their revenues dropping off they will have other problems to solve. They may combine to secure competitive trans-continental rates as low as those of the C.P.R. They may trust to their wide-spread agencies to turn to them the traffic they must have to run their lines at a profit. They undoubtedly consider that the combination of the Grand Trunk, Chicago and Northwestern, Atchison, Topeka and Santa Fe, Burlington and Northern, Chicago, Burlington and Quincy, Chicago, Minneapolis and St. Paul, Chicago and Great Western, Chicago and Rock Island, Chicago, St. Paul, Minneapolis and Omaha, Great Northern, Minneapolis and St. Louis, Northern Pacific, Wabash, Union Pacific and the Wisconsin Central lines will be sufficiently powerful to crush the C.P.R. into submission. Perhaps they may find that they have reckoned without their host.

Canadians will remember that the doctrine of "sixteen to one" was not especially successful in the United States, and they also cannot fail to notice that the combination against the C.P.R. consists of sixteen American railways and the G.T.R. Canadians at the present juncture do not take kindly to dictation from the United States, and when American railway managers undertake to fix the passenger rates for Canada we somehow fail to appreciate their kindly interference with our affairs. The new combination covers a wide range of territory and announces all the privileges accorded to patrons of the C.P.R. Officials of the latter railway declare that they can put enough obstacles in the way of the combine to upset their whole magnificent arrangement. Had the Grand Trunk and its allies been able to control as many strategic points as they claim, they scarcely need have cut rates as they have done. Actions in this case apparently contradict words. The C.P.R. claim that the Grand Trunk has been systematically undermining it. This aim has been to further the interests of the Chicago route which they have favored. The G.T.R. charges the C.P.R. with sending settlers to the Northwest and thus discriminating against the older provinces. The C.P.R. charges the G.T.R. with using every endeavor to direct the stream of immigration to the Western States. Suppose we believe both

charges, then, surely, neither can take offence. But Canadians will please take note which charge is the worse.

In the United States there is an interstate commission at Washington. A number of American railways recently applied to it for a suspension of the long-and-short-haul clause of the Interstate Commerce Act. The G.T.R. was a party to this application. What was the object? Simply to hit the C.P.R. below the belt without hurting themselves. With similar intent the same companies applied to the same commission for special rulings regarding Pacific coast and Kootenay traffic. The fact that additional coaches have been needed to carry the C.P.R. traffic since the rate was begun is ample evidence that Canadians are in sympathy with the Canadian road. It should be supported as it deserves and the railway kings of the United States will have to pay attention when we hang out our sign "Hands off Canada."

Another suggestion from *The World* seems very apropos and is worthy of serious consideration not only by the American roads but by the G.T.R. which may suddenly find certain of its American branches practically disabled. *The World* says:

Although Sir Van has not disclosed his policy, in the event of the great American eagle being brought into the fight, yet it is evident that in such a contingency he on his part will summon to his aid that noblest of creatures, the industrious, intelligent little Beaver. If the United States Government introduces legislation hostile to Canada to help the United States railways in their fight against the C.P.R., what more natural than that the Dominion Government should introduce retaliatory legislation to help the Canadian line? That is evidently what the president of the C.P.R. is counting on. If the United States refuses to allow our province-to-province traffic to pass through American territory Canada will certainly retaliate, and the retaliation will not confine itself to kind or degree. Canada will not only prohibit state-to-state traffic passing through the Dominion, but it will adopt legislation shutting the Americans out of the Yukon. Canada will shut up the American passes and allow goods to be brought in by one or two gateways only. Canada owns the Klondike country, and she will adopt such regulations as will effectually keep out American goods and prevent American transportation companies from handling them. It is retaliation of this kind that Sir William Van Horne is counting on, and he is probably correct in his prognostication.

THE LUMBER QUESTION.

A large meeting of Ontario lumbermen some months ago passed a resolution asking the Dominion Government to impose on lumber and shingles sent into Canada from the United States the same tariff imposed by Congress upon lumber and shingles sent from Canada into the United States. The attitude of western lumbermen was at that time questioned from some quarters in the east, but we are glad to be able to announce that no reason for doubt exists and the westerners will be only too glad to co-operate with their eastern confreres.

Canadians had just cause of complaint. Saw logs were cut from Canadian limits and supplied work for mill hands in American sawmills. Then the surplus output of these mills was shipped back into Canada and sold along the frontier in competition with the product of Canadian mills. Canadian lumbermen are willing to take chances on an even basis with their United States competitors, but they do not see any reason why they should be placed in the unfair position they

at present occupy. The position may be summarized thus:—The very same products that we manufacture are manufactured in those States lying to the south of us; their manufacturers have every facility for reaching our main Canadian markets that we have; they buy nothing from us; they are able to purchase machinery and all mill supplies from twenty to thirty-three and one-third per cent. cheaper than we can; their general cost of living is about twenty-five per cent. cheaper than with us, consequently, they are enabled to manufacture cheaper than we can. And, while they do not cater to any regular and legitimate Canadian trade, they regularly disturb our conditions and prices by using our markets as a dumping ground in which to unload their overstock at prices lower than we can possibly produce a like article, on account of the reasons above set forth. At the same time the benefit of cheaper goods is going largely, if not altogether, to the few dealers and not to the many consumers.

Ontario sawmills are standing idle and the logs that should feed them are going across the line. In British Columbia no headway has been made for four or five years by the sawmill men, and they would be better off under existing conditions if they moved their plants across the line, which one firm has actually done, thus securing the United States market without forfeiting the market in Canada.

Senator Kaulback: proposes to inquire of the Ottawa government if they intend to impose an export duty on saw logs. He estimates that 328,000,000 feet of Ontario timber will go across the line next spring. We are glad to note this move. It is in the right direction, and the saw log export prohibition should apply to all Canada and not merely to Ontario alone. But there is another step that must be taken. We must put the same tariff on American lumber as they have put on ours. Politicians at Ottawa need not fear to do it. There will be some opposition to it, but the vast majority of Canadian lumbermen will support their action. Such a law will be supported universally in the far west where a big meeting of lumbermen recently asked for its enactment. Here are the names of some of those present on that occasion: Senator Templeman and Messrs. Aulay Morrison and Geo. R. Maxwell, M.P.'s; Messrs. John Hendry, representing the B. C. Mills Timber & Trading Co.; J. G. Woods, Moodyville Saw Mill Co.; L. A. Lewis, Brunette Saw Mill Co.; J. G. Scott, Pacific Coast Lumber Co.; G. T. Legg and H. H. Spicer, Spicer Shingle Mill Co.; E. H. Heaps and Wm. Sulley, E. H. Heaps & Co.; D. Robertson and J. W. Hackett, Robertson & Hackett; J. A. McNair, Hastings Shingle Manufacturing Co.; Arch. McNair, A. McNair Shingle Mill Co.; F. H. Moon, Hastings Saw Mill; Robert Jardine, Royal City Mills, New Westminster; R. C. Fergusson, Royal City Mills, Vancouver; W. L. Tait, W. L. Tait & Sons, Vancouver; A. Haslam, A. Haslam, Nanaimo; D. B. Grant, Grant & Kerr, Ladner; Jas. Poubaire, Peter Genelle & Co., Nakusp.

Our British Columbian brethren have displayed more energy than we of the east are accustomed to show in dealing with the United States. The Yukon outfitting trade has recently brought them into close connection and they have not been backward in the contest with the United States. A mass meeting in Vancouver on Feb. 3rd unanimously passed the following resolutions:—

1. Resolved that it is the judgment of this meeting that timber and mining licenses should be granted only to British

subjects, and the citizens of such countries as accord similar privileges to British subjects within their own territories.

2. That, so long as Canadian lumber going into the United States is taxed, an equal tax should be levied on lumber coming from the States into Canada.

3. That there has not been, nor is there at the present moment, any more need for United States troops to enter any part of Canada, to accompany or protect a relief expedition to the Klondike, than there is for Canadian troops to enter the United States to protect New York or Chicago.

4. That the disputed territory should be administered jointly by Canada and the United States, until the boundary line between the two countries is finally settled.

5. That, while it may be right to carry supplies as a free gift to needy or starving miners, if there be such, it is manifestly unfair to permit goods to be carried in free of duties and sold in competition with Canadian merchants, especially as it is quite within the reach of the Canadian government and merchants in general to provide all necessary supplies for the miners, at a date as early as that at which the United States government can furnish said supplies.

These five resolutions have the right ring about them. They preach a gospel of Canada for Canadians and unfairness to no man. Canada would be better off if that spirit was more frequently displayed. We owe no favors to the United States and we have none we need ask. We are quite able to take care of ourselves, and the sooner the United States learn that we propose to do it, the sooner will the place we merit among the nations of the world be accorded us.

CANADIAN PRESS ASSOCIATION.

The Canadian Press Association meets March 10th and 11th, at Ottawa. In anticipation of the meeting its president, Major J. B. MacLean, sent out a letter. This communication was marked "Private and Confidential," but inasmuch as it has been exploited in the columns of both the daily and weekly press the author of it can scarcely take umbrage at its discussion by THE CANADIAN MANUFACTURER.

There is no man who has greater need to preach the doctrine of live and let live than the editor of the average newspaper of to-day. More, perhaps, than any other class of men, the owners of newspapers depend upon the good-will of their fellows. Were it not so we should not have in existence many of the irresponsible, haphazard sheets that are published to-day and which, to their shame be it said, are the harpies and vultures whose scurrility is a disgrace to the newspaper profession. The extent of toleration is responsible for their continuance, and even those journals which are a credit to their owners and a credit to the clientele that support them are in many instances under obligation to the good will of those who might easily obtain their ends through the medium of other newspapers, should they be antagonized by the journals they now support.

The Canadian Press Association promise in their circular that matters of more than usual importance shall be considered at their coming meeting. Among these matters is that of insolvency laws and their relation to British advertising. Upon this point the President of the Association says:

British merchants and manufacturers are liberal advertisers, but only a very small portion of the heavy expenditure in colonial and foreign advertising comes to Canada. I spent over six months last year in Britain going carefully into this whole question. Mr. R. V. Somerville for The Toronto Globe did the same. We found that with few exceptions they

politely but positively refused to discuss advertising, because they did not want to do business with Canada. They had tried it, but had lost money owing to the unscrupulous methods of Canadian buyers, due to a lack of a uniform and honest insolvency law. This was confirmed by all the great advertising agencies, who did everything they could to assist us. We found that though Canadians had a greater consuming population than the Australias and Africa combined, yet the highest sum the best Canadian papers get is \$5,000 to \$6,000 annually, against \$50,000 to \$75,000 given to the leading papers in other colonies. We can never increase our advertising revenue from Britain—in fact it is growing less—until we have a general law for the fair distribution of insolvents' estates and for the punishment, as in other colonies and at home, of frauds on creditors. The Association will be asked to support the Board of Trade in urging the Government to pass such a law. I am sure you will agree with me that the matter is of great importance to all publishers, and for this reason make it a point to attend the meeting.

Unfortunately, what Major MacLean says is only too true, and steps cannot too soon be taken to remedy the trouble. In view of the growing intimacy between Great Britain and Canada and the extension of trade in both directions the necessity for an insolvency law that will guarantee the British exporter honest treatment by Canadian buyers is very apparent. Other propositions to be laid before the Association are not less important, but we must oppose rather than support them, and it is to be hoped they will not be allowed to go through. For the credit of the Association it would be better to take a broader view of affairs and display less shortsightedness. At the meeting of the Association last year the following motion was carried:

That whereas the removal of postage on newspapers fifteen years ago was not solicited by publishers, that value was given to the community at the time by the reduction of newspaper prices, and that since that the scale of newspaper expenditure has been graded to the existing condition.

And whereas the fiscal system of this country recognizes the promotion of home interests, and that newspaper publishers without receiving any protection themselves in any shape, save by the present postal law, are forced to contribute to the advantage of other manufacturers and interests by the customs duties on type, printing presses, printing machinery of all kinds, type furniture, paper, ink, stereotype plates, newspaper cuts, in short absolutely every product that enters into the manufacture of a newspaper.

Resolved, that this Association as a body take no action in regard to the Postmaster-General's proposition to reimpose postal rates, except to send a copy of this resolution to every publisher in Canada, suggesting that should this question come before Parliament, each parliamentary representative should be asked to insist upon reduction or abolition of the above customs duties on publishers' materials as a necessary correlative to the reimposition of postage.

Now, the carrying into execution of the proposition contained in the above resolution involves more than the Canadian Press Association gentlemen appear to realize. They are greatly afraid of the reimposition of postage which they consider would leave their newspapers unprotected. Perhaps some of them could explain how the postal privileges they now enjoy are in anyway a protection. How many tons of mail matter went free under the 72,277,711 newspapers and periodicals posted from the offices of publication in 1896? Do the Canadian Press Association not know that under the present law advertising matter to the amount of many tons went free through the mails, when the imposition of postage

would have diverted thousands of dollars into the pockets of Canadian publishers?

Under the present postal law thousands upon thousands of American newspapers are sent into Canada to compete with Canadian publications, and not the least evil from this standpoint is that publications printed and circulated solely to advertise fake schemes are strewn broadcast over the country at the expense of the taxpayer. The cost of transporting these sheets through the mail is immense, and the end is not there, because hundreds of dollars are taken out of Canada every year through the schemes advertised by them. Where is the protection that the Canadian Press Association so much fear to lose?

The request for abolition of the duties on every material used by publishers is childish and should not be for one moment entertained by the Government. The results of free binder twine have been so favorable that even from the Free Trader's standpoint it would scarcely seem desirable to risk the ruin of the large interests involved in manufacturing publishers materials in Canada. Aside from the effect in that line there is another phase of the question that should weigh with the Canadian Press Association heavily enough to prevent them from asking for legislation that will prove a boomerang to their own interests. Permission to bring in their materials free of charge would be a bonanza to American publishers of the fake advertising sheets. They would send in their stereotyped forms and run off hundreds of thousands of their papers in Canada, thus adding to the competition already over great.

Taken all together, the Canadian Press Association will surely realize their anomalous position when they stop to think over the facts and possibilities of the case. If they persist in their present course they will make themselves a laughing stock among those who are accustomed rather to look up to them as broadminded leaders of opinion. It is to be hoped that for their own sake they will take no such step as they propose. Should they still continue along the line they have marked out for themselves we look to the Government to prevent the enactment of regulations that would be injurious to large manufacturing industries and even to the very Press Association themselves.

CANADA PUBLIC DEBT.

How many Canadians are there who can tell within millions of dollars the amount of the public debt of the Dominion of Canada? How many are able to analyse and explain the financing and distribution of the debt? How many can deduce from the official statement indications of prosperity or the opposite, or prove good or bad management of our national affairs? Interest in these matters has lately increased to a remarkable extent and for the information of those who desire to understand better the workings of Dominion finances we present the following analysis, for which we are indebted to The Shareholder:

From the statement of the public debt, as ascertained to January 31st last, it appears that the total gross debt of the Dominion is \$340,409,051, with assets of \$78,055,664, making the total net debt \$262,323,386. This is an increase for the month of \$152,744 in the total gross debt, with a decrease of \$2,273,482 in assets, making an increase of \$2,456,227 in the total net debt. Compared with the same time last year there

is an increase of \$10,202,995 in the total gross debt, and one of \$7,799,557 in the assets, making the increase in the total net debt \$2,403,433, notwithstanding the fact that an additional loan of \$10,000,000 was made during the year. The increase for the month in the gross debt appears in two items, savings bank deposits and miscellaneous and banking accounts, the other items, with the exception of funded debt payable in England, Bank Circulation, Redemption Fund and Province Accounts (which are unchanged), being reduced. The increase in savings bank deposits is \$297,818, and that in miscellaneous and banking accounts \$141,830, while in debt payable in Canada there is a reduction of \$42,667, in Dominion notes one of \$209,365, and in trust funds one of \$4,871. The changes compared with January, 1897, are an increase of \$4,866,666 in debt payable in England, one of \$2,838,097 in Dominion notes, one of \$2,058,959 in savings bank deposits, one of \$37,532 in bank circulation redemption fund, one of \$33,872 in trust funds, and one of \$705,955 in miscellaneous and banking accounts, with a reduction of \$337,554 in debt payable in Canada. The large increases in Dominion notes and savings banks, forming unitedly the sum of \$4,897,057, exceed the increase in the total net debt by \$2,493,618, a feature which should attract more than ordinary attention. That these increases are desirable and are indicative of improved business conditions as well as of individual thrift cannot be denied. Were it not for these increases, and notwithstanding the addition to the debt carried by the new loan, the total net debt would be \$2,493,618 below what it was a year ago. On reference to the assets we find that during the month of January \$595,706 was added to the sinking funds, which figure at \$39,577,123, while miscellaneous and banking accounts show a reduction of \$2,869,189, the total of these being \$21,638,793. The increase in sinking funds for the year is \$2,209,060, while at the same time there is one of \$85,000 in other investments, one of \$2,130 in province accounts, and one of \$5,503,366 in miscellaneous and banking accounts. The official figures of the public debt, as ascertained to the 30th January, 1897 and 1898, are as follows:

	1896.	1897.
LIABILITIES—		
Payable in England.....	\$218,225,503.55	\$227,958,836.88
“ Temporary loans....	4,866,666.66
“ Canada	9,559,781.27	9,222,226.41
Bank Circulat'n Redempt'n Fund	1,846,829.27	1,884,362.16
Dominion Notes.....	21,732,212.01	24,570,309.26
Savings Banks.....	47,406,424.64	49,465,384.60
Trust Funds.....	8,362,147.74	8,356,319.73
Province Accounts.....	16,406,986.87	16,406,443.66
Mis. and Banking Accounts	1,799,203.13	2,505,168.33
Total Gross Debt	\$330,206,055.14	\$340,409,051.03
ASSETS—		
Investments—Sinking Funds....	\$37,368,063.65	\$39,577,123.71
Other Investments	6,176,527.95	6,561,527.95
Province Accounts.....	10,606,089.41	10,608,219.73
Mis. and Banking Accounts	16,133,426.87	21,638,793.54
Total Assets.....	\$70,286,107.88	\$78,055,664.93
Total net debt.....	\$259,919,947.26	\$262,323,386.10
do. 31st December.	256,667,475.88	259,867,158.29
Increase of debt	\$3,252,471.38	\$2,456,227.81

The expenditure on capital account for the month of January was \$356,790, of which \$257,997 was on public works, railways and canals, \$5,802 on Dominion lands, \$93,300 on railway subsidies, and \$63 on Militia. This brought up the total expenditure under this head to \$2,719,045, of which \$1,892,426 was on public works, railways and canals, \$43,365 on Dominion lands, \$659,519 on railway subsidies, and \$124,668 on Militia. This was an increase over the same time a year ago of \$346,824. Public works, railways and canals, which includes the enlargement of the St. Lawrence canals, has an increase of \$550,826, Dominion lands one of \$3,527, railway subsidies one of \$277,264; while the militia shows a reduction of \$480,151. The total amount

expended on capital account during the seven months of the current year exceeds the increase to the net public debt for the same time by \$315,606. The official statement of expenditure on capital account for January, 1897 and 1898, and for the seven months of the two years is as follows :

STATEMENT OF EXPENDITURE ON CAPITAL ACCOUNT, ETC.

	Month of December, 1897.	Total to 31st Dec., 1897.	Month of January, 1898.	Total to 31st Jan., 1898.
Public works,				
R'ys & Canals..	\$148,290.23	\$1,341,599.33	\$257,997.77	\$1,892,426.13
Dom. Lands..	7,771.11	39,888.42	5,808.47	43,365.56
R'y Subsidies..	163,700.00	382,265.30	93,300.00	659,519.97
Militia	78,311.09	604,820.00	63.67	124,668.24
N.-W. Terri- tories Rebel.	-187.46	3,708.09	-379.87	-934.34
Total ..	\$392,884.97	2,372,221.14	356,790.04	2,719,045.56

IT WILL DO NO HARM.

The Ontario election has been held. The result is so close that by the Conservative organs a bare majority of seats is claimed for Mr. Whitney. To do this they claim as Conservatives Hon. F. E. A. Evanturel and W. R. Beatty of Parry Sound. The Globe claims six majority for the Hardy Ross Government. As a matter of fact, a majority of three or four is behind the Liberal leaders. There are two possibilities ahead. Between now and the session of the Legislature the Government may secure enough seats to give them a working majority, for it is a matter of expectation that bye-elections go with the Government. On the other hand, Mr. Whitney's prestige, by reason of his splendid showing in the general election, may turn the bye-elections to him.

The result of the election will, at any rate, be salutary. The Hardy-Ross cabinet have been admonished that they must be very careful in their dealings and legislation. The Conservatives are encouraged still more to keep a watchful eye to safe-guarding the rights of the people whose interests were so nearly placed in their keeping by the vote on Tuesday last.

In the meantime Ontario politics will be in a condition of ferment until the next session of the legislature, and there is just element enough of uncertainty to prevent either party from falling into habits of sloth.

Ontario's resources will, therefore, stand a better chance of immediate and profitable development than ever before.

EDITORIAL NOTES.

When Colonel Daniel F. Treacy, of the Davenport & Treacy Company, recently returned from his extended trip, he was emphatic in his declaration that there is a remarkable improvement in the condition of the Canadian piano trade; and that both the manufacturers and dealers in the Dominion are much gratified with the present conditions and anticipate making even a better showing during the new year. Colonel Treacy added that there has also been a decided advance in grade and quality in the Canadian pianos, and that more enterprise has been shown in the last year or two than had previously been displayed at any time.—Musical Age.

Science has again come to the aid of religion. In a London Exchange Mr. Alfred Storey proposes that missionaries to foreign lands be educated in the languages of those countries by the use of phonograph cylinders containing primers pronounced by educated natives. This would obviate the

necessity of spending a year abroad to learn the language and greatly lessen mission expenses.

Senator Clemow has secured from the Senate a committee to investigate the feasibility of a canal from Georgian Bay to Montreal by way of the Ottawa River. We shall await with interest the outcome of the committee's work which should be productive of much valuable information about this all-Canadian waterway route from the north shore to the ocean.

In a recent letter to the Philadelphia Ledger, Frank C. Higgins writing from London described the progress of Americans in the markets of Europe. Incidentally he mentioned bicycles which he said were displacing British makes when the remedy was applied of barring American cycles out of the cycle shows while British mechanics refused to repair damaged American machines. We just mention this in passing to show that there are more ways of protection than through a tariff.

The other night in the House of Commons Sir Charles Tupper referred to the alien labor bill, the McKinley bill, and the Dingley bill, and other repressive measures passed by Congress. The time had come, in his judgement, when, if Canadian rights were to be maintained, we should show the great republic that, while willing to maintain the most friendly relations with her, we were not prepared to sacrifice our indefeasible rights. What reason had the United States to trample upon Canada with impunity? His policy would be to treat the United States the same as they treated us in reference to alien labor laws, tariff laws or mining laws. Sir Charles declares himself in favor of exactly the policy which this journal hopes to see adopted and vigorously put into execution.

It doesn't happen oftener than once or twice in a century that Canada gets the best of an argument with her big neighbor across the line. She has very much the best of it in the trade in outfitting and forwarding supplies of all kinds for the great gold fields of the upper Yukon, and she would be foolish indeed if she failed to take the full benefit of her opportunities by means of her "thirty per cent. wall." Meanwhile American thrift and energy may be depended upon not to come back altogether empty handed from the treasure beds of the new Eldorado.—American Economist.

Thanks, brother Economist. We are always glad to hear words of praise from people of sound doctrine.

The position in this country as between free imports and duties was, we think, very fairly and accurately stated at the recent annual meeting of the Farmers' Club in a paper by Mr. R. H. Rew, on British agriculture. Mr. Rew examined the condition of agriculture as it was 100 years ago, as it was in 1846, and as it is now, very impartially, and while he could not ask the farmers to look for protection, he pointed out that the claim set up in certain of our industries for a living wage logically involved in the end protective duties, and that the working classes, who will in the long run have their will, do not shrink from protection as a possible expedient. It is obvious that no industry can fix the cost of production or any material part of it, such as labor, and allow unrestricted competition from countries where the cost is lower. Prices must rule wages, and if the latter are to be kept up to a certain level, the former must be kept up, too. Signs are not wanting that both political parties in this country are

beginning to coquette with the question of additional duties for revenue purposes, and they would give a king's ransom to know which way popular feeling is running.—British Trade Journal.

Signs are not wanting that Canada will presently reap the reward of her persistent efforts to open up a trade with South Africa. She has much to offer in exchange for South African products. Already Canadian electric and other machinery is known in South Africa, whilst her natural products are also those which the Afrikander requires. Canadian timber competes with that of Norway and Oregon on the land, and her tinned fish has long found a market in the sub-Continent. She now seeks to open up a trade in her almost boundless dairy products. Speaking recently on the opening which South Africa affords to this class of Canadian goods, Mr. G. H. Flint, of Montreal, who lately made the tour of South, West and East Africa, says that it is almost impossible to get first-class butter and cheese in the country, while eggs are abnormally dear, 2s. per dozen. The high prices are, he correctly observes, due to the adjustment of tariff for the protection of the farmer. With the difficulties of cold storage transportation overcome, the prospects for Canadian products are, however, decidedly favorable. Elsewhere he discovers a fact which is consoling to the British merchants' amour propre, that Afrikanders prefer the British and Canadian method of doing business to that of the American. The latter draws at sight on his debtor, the sight draft, forwarded by mail steamer, arriving before the delivery of the goods, thus importing prepayment; while the former requires payment only after delivery. The progress of Canada's commerce is cause for satisfaction, and while benefiting her own industries, she is drawing tighter the bonds of a common solidarity.—British and South African Export Gazette.

We are always glad to hear words of praise from our contemporaries in the Old Land and praise from a journal specially qualified to deal with colonial matters should be an added incentive to Canada to keep on along the same line.

In an interview published in *The Globe*, Mr. A. E. Kemp, referring to the contract with Messrs. Mann and McKenzie to build a railway from Telegraph Creek to Tesline Lake, expresses himself as of opinion that it was necessary the railway should be built, and that it is the best bargain, under the circumstances, that could have been made. Mr. Kemp says:

The Government must have been in possession of information for some time by which they knew that it was in the interests of the country that this short line of railway should be built. Since they came into possession of that information there has been ample time to advertise for tenders and conduct the transaction on ordinary business lines, instead of consummating such a transaction with the first comers. The deal is open to criticism on these grounds, as all such deals are, and the sooner our Governments and leading politicians come to the conclusion that the time has arrived when such matters shall be dealt with on purely business principles the better it will be for the interests of the country at large. It may be possible no better bargain could have been made had other contractors tendered, yet the public, I think, would be better satisfied had tenders been called for.

Representatives of the Standard Oil Company of Oswego were in Ottawa last week and made a heavy purchase of box lumber from the St. Anthony Lumber Company of Whitney. It is currently reported amongst lumbermen that it amounts to 8,000,000 or 10,000,000 feet. The St. Anthony Company have started loading cars at Whitney at the rate of ten per day. This purchase, along with others in December and January, greatly reduce the stock of box lumber in the Ottawa Valley, and removes all fear of there being a surplus

of this class of lumber that was so confidently predicted would arise from the imposition of the \$2 duty by the United States Government. In fact, the stock of unsold box lumber in the Ottawa Valley is less than it has been for several years.—Toronto World.

THE CANADIAN MANUFACTURER has contended all along that the American consumer must have our lumber and that if Congress imposed a duty upon it the American consumer must pay it. The accompanying excerpt from *The World* would appear to be fairly good justification for our sizing up of the situation.

The Maritime Merchant announces that an arrangement has been entered into by which J. A. Chipman, of Halifax, N.S., and W. T. James, of Hamilton, Bermuda, have formed a sort of partnership, with the object of promoting and facilitating the exchange of the products of Canada and the sub-tropic islands. The proposal should prove beneficial to both countries. The Merchant promises to report the progress of the move, and we shall await with interest the anticipated success of this new departure in trade development.

The question of tariff on oatmeal and oats is one that the Dominion Government should deal with during the present session. Manitoba mills have been struggling against fate, and a big protest is entered against the continuance of present conditions. As matters stand now the tariff on oats is higher than the tariff on oatmeal. This is a very poor way of aiding an industry, and the Government will surely take some action to secure Canadian oatmeal millers their home market.

The advantage is altogether with the United States manufacturer, as the Canadian season comes later than ours, and an opportunity is thus given to export into the Canadian market such surplus as may exist in the United States after our own harvest is over.—Farm Implements, Minneapolis.

The language quoted above is used with reference to the binder twine industry, and might be advantageously taken note of by the members of a cabinet not many miles from Ottawa, when they next have the tariff under consideration.

Yokohama advices are to the effect that the Japanese navigation bounties are to be increased from \$5,000,000 to \$8,000,000 for the next fiscal year. Such papers as the *New York Evening Post*, *Chicago Times-Herald*, and other styles of the cold-blooded, cod-fish aristocracy are wont to decry the bumptiousness of the little Japs; and yet if Uncle Sam dreads war with Spain how does he hope to cope with Japan whose fighting strength is much stronger than that of the tottering, burnt-out monarchy?—National Industrial Review.

Japan seems likely to become the Great Britain of Asia, but she has early learned to avoid some of Great Britain's present errors, and make use of the protection lessons taught by Great Britain's navigation acts of the time of Cromwell.

The latest announcement we have of Russia's industrial progress is that, near Saratov, on the Volga River, a steel works is being constructed. The plant will cover ninety-two acres of ground, and a model village is being built for the workmen. The sound doctrine of protection has been thoroughly adopted in Russia, and we may expect, within a few years, that Russian manufacturers will be sending their products into markets where the British manufacturer deals to-day.

CAPTAINS OF INDUSTRY.

The following items of information, which are classified under the title "Captains of Industry," relate to matters that are of special interest to every advertiser in these pages, and to every concern in Canada interested in any manufacturing industry whatever, this interest extending to supply houses also.

If a new manufacturing enterprise of any kind is being started, or an electric lighting plant instituted, or an electric railroad, or a telephone, or a telegraph line is being constructed; or a saw mill, a woolen, cotton, or knitting mill; or if any industrial establishment has been destroyed by fire with a probability of its being rebuilt, our friends should understand that possibly there may be something in the event for them. Do you catch on to the idea?

The starting of any such concern means a demand for some sort of machines, machinery, or supplies, such as steam engines and boilers, shafting, pulleys, belting, lubricants, machinery supplies, wood or iron working machinery, ventilating and drying apparatus; pumps, valves, packing, dynamos, motors, wire, arc and incandescent lamps, and an infinite variety of electrical supplies, chemicals, acids, alkalies, etc. It is well worth the while of every reader of the Canadian Manufacturer to closely inspect all items under the head of Captains of Industry.

An agreement has been signed between the Nova Scotia Midland Railway Company and the Nova Scotia and Federal Governments, by the terms of which each of the latter agree to subsidize the road to the extent of \$3,200 per mile, for the construction of a railway from Windsor to Truro. W. G. Reid, of Montreal, has the contract to build the road, which is to be fifty miles in length.

At the present time the Grand Trunk Railway System is having the heaviest run of freight in the memory of the oldest employees. The company has ordered the construction of a thousand new cars—500 in Detroit, and 500 in the Canadian shops.

The G.T.R. will erect an oil house at London, Ont., and a new round house at Sarnia. The new Berlin station is to be completed by Christmas, and the capacity of the new freight sheds at Wiarton is to be doubled.

The Hudson's Bay and Pacific Railway Company has applied for an amendment to their charter, to abandon the projected line from Prince Albert to Calgary, and to establish instead, the branch between Prince Albert and Edmonton, and to point at or near the Yellow Head Pass.

The Lotbiniere and Megantic Railway Company is building a wharf 160 feet long at Cap a la Roche, Que., to facilitate the shipping pulp wood, bark, etc., from that section.

The Ashcroft Water, Light and Power Company has been incorporated to do business at Ashcroft, B.C.

The Kaslo Transfer Company of Kaslo, B.C., have sold out to P. Hannah.

An important innovation is being made on the Canadian portion of the Grand Trunk Railway system, in substituting compressed air for steam as a motive power in their shops. It is said to be cheaper than steam, and has been applied successfully in the shops at Toronto, Belleville, and other places.

There seems to be a strong probability that the G. T. R. will double track the line from Hamilton to Niagara Falls.

The Ottawa and New York Railway Co., have offered to build their workshops in Ottawa if they are given a bonus of \$100,000.

The Tilsonburg, Erie and Pacific R.R. is constructing a connection at Tilsonburg, Ont., with the M.C.R. and will build a \$20,000 steel bridge across Otter Creek.

The Q.C.R. Company are about to extend their shops at Newington, near Sherbrooke, Que., which will require an expenditure of not less than \$70,000. The contracts have not yet been let.

It is said that the G.T.R. will have running rights over the new Toledo & Northwestern Railway, thus getting into the Ohio coal fields.

A charter is applied for by a company which proposes to build a railway from Cranbrook, B.C., to the North Star mine, thence to head waters of St. Mary's River, and Kootenay and Arrow Lakes.

Application is to be made to the Manitoba Legislature for a charter for the Winnipeg and St. Andrew's Rapids Railway.

The Winnipeg Winter Transportation Company is seeking incorporation with a capital of \$750,000, to do business within one hundred miles of Winnipeg.

The reig Manufacturing Company is applying for incorporation and will manufacture flavoring extracts in Montreal.

The Montreal Grain Elevating Company is applying for incorporation.

Nineteen of the twenty-four piers of the new Victoria bridge at Montreal are complete. Wm. Gibson, M.P., is the contractor for the masonry and expects to be out of the way of the iron workers by the first of May. The Dominion Bridge Company have almost finished their contract and the bridge will be finished late next fall.

Goderich voted by a majority of 146 in favor of the town taking \$50,000 stock in the new elevator.

Reid Bros. Manufacturing Company are moving their big pulley factory from their present premises, 102-108 Adelaide west, to more commodious premises at 257 King street west.

The Albert Bell Engine Works, of Dunville, Ont., is constructing a yacht engine and boiler for Frank A. Humber, of Goderich, and a yacht engine for Horn Bros., Lindsay, Ont., besides other work.

The Midland Elevator Company has been incorporated, with a capital of \$180,000. The incorporators are all of Port Huron.

The General Engineering Company, of Ontario, has been incorporated to deal in general machinery. Capital \$40,000.

Booth & Gordon are removing their saw-mill from Sudbury to Raeside.

The Deschenes Electric Company, Limited, has taken out a license to supply electric light and power in the city of Ottawa and county of Carleton. The company which was granted a charter in January, 1896, obtained from the Dominion Government the right to lay cables from the Ottawa River at the foot of the locks on both banks of the Rideau Canal to the canal basin, agreeing in return to supply electric current free for the lighting of the canal locks, basin, etc. The directors of the company are: W. J. Conroy, R. U. Conroy, Alex. Fraser, David MacLaren, and Charles Magee.

Every Building Deserves a Good Roof.

AND OUR

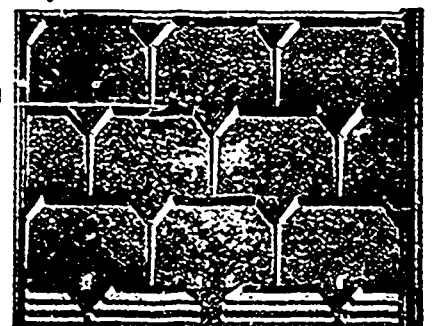
EASTLAKE STEEL SHINGLES....

Are valued all over the country for their special reliability. Wood or slate can't compare with them in any particular. They are fire and lightning proof, and have a patent side lock and concealed water gutter that makes leakage or corrosion of the metal quite impossible.

They are the quickest laid shingle on the market, and last indefinitely if given a coat of paint every five years or so.

Use genuine Eastlake Shingles and we know you'll be satisfied. Catalogue on application.

METALLIC ROOFING CO., Limited, 1180 KING ST. WEST, TORONTO.



The Guelph Foundry Company are now building a line of hot air furnaces.

An interesting invention has been made by Mr John McConnell, of McConnell's Electric Carriage Works, Guelph. It consists of a roller bearing for carriage wheels which ought to reduce draft a great deal.

St. Charles Seminary, Sherbrooke, P.O., will be rebuilt this summer. A number of business blocks will also be constructed in this busy eastern town.

Oliver Young, of Magog, Que., is building a handsome steam launch for a Brooklyn man who summers at Owl's Head.

The Bowmanville Cycle Wood Rim Company report that business is flourishing. They export one thousand pairs of rims per week to England.

R. G. Sills, of John Lewis & Co., the Belleville hardware people, has gone to Vancouver to establish a branch store.

The Montreal Transportation Company's new elevator at Kingston is being rapidly pushed to completion. Its capacity will be the same as that of the Owen Sound Elevator, 800,000 bushels.

Five hundred dollars damage was caused by a blaze in the boiler room of the Waterloo Manufacturing Company, of Waterloo, Ont.

The Woodstock Sash Balance and Lock Company of Woodstock, N.B., has been granted letters patent and will carry on business in the eastern town. J. Chipman Hartley is solicitor for the new company which is capitalized at \$20,000 in one-dollar shares.

The Cataract Power Company has awarded contracts for building a transforming station to reduce the voltage of the current before it is delivered into Hamilton.

The Methodists of Sked's Mills, Ont., are without a church. It was destroyed by fire just after it had been renovated at a cost of \$300. Loss \$1,500.

Sydney, B.C., is offering a fifty thousand dollar bonus to a smelter which is seeking a location.

The Wanzer Lamp & Manufacturing Co., of Hamilton, write us that they have not changed their firm name, as was reported. They have recently sent shipments to India, China, the British West Indies and South Africa and report that the prospect for domestic trade is good.

The March Ladies' Home Journal contains the last literary production of the late Alice Wellington Rollins. It is a humorous character sketch—"How Philippa's Husband Made Her Smile." The social life and customs of New Yorkers of a century ago are mirrored by Mrs. Burton Harrison, who writes of "When Fashion Graced the Bowery." Lillian Bell relates the amusing experiences of her yachting voyage on the English Channel, and a "Cabinet Member's Wife" gets closer and closer to Washington Society. "In Fashionable Siberia," Thomas G. Allen, Jr., presents the bright, interesting side of life in that boundless, Asiatic province, uprooting many erroneous ideas concerning it. Every one will enjoy seeing "The Author of 'Titus, a Comrade of the Cross,'" at home, and will be interested to learn how she came to be a writer. "The Decay of the Sunday-school" is critically analyzed by

Edward Bok, who reveals the cause and prescribes the remedies. Pictorial features tell of "A Day in a Country School," and show tantalizingly cozy views "Inside the Rooms of College Girls." The concluding chapters of Hamlin Garland's novelette, "The Doctor," are published in the March Journal, also a short story with Judas as the central figure. Mrs. S. T. Rorer writes on "What to Eat When You Have Indigestion" and "Cooking for the Sick and Convalescent. Easter hats and bonnets, jackets and wraps, and the newest spring gowns are also practical, special features, and very timely ones. By The Curtis Publishing Company, Philadelphia.

The T. & H. Electric Company, successors to Kay Electrical Manufacturing Company, report the following recent sales in Hamilton, Ont. Norton Manufacturing Co., 15 h.p. motor; Bain & Colville, 20 light dynamo; Max Bernstein, 1 h.p. motor; Leitch & Turnbull, 10 h.p. and three 15 h.p. direct connected elevator motors and attachments; Bain & Satche, one 1 h.p. motor and 12 light dynamo; Electric Light & Power Co., several motors: G. H. Meakins, Esq., one 1 h.p. motor; Ontario Plating Works, one 400 gal. plater; Domestic Specialty Co., one 5 h.p. motor; D. Moore & Co., Limited, one 150 gal. plater; Tolton & McKay, one 1 h.p. motor; City Brass Foundry, one 5 h.p. motor; Hand & Teale, one 1 h.p. motor; Post Office, one 1/2 h.p. motor; Geo. D. Membership, one 3 h.p. motor. In all twenty-four machines.

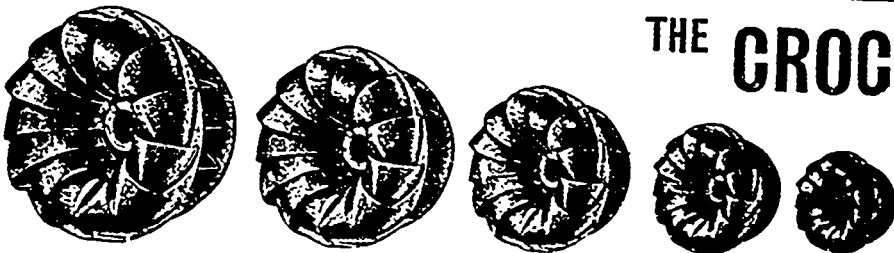
The Dominion Government is taking steps to improve the navigation of the Rainy River. It is also understood that the Fort Frances lock is to be at once improved.

**BRYANT . .
ELECTRIC . .
SUPPLIES . .**

By special arrangement with the manufacturers, we are placing in stock on Montreal, a complete line of Bryant specialties, including K. W. Rosettes, Bryant Sockets, Branch Blocks, etc., etc. Our catalogue B. showing Bryant goods is now ready, and is the most complete catalogue ever published for the Canadian trade. Write for one.

The IMPERIAL INCANDESCENT LAMP IS WINNING FAST FRIENDS WHEREVER USED.

JOHN FORMAN, 644 CRAIG ST., MONTREAL.



**THE GROGGER IMPROVED
...TURBINE.**

SEND FOR OUR NEW CATALOGUE
JUST ISSUED.

A HIGH-GRADE, MODERN WHEEL—ECONOMICAL
AND EFFICIENT IN THE HIGHEST DEGREE

The best combination of hydraulic science with practical results now on the market. Complete Water Power Plants built and installed.

It will interest you.
Our Prices will Please,
and to Purchase
Our Machinery will Pay you.

The JENCKES MACHINE CO., 28 Lansdowne St.,
SHERBROOKE, Que.

The Richmond County Electric Company has purchased a sixty k.w. S.K.C. two phase generator from The Royal Electric Company.

Bryan & Lee, cigar manufacturers, of Winnipeg, have dissolved partnership. Mr. Bryan will carry on the business.

The Canadian Produce and Packing Company, Limited, of Winnipeg, has secured letters of incorporation.

Rathbun & Company, of Deseronto, Ont., recently shipped a large quantity of doors to South Africa.

Kokstad, Cape Colony, South Africa, will shortly ask tenders for an electric lighting plant. Canadian firms have every chance to secure the contract.

The Portuguese at Delegoa Bay, South Africa, will erect a lighthouse on Cockbury Bank. Here is another chance for business.

The extension of the sewerage system of Durban, South Africa, will involve the placing of orders for fittings.

Buluwayo Town Council are going to instal a refuse crematory.

Hon. J. A. Longley, of Halifax, N.S., is the Canadian director of a Boston concern which proposes to erect summer hotels in Nova Scotia. The first of these hotels will be built at Wolfville.

Messrs. J. A. Speight & Company, of Acton, Ont., have installed a double hair press for Messrs. Beardmore & Company's Bracebridge tannery.

Markham Electric Light Company have been burned out.

The Electric Light Company, of Edmonton, N.W.T., has purchased a new plant complete, including a seventy-five k.w. S.K.C. two phase Generator with Stanley transformers, from The Royal Electric Company.

Charters have been granted to The Windsor Brewing Company, Limited, The Essex Basket Company, Limited, and The Dandalk Woolen Mills Company, Limited.

The Ontario Powder Works Company, of Kingston and Tweed, have started work.

Messrs. Wood & Buchanan have started in the furniture business in Brockville.

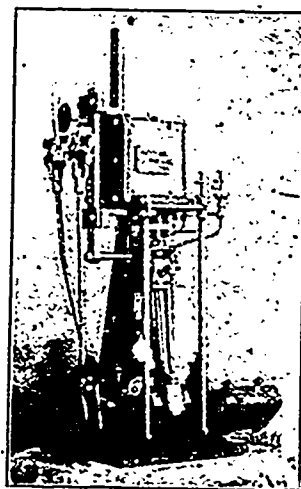
George Midgitch's foundry at Bothwell has been destroyed by fire.

The Ossekeag Stamping Company, of Hampton, N.B., have purchased a 200 light incandescent plant for lighting their works, and have placed the order with The Royal Electric Company.

La Banque Nationale has opened a branch at Joliette P.O., and Molsons Bank has opened branches at Vancouver, Victoria, and Revelstoke, B.C.

ALBERT BELL ENGINE WORKS

DUNNVILLE, ONT. Makers of
YACHT ENGINES, 1 H.P. to 50 H.P.
Safety Water Tube BOILERS
PROPELLER WHEELS
Stationary Engines and Boilers



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WRITE FOR LATEST CATALOGUES AND SAMPLES TO

THE LONDON EMERY WORKS CO., 10,12 VINE ST., CLERKENWELL, LONDON, E.C.
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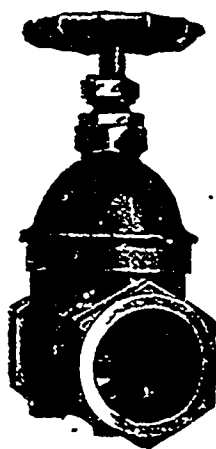
CLOTH AND PAPER.
 GLASS & FLINT PAPER.
 "Atlas Brand"

"FLORA" Knife Polish
 in 3d. Gl. & 1, Tins.
 Ground, Washed & Flour

WHEELS of highest
 quality for general
 & special purposes.
 Grinding Machinery.



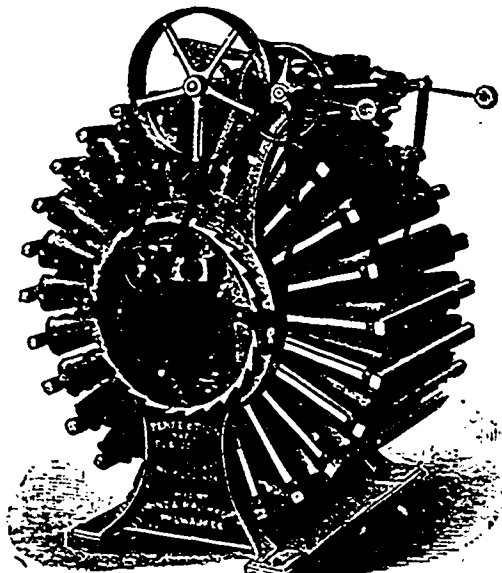
The WEBBER Patent
Straitway Valve



FOR...
 Steam,
 Water
 or
 Gas...
 —
EVERY
VALVE
TESTED.

The Kerr Engine Co., (Limited),
 WALKERVILLE, ONT.
 Sole Manufacturers for Canada. Send for
 Price List.

The Perfection Dust Collector.



Patented

The only machine with a perfect Automatic Cloth Cleaning Device.

We Guarantee it to collect absolutely all the Dust, and discharge the air free and clean.

We Guarantee it will not make any back pressure against the fan.

Wm. & J. G. Greey,
 2 CHURCH ST.,
TORONTO, - ONT.

Sole Licensees for Canada.

The Canadian General Electric Company is building a power house and a pumping station at the Peterborough works. The contracts have been let as follows: Iron and steel work, the Hamilton Bridge Company; window frames, St. Lawrence Foundry, Toronto; galvanized iron work, Douglas Bros., Toronto.

The Grand Trunk Railway has arrived at an agreement with the Hamilton Radial Railway Company to allow the latter a crossing at Burlington, in return for the abolition of the level crossings over the G.T.R. line at Sherman avenue, and over the H. & N.W. division, near the Beach. This gives the Radial a route into Oakville, Ont., and the extension will probably be built.

The Canadian Cotton Mills Company, Milltown, N.B., has closed a contract with the Royal Electric Company for a thirty k.w. "S.K.C." two-phase dynamo wound to deliver 110 volts to the service mains. Within the past eight weeks this is the third large manufacturing establishment to install one of these machines of the Royal Electric Company's make, the Penman Manufacturing Company, Paris, Ont., and the Cockshutt Plow Company, Brantford, being the other two.

The corporation of Fort William, Ont., is about to erect an electric lighting plant.

There is being installed one 50 light 2,000 c. p. arc dynamo, with 35 double or all night lamps for lighting the streets of the town and the C. P. Railway yards, and for the incandescent service, and "S.K.C." alternating current dynamo with a capacity of 1,000 lights, with "Stanley" transformers throughout. The electrical equipment has been bought from the Royal Electric Co., and the engines and boilers from the Robb Engineering Co., Amherstburg, N.S.

A bridge to cost about \$10,000 is proposed to connect Sydney, Cape Breton, with the Intercolonial pier.

W. H. Smith & Co., are opening out a lumber business at Carnduff, Man.

R. H. Swallow is opening a lumber business at Ochre River, N. W. T.

A carpet factory is among the expectations of Galt for the near future.

The Graham Tire Co., Limited, of Toronto, has obtained a charter, and a charter has also been granted to The Toronto Wire, Iron and Brass Works Co., Limited, under which firm name Mr. Geo. B. Meadows will carry on business.

D. W. McLaren & Co., leather belting and mill supplies, Montreal, have placed R. M. W. McLaren in Galt to open a branch house and carry stock for the western trade.

The Knichte Furniture Company, of Hanover, Ont., are enlarging their present lumber dry-kilns. They have purchased two large fans and heater from the McEachron Heating & Ventilating Company, of Galt, for installation in the addition.

J. C. Murphy, of Hepworth, Ont., is erecting a large lumber dry-kiln at his mills at Murphy, Ont., for drying, heating, etc. He has purchased a heater from the McEachron Heating and Ventilating Company, of Galt.

The Ontario Rolling Mills Company, of Hamilton, have decided to erect a big steel building with an iron roof to take the place of that recently destroyed by fire.

A charter has been granted to the North Bay Supply Company, Limited.

The J. D. Moore Company, Limited, of St. Mary's, has obtained letters of incorporation.

The Sauble Falls Lumber Company, of Sauble Falls, Ont., is chartered.

A charter has been secured by the Strathroy Nursery Company, Limited.

The Canadian Casing Company of Montreal, have dissolved partnership.

Haslie, James & Company, Lumber, Nelson, B.C., have dissolved.

THE - - - -

WM. HAMILTON MANUFACTURING CO., Limited

MANUFACTURERS OF

THE "RELIANCE"

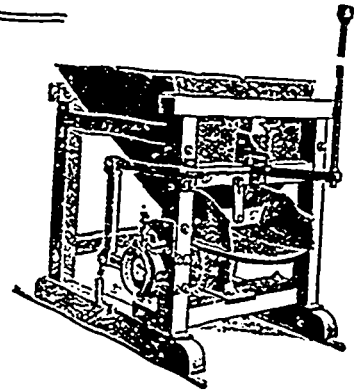
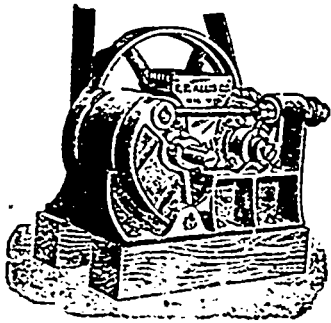
Mining, Milling

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FOR THE DOMINION OF CANADA

(Under License from The E. P. ALLIS CO., Milwaukee, Wis.)



Crushers, Rolls, Jigs, Concentrators, Screens, Stamps, Pumps, Compressors, Hoists, Boilers, Engines, Water Wheels, Etc.

Branch Office
VANCOUVER, B.C.

PETERBOROUGH, ONT.

The Mountain City Cycle Company, of Montreal, have dissolved partnership, and Alexander D. Chaplin continues the business under the old style.

Messrs. Edgar & Roy, of North Hatley, Que., have purchased from The Royal Electric Company, a sixty k.w. S. K. C. two phase Generator.

The Montreal Electric Company have sent out a card to their patrons and friends announcing their removal from 302 St. James' street to more commodious premises at 1898 Notre Dame street, in the Balmoral Hotel Block.

The Buckingham Reduction Company, of Buckingham, Que., is installing a 200 k.w. power generator. The order was given to The Royal Electric Company.

The Souris Rink Company, of Souris, Man., and the Morden Rink Company, of Morden, Man., have received letters of incorporation.

The Department of Public Works at Ottawa have called for tenders for constructing a wharf and approach at Honora Bay, Manitoulin Island.

The Canadian Produce and Packing Company has been incorporated and will do business at Winnipeg. James Stuart, Manager of the Winnipeg Gas Company, is one of the incorporators.

"Practical Plansifter Pointers" describes the Plansifter at considerable length and enumerates all its advantages. It is useless for us in this limited space to attempt to detail the advantages of the Plansifter to millers. Distribution of stock is one of the main points. The stock being dressed is always distributed in a perfectly even sheet over the entire sieve surface. Owing to the patented devices for distributing the stock it is impossible for any portion of the sieves to be loaded while other portions are bare or unequally covered. Pamphlets giving particulars may be had from Wm. and T. G. Greey, 2 Church street, Toronto.

Among the busy Hamilton concerns is the machine shop of Charles James, who is now turning out, among other work, 2,000 shoes for seed drills for the Northwest. This firm have just installed a new 30 inch drilling machine from John Bertram & Sons, Dundas, Ont.

A new \$10,000 school building is to be built at Sackville, N.B.

A sewage system for Pembroke, Ont., to cost \$16,000, is under consideration.

An engine is being placed in the Granby, Que., Rubber Co's machine shops.

The E. B. Eddy Co., Hull, Que., is spending \$20,000 in perfecting its fire protection system.

The plant of the Vulcan Iron Works Co., Winnipeg, has been bought by John McKechnie.

John Bertram & Sons, Dundas, are very busy building heavy machinery for shipping abroad.

The Boys' Home, Montreal, has received donations amounting to \$3,000 to be expended in building.

Favorable progress is being made on the piers for the Saskatchewan bridge at Edmonton, N.W.T.

J. Honeyman and E. J. Watson, architects, are employed on the new school building, Rossland, B.C.

MACHINERY and EQUIPMENT

FOR

Mines

MANUFACTURED BY

Canadian Rand Drill Co.,
MONTREAL.

A. KLIPSTEIN & CO.

122 PEARL STREET, NEW YORK.

Anilines, Dyestuffs and
Chemicals.

DELIVERY MADE AT NEW YORK, MONTREAL OR HAMILTON.

WRIGHT & DALLYN,
AGENTS,

HAMILTON, ONTARIO.

Sulphur

ROCK
ROLL
FLOUR
GROUND

English Recovered
- Sicilian -

Etc,

The Anglo-Sicilian Sulphur Co.,
Limited.

Arthur P. Tippet & Co.,

CANALIAN AGENTS,

30 St. Francois-Xavier Street,
MONTREAL.

ABBEY IMPROVED CHILLED SHOT CO.

(LIMITED)

NEWCASTLE, GREAT BRITAIN.

THIS SHOT IS NOW MADE BY A NEW PROCESS.

Samples sent on application.

Read the following Reports on our New Make of Shot:—
Sporting Goods Review states:—"The size and shape of pellets are good and are exceedingly hard. We understand that the demand for this shot has considerably increased and gaining in favor with sportsmen, to whom its excellence of manufacture appeals."

Arms and Explosives states:—"For soundness and general regularity of surface the pellets possess a very high degree of excellence."

W. W. GREENER, "the Great Authority on the Gun," speaks highly of Chilled Shot, and strongly recommends it in preference to soft shot.

TANNERS!

Grinders and other parts for Tunkhannock Bark Mills.

Guaranteed to be superior to the American in WEARING QUALITY and at LESS COST.

DAVILLE TANNING CO., write:-

"The Grinders LAST MUCH LONGER and GRIND MUCH BETTER than any we have ever had."

J. FLEURY'S SONS,

Founders and Machinists,

AURORA, ONT.

FOR SALE!

Premises recently occupied by THE A. S. WHITING MANUFACTURING Co., CEDAR DALE.

Consisting of Valuable Water Privileges, Buildings, and about Twenty Acres of Land.

APPLY TO.....

H. R. LUKE, Oshawa, Ont.

CLEVELAND WIRE SPRING CO.,

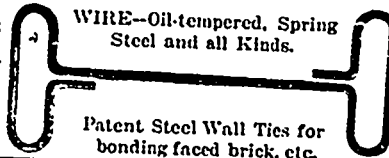
CLEVELAND, OHIO, U.S.

TEMPERED STEEL MACHINE SPRINGS.



Tempered Steel Machine Springs A Specialty.

SPECIAL SPRINGS of all description to order, and for Upholstery, Furniture, Beds, Chairs, etc. Close prices upon application.



WIRE--Oil-tempered, Spring Steel and all Kinds.

Patent Steel Wall Ties for bonding faced brick, etc.

WANTED

Mechanics, Engineers and Firemen to enclose ten cents in stamps for Working Model of Valve for Steam Engines.

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Confederation Life Bldg., Toronto, Canada.



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DISTRICT AGENT

Toronto and District.

Royal-Victoria Life

(HEAD OFFICE MONTREAL)

5 King Street West, - TORONTO.

Leitch & Turnbull

Canada Elevator Works,

Queen and Peter Streets, Hamilton, Ont.

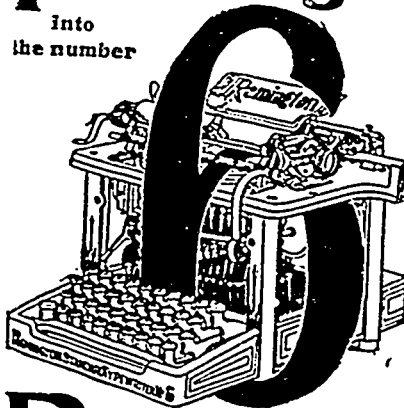
Patent Safety Hydraulic Hand and POWER ELEVATORS

Telephone Connection.

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Remington

Standard Typewriter

are certain sterling qualities of Excellent Construction and Reliable Service for which all Remington models have always been famous. LIKEWISE... Scientific Improvements notably increasing its usefulness and durability.

EDISON'S MIMEOGRAPH, A New Duplicating Device.

CHAS. E. ARCHBALD,

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LITHOGRAPHING and PRINTING A SPECIALTY.

W. B. Davy, of British Columbia will immediately commence work for the lighting of Grand Forks, B.C. The order for the electrical machinery complete, including a 1,500 light alternator, has been given to The Royal Electric Company.

Carleton Place council have a letter from the Perth Waterworks Company, Limited, asking for a similar franchise from that town as they received from the town of Perth.

The Sydney Electric Light & Gas Company of Sydney, C.B., is making extensive alterations and additions to their plant, and have placed an order with The Royal Electric Company for one sixty k.w. and one forty k.w., S.K.C. two phase Alternator, these machines being connected to deliver 150 volts per phase. This is the fourth order that has been placed with The Royal Electric Company for low tension generators of this type within the last few months and it is an evidence of the growing popularity of these machines for this work.

A proposal is again on foot to construct a ship canal across the Florida peninsula from St. Augustine to near Wacanassee Bay. This canal would be 108 miles long and would cut off about six hundred miles of dangerous navigation. This would be advantageous to Germany which exports largely to western states by way of Galveston.

At Kingston, recently, the locomotive works turned out and launched a steel barge, the "Coburg," 180 feet long, 35 feet beam, and to carry 50,000 bushels on a draft of 11 feet.

Messrs. Troop & Son, of St. John, have placed an order in England for the building of a new steel steamer. She will be 300 feet long, 45 feet beam, and will be named the "Canada."

Since his return from England, McLeod Stewart, Ottawa, announces that the building of the Ottawa Valley-Georgian Bay Canal will begin in the spring. The cost will be \$15,000,000, and Sir Benjamin Baker will be consulting engineer.

CAPITAL WANTED

A Woollen Manufacturer,

Who has a good business, but is short of working capital, would like an enterprising man with some money to take an interest.

Box 32 Canadian Manufacturer.

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A neutral substance, harmless to animal fibre or tissue, while it destroys burrs, etc., as efficiently as acid. It leaves the wool in fine condition. Manufactured by the

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Have you got Consumption, Catarrh, Asthma, or Bronchitis? Cannabis Sativa, Dr. Stevens' East India Remedy, will cure you.

It has cured many cases of pulmonary consumption, pronounced hopeless by physicians. Its virtue is attested by leading members of the medical profession; by business men of high standing; by hundreds who owe their lives to its marvellous power to heal the lungs, allay inflammation, renew the vital elements of the blood and create strength.

So confident am I of its virtue that I will send a package, sufficient for 12 days' treatment, absolutely without cost, duty prepaid, to every sufferer who will send me an accurate statement of his or her case. I do not say that one package will effect a complete cure, but believe so much benefit will be derived from it that the treatment will be continued until a complete cure is brought about.

What it has done for others.

PETERBORO, ONT., Canada, Oct. 13, 1877.
"I was foreman in the lumber shanty when I was taken sick, and being anxious about the work, I exposed myself greatly, caught a severe cold, and after recovering took a heavy relapse, which terminated in inflammation of the lungs.

"The doctors all gave me up. One of the most prominent said it was impossible for me to get cured, or even get better, and all that any one could do for me was to give me something to ease me the little while I could live, and had me make my will. The 22d of January, 1873, I took my bed in Peterboro, and on the last of the following August, I was drawn homely on a bed, and three doctors gave me up after I came home. An abscess formed at the bottom of my left lung and discharged outwardly from that time until May, 1876. At the time I got your medicine, it was getting worse every day. Every one thought, and so did I, that death alone would end my misery. I commenced using CANNABIS SATIVA the first of February, 1876, and after using three or four packages of the Remedy, the discharge was checked, and I was able to get out of bed alone for the first time in more than three years and three months.

"For from the 22d of January, 1873, to the 15th of May, 1876, I never was able to get in or out of bed once alone, nor never lay ten minutes off my back, nor never was out of bed one-half day at a time, and spent upwards of \$1,400 without much if any benefit, and I only used a few cents over \$20 for your medicine till I was well.

"It is now exactly eleven months since I left my bed, and I am smart and healthy, and without pain or ache, or any symptoms of the disease. For the past six months I have been able to make a good living for myself. Last fall I cradled and drew in grain."

ROBERT A. HAMILTON.
Sept., 1897.—Mr. Hamilton's health still remains good.

"My son was given up by three doctors. They said he could not live. In three days after commencing to take CANNABIS SATIVA, we could see a change for the better. It cost no hundreds of dollars for doctors before I got this remedy—and they did him no good. He was reduced from 150 pounds to 114 pounds, and in one week after he began to take the Remedy, he gained 14 pounds. After using five packages he is stronger than ever before. His recovery has been acknowledged in this place as a miracle. To God and your remedy we give thanks for it."

JOHN DIER, JR., Westport, Ont.

W. A. NOYES, 820 Powers Block, Rochester, N. Y.

John R. Myers has bought the plant of the Kootenay Brewing, Maltng and Distilling Company at Trail, B.C.

F. Bryant's Wagon factory at Mount Forest has been burned out.

The Canadian Agricultural Utilization of Sewage Water Company, Limited, of Montreal, is applying for incorporation.

The Kennedy Company, Limited, manufacturers of hats and clothing, of Montreal, are seeking incorporation.

Robt. Bowie, N. Cossitt, T. Wilkinson, J. Grant, sr., D. Derbyshire and Jas. Cumming, Brockville, Ont., are among those interested in the new boat to be built this winter for service between Brockville and Union Park, Thousand Islands. Davis & Son, Kingston, Ont., will, it is said, build the boat.

Besides the building of two large steamers for the Richelieu and Ontario Company for lake passenger traffic, at the Bertram shipyards, the iron grain steamer "Rosedale," belonging to Crangle & Hagarty, is to have a new hurricane deck. The iron steamer "Seguin," 200 feet long, will be lengthened about 40 feet.

Wm. Thomson & Co., have closed with Russell & Co., of Port Glasgow, for the construction of another steamer similar to the "Cheronea," "Platen," and "Arbela" (now building). She will be launched in April or May, and her dimensions will be as follows: Length of keel, 325 feet; breadth of beam, 48 feet; depth of hold, 26 feet, 6 inches. She will be called the "Canaxa." This vessel will be the fifth steamer added to the Messrs. Thomson's fleet.

The Ontario Bank have opened a branch at Alliston, Ont. Mr. James Morris is in charge.

The Canadian Rubber Company, of Montreal, and the Gutta Percha and Rubber Manufacturing Company, of Toronto, Limited, have issued a circular announcing a ten per cent. raise of prices, on account of the advance in the cost of crude rubber.

The St. Lawrence Anchor Fence Co., Limited, of Montreal, has been incorporated with a total capital stock of \$20,000. Senator Thibadeau is a member of the company.

The Trust and Loan Company of Canada will erect a two-story brick and stone building on the south side of Portage avenue, next to the Livingstone block, Winnipeg.

The Grantham Manufacturing Company is the name of a new concern which has recently opened business in Winnipeg. Their principal business will be the manufacture of Pino disinfectant powder.

A tow mill has been established at Gretna, Man., to manufacture the flax grown by the Mennonite colonists. Mr. J. G. Kertcher is proprietor of the new concern.

The Star Iron Company, Limited, capital \$60,000, has been incorporated to deal in iron, with headquarters at Beauharnois.

Galt Axe Factory is grappling with a regular inundation of orders.

The Chase Brothers Co., of Ontario, Limited, have obtained a charter to do business as nurserymen at Colborne.

Lawry & Son, Limited, pork packers, have obtained a charter. Their establishment will be in Hamilton.

The Acetylene Lightning Company, of London, have obtained a charter.

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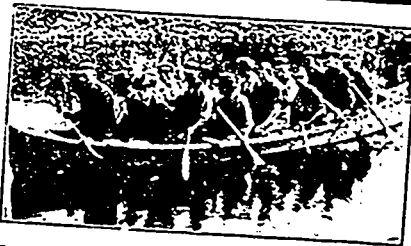
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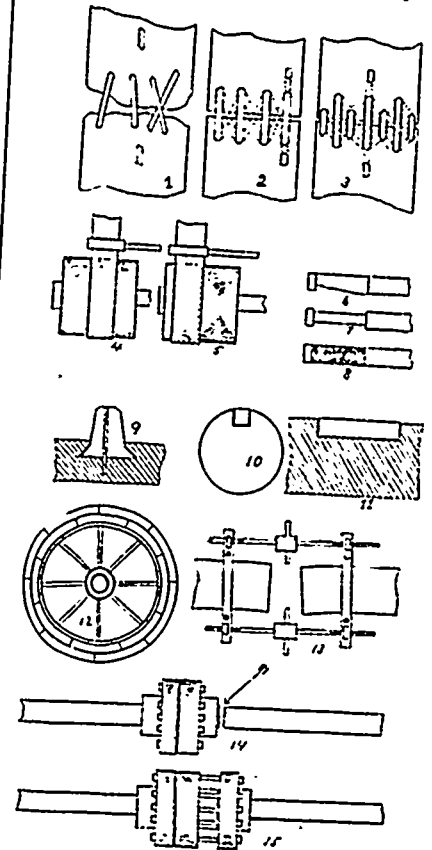
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 21 and 26 Pearl St., Toronto.

HELPING HINTS.

In order to get the most out of any power transmission, the belting and all mechanical parts must be run to best advantage. If belted with a loosely laced belt like that shown in Fig. 1, the system will not run well as the splice, being open, will slip upon the pulleys. The samples given in Figs. 2 and 3 show the plan of procedure which may be followed by the crosses on the back which are represented by the dotted lines. By thus making good, substantial unions, that draw the butts of the belt together evenly and securely, less trouble will be had regarding the driving mechanism. Do not run the belt too tight as it will strain the bearings, cause friction, and consequently there will be loss of power.



If too loose it will be likely to slip on the pulleys and cause loss of time as well as uneven work. It should be slack enough to be readily transferred from the tight to the loose pulley without excessive strain on the shipper. A little belt dressing will aid materially in making the belt work well and without slipping, even if it be a trifle loose. I have often found a machine doing poor work, owing to the belt shipper being set as in Fig. 4, in which the belt runs only partly on the tight pulley. Set it to run clear over on the pulley as in Fig. 5. When a shaft is worn down as shown in Fig. 6, take it to the shop and turn it down like Fig. 7, then wind with steel wire as represented in Fig. 8, and a fairly good job will result.

When a cog breaks off of a gear, shape a r. w cog and dovetail it in, in the manner shown in Fig. 9, and insert a steel pin to prevent the cog from working sidewise. When a bearing throws oil in a place where it is desired that no drippings shall fall, cut a key-way in the center of the bearing, about half the width of the box, and put in

a felt pad as shown in Figs. 10 and 11; the pad absorbs the oily matter.

A lag pulley with wood, as shown in Fig. 12, by bolting on sections of pieces cut to correct size to form a smooth surfacing. On the surface put a cement composed of two pounds of black pitch, two pounds glue, one pound linseed oil. I have often traveled far to some mill or shop, in response to a call from the proprietor, who has written to the makers of his new machines to the effect that the same do not work right, and upon arrival at the factory have discovered the cause, not in the machines themselves, but through some defect of setting up or starting. The pulleys, for instance, are sometimes the whole source of the trouble through being too small. The builders of the machines cannot tell just what size pulley to furnish, always, consequently the selection of the driving pulley often falls to someone at the mill. High speed is the aim nowadays, and yet pulleys of but six or seven inches, too small in diameter, are frequently used to drive machines. This has many bad effects on both machine and belt. If the pulleys were larger in diameter, the results would

be much better. The writer has often proved this to manufacturers by lagging up the driving pulleys on the shaft in the manner shown.

A good belt tightener for large belts is shown in Fig. 13, consisting of the two double end bolts at either side, arranged in the ordinary way, but threaded right and left, so that when turning the center pivots, both ends of the belt are drawn toward each other simultaneously.

A shaft recently broke off near a coupling as shown in sample 14. We desired to run the mill until Saturday night, and as the shaft would not bear shortening, we put another coupling on the broken end, keyed it firmly, and inserted bolts clear through from the former couplings, as shown in Fig. 15, and the mill was kept running.—Power and Transmission.

FUSTIC SUBSTITUTES.

A pattern card has just been prepared—Fustic Substitutes on Wool, No. 636, which contains the Alizarine, Diamond and Chrome Yellows on wool. Alizarine Yel-

low 3.G., Diamond Yellow G., Diamond Flavine G., are much the same in shade. Chrome Yellow D. is much duller. Anthracene Yellow is much greener and Alizarine Yellow R., extra, is the reddest of all the Yellows.

Mordant:—3 per cent. Bichromate of Potash, 2½ per cent. Tartar.

These colors dye on the above Chrome mordant, boiling one and one-half hours with the addition of 2 to 4 per cent. of Acetic Acid.

Any of these Alizarine Yellows are intended to substitute or replace Fustic, and while being much the same in shade, have the advantage over Fustic of being absolutely fast colors. For shade card, circular and samples, apply to Dominion Dyewood and Chemical Co., Toronto, sole agents in Canada for the Farbenfabriken vorm Friedr Bayer & Co., Elberfeld, Germany.

SPANISH COMMERCE.

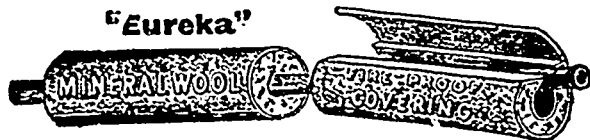
The Madrid correspondent of the London Times writes to his paper as follows:—"The Imparcial publishes a resume of Spanish trade for last year, from which it appears

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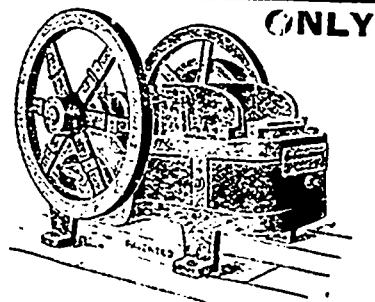
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Domestic Electrical Work. Concise and practical explanations for plumbers, tinners and hardware dealers, on how to wire buildings for bells, alarms, annunciators, and for gas lighting from batteries. Illustrated with 22 diagrams. By William A. Wittbecker. In paper, 25c.; cloth, 50c.

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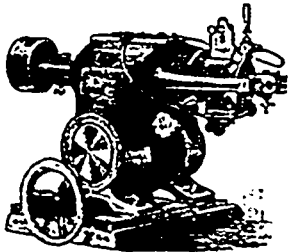
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that the imports amounted to 793,341,121 pesetas, as compared with 748,986,377 pesetas in 1896 and 703,792,244 pesetas in 1895. The exports were of the value of 924,936,047 pesetas as against 892,323,618 pesetas in 1896 and 692,635,935 pesetas in 1895. The exports of last year exceed, therefore, the imports by 141,594,926 pesetas. With regard to imports, an increase is observable in the following articles. Glass and china ware, drugs and chemical preparations, cottons, vegetable fibers, papers, wood, live stock, machinery and carriages. Of imports of a more special nature, railway material, gold and silver have increased, while tobacco for the Compana Arrendataria has increased to the extent of nearly 12,000,000 pesetas. Exported articles show an increase, except wool, live stock, machinery and foodstuffs. The value of exported Spanish wine of a common class has decreased by about 20,000,000 pesetas and of spirits and olive oil by 12,000,000 pesetas. Oranges, on the other hand, exceed the preceding year's export by 11,000,000 pesetas. The customs dues collected show 8,205,824 pesetas less than in 1896, attributable in large measure to the decrease in imported cereals."

Boilermakers' and Iron and Steel Shipbuilders' Society, the executive council say: "The announcement that the strike or lock-out of the allied trades is at an end would be tidings of unmixed joy if the end were peace. Unfortunately, that is scarcely the position of affairs. But we hope that out of evil good may come, and all trade unionists learn that there are always two sides to every question and these two sides must be calmly weighed over at a conference table. What now remains is to reckon up the little bills. It is computed that the strike has cost the men in loss of wages and their common fund a sum approaching £3,000,000. What this has meant in family and personal misery, in debts incurred, in the stripping of homes of their furniture and comforts, in the impoverishment of small tradesmen, and not least, in the demoralizing influence of seven months' idleness, is beyond the powers of arithmetic to compute. And that is only one side of the account. The losses of employers, not only in money, but in markets and general setback to one of the chief departments of the nation's trade are the other. There is a widespread conviction that the men have been badly advised in this encounter. We fully recognize the courage and persistence with which they have carried on the conflict. This is almost, or might have been, a paraphrase of what we wrote a week or two ago on the same phases of the subject. What follows introduces debatable points: "No sane man can be opposed to trade unions. The right of workmen to combine to safeguard their interests and for the general amelioration of their condition is self-evident. There are, no doubt, some employers who are intolerant of labor having any articulate voice at all, and resent the

existence of labor unions for any purpose except provision of sick and old-age pay and funeral allowances. They fail to see that labor and capital are partners in industry, and that labor has an equal right with capital to defend itself, which it cannot do unless it combines. But we can best advance the interest of both if both are actuated by a spirit of fairness and honorable dealing. The masters must not be masterful or the men too exacting. We are pleased to say that since our last issue the number of our unemployed has considerably decreased, and the settlement of the engineers' dispute is sure to lead to a further diminution in the number of members on our funds. It will take some weeks before the whole of our members will be able to find employment, but there is any amount of work on hand, and we trust that before another report is issued employment will have been found for the majority of those who are now idle." The first sentence of this passage requires qualification. No sane man will be opposed to trade unions as long as they withhold from attacking the just rights and damaging the just interests of other people. The writer of the above lines cannot say they have done this. Again, it is the trade-unionists who fail to see that labor and capital are partners in industry. They have over and over again denied this, both by voice and act. Whenever capital is making profits—that is wages for itself—labor demands to share them; but whenever losses are being made: well! that is "an apple from another tree." They will have no share in them. "They can best advance," says the writer, "the interests of both if both are actuated by a spirit of fairness and honorable dealing." Just so! But what a

THE LATE ENGINEERING DISPUTE.

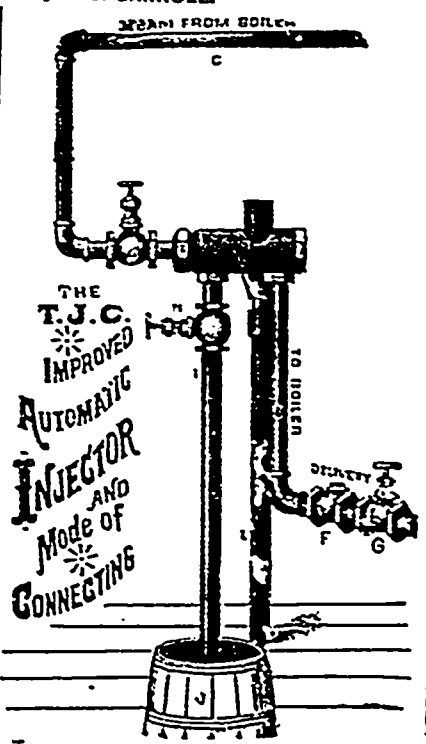
The facts of this sad mistake are gradually finding their way home to the men, or at least to the most intelligent portions of them. There was not perfect unanimity among them at the first, one important society withdrawing at the outset, when the engineers determined upon the strike. In their monthly report to the members of the

THE IMPROVED AUTOMATIC INJECTOR,

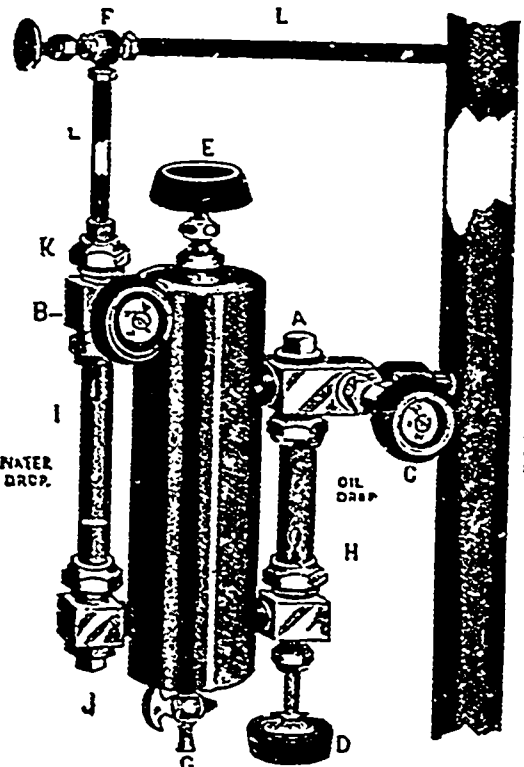
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40	30.00	700	4 1/2"	70
45	34.00	800	5"	80
50	38.00	900	5 1/2"	90
55	42.00	1000	6"	100
60	46.00	1100	6 1/2"	110
65	50.00	1200	7"	120
70	54.00	1300	7 1/2"	130
75	58.00	1400	8"	140
80	62.00	1500	8 1/2"	150
85	66.00	1600	9"	160
90	70.00	1700	9 1/2"	170
95	74.00	1800	10"	180
100	78.00	1900	10 1/2"	190
105	82.00	2000	11"	200
110	86.00	2100	11 1/2"	210
115	90.00	2200	12"	220
120	94.00	2300	12 1/2"	230
125	98.00	2400	13"	240
130	102.00	2500	13 1/2"	250
135	106.00	2600	14"	260
140	110.00	2700	14 1/2"	270
145	114.00	2800	15"	280
150	118.00	2900	15 1/2"	290
155	122.00	3000	16"	300



REDUCED PRICES OF Michigan, Eagle, and Queen Lubricators.



PRICE LIST.

Size	Price
1 1/2"	\$1.50
2"	2.00
2 1/2"	2.50
3"	3.00
3 1/2"	3.50
4"	4.00
4 1/2"	4.50
5"	5.00
5 1/2"	5.50
6"	6.00
6 1/2"	6.50
7"	7.00
7 1/2"	7.50
8"	8.00
8 1/2"	8.50
9"	9.00
9 1/2"	9.50
10"	10.00
10 1/2"	10.50
11"	11.00
11 1/2"	11.50
12"	12.00
12 1/2"	12.50
13"	13.00
13 1/2"	13.50
14"	14.00
14 1/2"	14.50
15"	15.00
15 1/2"	15.50
16"	16.00
16 1/2"	16.50
17"	17.00
17 1/2"	17.50
18"	18.00
18 1/2"	18.50
19"	19.00
19 1/2"	19.50
20"	20.00

For STATIONERY, MARINE, PORTABLE and LOCOMOTIVE BOILERS Simple, Reliable, and Durable. Range 20 to 150. Will lift 20 feet. A written guarantee with each Injector for two years.

HAMILTON BRASS MFG. CO., Limited, 259 to 265 James Street North, HAMILTON, ONT.

pity it is that the trade-unionists have shown so little of this spirit, either recently or for a long time past. Let us hope that now they have acknowledged the truth they will act upon it. If so there are happier times in store for both themselves and their employers. We trust that other unions of the country will come to recognize and acknowledge their position in a similar way. — Textile Mercury.

TEMPERING STEEL UNDER PRESSURE.

Mr. Haedicke, in Stahl and Eisen, describes a direct process of tempering steel while in the press. The tempering of steel can be done in two ways, either by hardening it first on plunging into cold water and then drawing the temper, and the other by plunging the red-hot steel into various liquids directly. The temperature of such fluids and their capacities of drawing off heat regulate the degree of temper obtained. In the manufacture of saws the steel is first hardened in oil or fat, and then, while still warm, placed in a press between hot dies and the temper thus drawn while under pressure. A special style of a press is shown and described as specially adapted for this work, the dies being hollow and arranged to allow the circulation of steam or hot oil. Arrangements are made to regulate the heat with the aid of specially inserted thermometers. The plates to be hardened and tempered are placed between the heated dies as fast as they come from the ovens, and are allowed to cool there to the point desired while under pressure. The material comes out flat and seldom requires extra straightening. This process is especially adapted to the requirements of cold saw making. The temper obtained is quite uniform, and if it should be desired to have hard edges and a softer interior, arrangements are made to limit the cooling effect to the edges by suitably designed dies, the central portion of their faces consisting of some poorly conducting material. The process is also adapted for the tempering of hand saws.

A little girl near Annapolis, daughter of a prominent man in the ranks of the Liberal party, had been taught to pray for everybody, and recently startled her mother one evening by her devout prayer, as follows: "Now, oh God, take care of yourself, for if we lose you we shall only have Mr. Laurier left to take care of us, and he is not doing as well as papa expected he would do." — Summerville, P.E.I. Journal.

KLONDIKE . . .

PERSONS GOING TO OR RESIDING IN

THE YUKON DISTRICT may secure policies from

The Manufacturers' Life Insurance Co.,

Free from all restrictions and subject to one condition only WITHOUT EXTRA PREMIUMS.

Apply **GEORGE A. STERLING**, Secretary, Head Office, Toronto, or to your local agent. — **GEORGE GOODERHAM**, President. **J. F. JUNKIN**, General Manager.

Railway Spikes.

Pressed Spikes

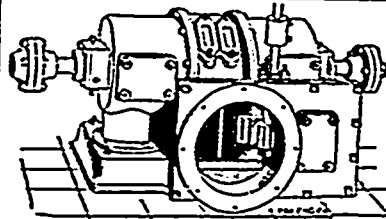
Washers

Rhode Island Horse Shoes.

Cut Nails.

Bar Iron and Steel

ABBOTT & CO., - MONTREAL



Horizontal Type.

Water Wheel Governor, Machine Dressed Gearing, Pulleys, Shafting and Bearings. Catalogue and Gear List mailed on application.

"LITTLE GIANT" TURBINE

...FOR ALL PURPOSES...

HORIZONTAL AND VERTICAL. BUILT IN 44 SIZES.

We guarantee a higher percentage of power from water used than any other wheel on the market.

Correspondence Solicited.

J. C. WILSON & CO., - - GLENORA, ONT.



THE B. GREENING WIRE CO. LTD.
PERFORATED METALS.

HAMILTON, - CANADA

CATALOGUE AND PRICES ON APPLICATION.....

THE DIFFERENCE

The difference in taking down a section of line shaft, removing couplings, etc., and putting on solid iron pulley and then putting all back in place, and in putting on a "REEVES" Patent Wood Split Pulley, leaving the shaft unmolested, will in nearly every case pay for the "REEVES" entire.

REEVES PULLEY CO., Pearl St., - Toronto, Ont.

GET UR CATALOGUE.

AS TO ADVERTISING.

We believe in telling the truth. In these days of "yellow journalism" this may be an amazing statement. Because we believe in telling the truth we see no harm in conceding that the advertising business has not increased in a manner commensurate with the uplift of business generally. We are not alone in observing this state of affairs. With one exception, which has been given an especial impetus by their stockholders among the silver people, our contemporaries are in the same boat with us. That is, the usual "fall advertising" is slow in coming.

Why should this be so? At first thought it would seem unaccountable. The real reason, of course, is lack of money. With the natural increase of business there is a necessity for more money to buy added stock and pay the enlarged number of hands. Many manufacturers are at their wit's ends to make both ends meet until such time as they can collect for their goods. Therefore, when they are urged to increase their immediate expenses for something which they feel that they can get along without, they are prone to give the solicitor "the marble heart."

A stock argument is, "why we have got so much business that we don't need to advertise." And, strange to say, those who offer this argument do it honestly, and do not see the absurdity of it. If business is naturally coming up, so that your business is increasing prodigiously, that would seem to be just the time to exploit the facts wherein your goods are a little better or a little cheaper than your competitor's. You want to do business next month as well as this; you want to increase your output next year; and all the time there are others who have the same ambitions. In such a state of affairs, the man who has foresight enough to emblazon the name of his firm and the merits of his goods constantly before the eyes of all his possible customers will stand in a better position to get trade a little ways in the future than his more slow-going penny-wise and pound-foolish competitor. If you are doing a good business that is all the more reason why you should advertise to keep it

good. You have some encouragement in such a case to spend money.

The history of all large advertising ventures show that the effect of advertising is cumulative, that is, its results increase in a regularly symmetrical ratio the longer the advertising continues.

Then, again, there is the man who thinks that "everybody knows us." Well, perhaps they do, but they also know others in your line, and if those others keep themselves constantly in the customer's eyes and minds, and you do not, their chances are superior to yours in the long run. Everybody knows John Wanamaker and his store, and the place is full of customers all the time, but he never thinks of stopping his advertising. He knows it pays. Good advertising, well written, well displayed and well circulated among possible customers will pay anybody no matter if to-day he does see three weeks work ahead. — Manufacturing Jeweler.

in some instances exceeds the ability of the home market to absorb, it seems strange that American manufacturers have not hustled to secure trade abroad. We see many of our cotton mills closed and workers idle, yet little Chili offers an annual market for \$6,750,000 worth of cotton goods, as shown in Our Manufacturers' Department to-day, of which we only supply goods worth \$218,700. We sell to England the cotton that she needs, to secure seventy-two per cent. of Chili's trade, while our manufacturers have put up with a miserable three per cent. as their share. In one year, 1896, we more than doubled our exports of cotton goods to Chili, which proves that we can get the business if we go after it. What is true of Chili is true of other countries that offer better facilities for communication and transportation. Our manufacturers talk of the surplus of cotton prints, yet Chili alone buys these goods to the extent of \$1,400,000 annually, of which we supply less than \$20,000 worth. Facts like these need no translator. — Farm Machinery.

A CHANCE FOR CANADA IN OTHER LINES.

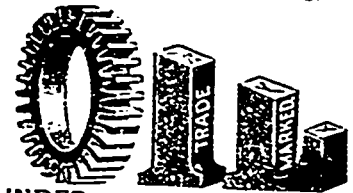
Manufacturers frequently complain, and sometimes with cause, that business is overdone in the United States; that they are making more goods than can be consumed, and that there is no outlet for their surplus products, says Commercial America. While it may be true that our productive capacity

Mr. John Mather, of Rat Portage, Ont., is arranging for the construction of a big pulp mill at Keewatin, to be run by water power.

Several tons of Crow's Nest Pass coal have been shipped and the veins are being rapidly uncovered, ready for mining as soon as the railway is complete.

"PEERLESS," LUBRICATING

- "R. R. R.," DYNAMO
- "PEERLESS" ENGINE
- "DARK VALVE"
- "DARK PEERLESS," CYLINDER
- "ATLANTIC" RED, "BAYONNE" ENGINE
- "RENOWN" ENGINE AND "CAPITOL" CYLINDER



THE VERY BEST THAT IS MADE.

22 If our travelers fail to call in time, write for samples and prices. We can fit you out.

THE QUEEN CITY OIL CO., LIMITED,
SAMUEL ROGERS, President. TORONTO.

D. K. McLAREN

VICTORIA SQUARE.

Manufacturer and Mill Furnisher,

Montreal—Ottawa—Galt.

OAK TANNED LEATHER BELTING.

Lancashire Hair Belting.
English Card Clothing.

WESTERN TRADE:—

Please note we always do business on the SQUARE, but for your convenience we have opened a branch at Galt, Ont.

Dominion Oil Cloth Co.,

Manufacturers of....

OIL-CLOTHS OF EVERY DESCRIPTION

Floor Oil-Cloth, Table Oil-Cloth, Carriage Oil-Cloth,
Enamelled Oil-Cloth, Stair Oil-Cloth, etc, etc.

Office and Works

Cor. St. Catharine and Parthenais Sts., MONTREAL, Que.

Woolen Mill for Sale. Two Sets of Machinery.

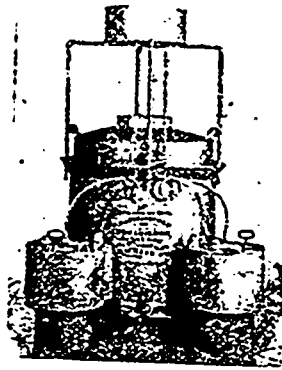
IN GOOD RUNNING ORDER.

ELECTRIC LIGHT PLANT IN CONNECTION.

ALL WILL BE SOLD AT A BARGAIN.

Address: **VASSAR WOOLEN COMPANY,**
VASSAR, MICH., U.S.A.

Hamilton Acetylene Gas Machine.
SIMPLE, ECONOMICAL, DURABLE AND SAFE.



Adapted for PRIVATE HOUSES, OFFICES, STORES, CHURCHES, or any building where a clear, bright and steady light is required.
300 in use in Dominion of Canada.
Address Communications to
HAMILTON ACETYLENE GAS MACHINE CO., Limited.
71 York Street, HAMILTON.

ATTENTION

CENTRAL STATION MANAGERS!

A GOLDEN OPPORTUNITY

Are you desirous of purchasing
*Are Lighting Machinery,
Leather Belting,
Water Wheels, or Shafting?*

If so, you cannot afford to miss this opportunity. Owing to extensions necessitated at our generating station we are obliged to discard the above-mentioned material. Communicate with us at once for all information and particulars.

THE...
MONTMORENCY ELECTRIC POWER CO.,
QUEBEC.

**LIGHT YOUR
FACTORY WITH**

LUXFER PRISMS

The latest device for

LIGHTING

dark rooms and
offices

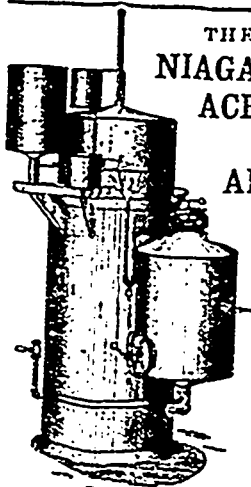
By Daylight

For catalogue
and estimates
write to

**Luxfer Prism
Co'y, Limited.**

58 Yonge Street, - TORONTO.

THE
**NIAGARA FALLS
ACETYLENE
GAS
APPARATUS**



Patented in
Canada, United
States and
Great Britain.

This is the
only machine
perfectly auto-
matic in its ac-
tion, requiring
little or no atten-
tion. Machines
made in 70 sizes
costing \$15 and
upwards.

Acetylene Gas the Coming Light.

CHEAPER THAN ELECTRIC LIGHT
COAL GAS OR COAL OIL

For Private Dwellings, Business Houses
Churches, Public Halls and Offices.

For particulars write to the
NIAGARA FALLS ACETYLENE GAS MACHINE CO.
NIAGARA FALLS, ONT. LIMITED.

COMMERCIAL EDUCATION.

The Bradford Chamber of Commerce has sent us a copy of a draft memorial which they had prepared in response to an invitation given at the last meeting of the Association of Chambers of Commerce, held at Middlesborough. The memorial, first of all, points out that, in comparison with the Continent, the facilities for obtaining a commercial education in this country are very slight, and that one of the reasons for the preponderance of foreign traders is the system of education which is pursued on the Continent. They go on to say that, in order to keep merchants of this country in line with other competitors, it is necessary that some steps should be taken to facilitate systematic commercial education. They also point to the fact that the development of art and science under the encouragement given by the Government now shows great improvement, to the manifest benefit of the trades of the country; and they pertinently point out that there are two classes of people-- those who produce and those who buy and sell. For the first a special training is obtainable, and is encouraged by means of Government grants, while for the second there is no such encouragement given. The memorial then goes on to detail what is meant by a commercial education, and deals briefly with the method by which this can be obtained. The prayer of the memorial concludes by suggesting that the Government should place commercial education on the same grant-earning footing as science and art subjects; that a central authority should have the power to distribute the grants and also formulate and supervise systematic courses of education. In certain appendices which accompany the memorial there are a number of valuable suggestions as to the nature of the educational course which it is suggested should be followed.

Briefly the suggestions are that commercial education should be provided by means of evening continuation schools, higher grade schools, secondary schools with special provision for teaching commercial subjects, and commercial departments attached to university colleges. In connection with the proposed commercial departments of secondary schools a list of subjects is given which ought to be learned, and we notice that amongst these it is suggested that three modern languages should be learned.—Textile Recorder.

GROWTH OF ELECTRIC POWER.

The uses and power of electricity multiply and expand. When we see how widely electricity is occupying various fields it is hard to realize how young a power it is. In street cars and in electric lines, which have cut deeply into the passenger business of railways in more thickly settled portions of the country, we already have a rival to the steam roads that threaten them in many ways, and yet it is only ten years ago since the first trolley car was run, in Richmond, Virginia. The underground trolley and the third rail systems are now coming to the front and they are likely to still further expand electric traction as a rival of the steam railway. It does not require much foresight to look forward to the time when, connecting our larger cities, will be elevated lines, run by electric power and carrying the passenger business of our great railway systems, leaving to the surface steam railroads the carrying of the freight.

Our railroad interests are so large that, as

Do You Want A Canoe or Rowboat?

WE HAVE THEM

In all Sizes, and at PRICES which should INDUCE YOU TO BUY.

THE CANADIAN CANOE COMPANY, LIMITED,

BOX 107, - - PETERBORO, ONT.

SEND STAMP FOR CATALOGUE AND MENTION THIS PAPER.

they become convinced of the power of electricity as a rival of steam, for transporting both freight and passengers, they will be obliged, in self defence, to turn their great rights of way, especially between great cities, into double decked affairs, on the upper structure of which passengers can be carried at the rate of a hundred or two hundred miles per hour, leaving to the surface roads a doubled capacity for carrying merchandise.

As electric power is invading the field of transportation, so is it cutting into the industrial field. Water power can be transmitted long distances and, as business expands, the power of coal can be developed at the pit mouth and carried on a wire and distributed wherever it may be needed, in quantity large or small, instead of carrying the coal over long distances. Machinery can be run for a thousand people in a great factory or for a single worker in a work room in his home. And, perhaps more marked than in other fields, electric power can be used in smelting metallic ores, mined, perhaps a long distance from where the power that reduces them is generated. Transmitted power, instead of assembled interdependent materials, opens a very wide field to the imagination, and yet it is a field we have approached near enough to look over the fence. It is wide open to everybody, and in our own country, which has led the world in utilizing electric power, it should, and doubtless will be, first explored and marked.—Daily Financial News.

ALIZARINE BLACK-BAYER.

This product discovered and brought out some time ago by the Farbenfabriken of Elberfeld, is on account of its recent reduction in price, steadily replacing Logwood. Alizarine Black-Bayer differs only from the various Alizarines in its method of application, viz :

Dye with 4 to 5 per cent. of color boiling, and sufficient Acetic Acid to completely exhaust the bath, added at intervals, then, after-chrome in the same bath by adding 1 to 2 per cent. Bichrome (well dissolved), and boiling for half an hour longer.

The chief points of this wool color are,—the fine, full, rich blacks produced—but more especially its fastness to all agents. Exposed to sunlight for several months it does not alter its shade and it will stand the severest milling with white.

Comparing the strength and value of this fast black with other products, it is found to be a very cheap color. In order that dyers might satisfy themselves as to the absolute fastness of this color, piece goods samples attached to cards have been prepared, which may be dated and hung up conveniently in an office or dye-house window.

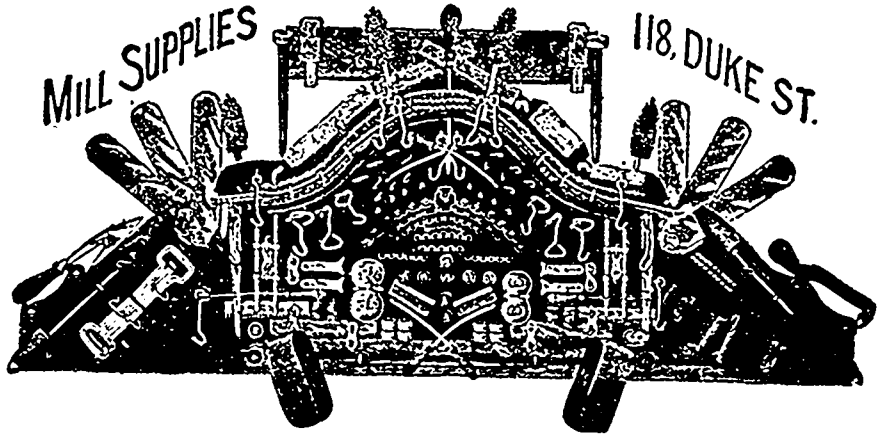
Samples, latest shade cards, information, circulars, etc., may be had from the Dominion Dyewood & Chemical Co., Toronto, sole agents in Canada for the Farbenfabriken, vorm Friedr Bayer & Co., Elberfeld, Germany.

The Canadian Transfer Company, Limited, has been organized at Montreal, with a capital of \$100,000. The charter members are :—Allan MacNab, barrister-at-law, of the city of Toronto; Henry L. Rutherford, manufacturer; Donald Macmaster, advocate and Queen's Counsel; Honorable Alexander W. Morris, stock broker; Edmond Boileau Doolot, gentleman, of the city of Montreal.

GEO. REID & CO. Successors to The PAUL FRIND Woollen Machinery Co., Limited, TORONTO.

'PHONE 956

118, DUKE ST.



SPECIALTIES: Hamilton Cotton Co's "Beam" Warps.

Samuel Law & Sons H. and T. Steel Card Clothing.

All Kinds of Textile Machinery. Machine Shops in Connection

HAMILTON COTTON CO.
HAMILTON, ONTARIO.

**YARN MANUFACTURERS,
DYERS, AND BLEACHERS,**

Warp Yarns of all descriptions, in Skein, Chain or on Beams.

Hosiery Yarns in Single or Double; in Cop, Skein or Cone.

Yarns of all kinds for Manufacturers' use.

Twines, Lampwicks, Webbing, Etc.

Dyeing of all colors, including **GENUINE FAST BLACK.**

ALEX. GARTSHORE, President. J. G. ALLAN, Sec.-Treas. JAS. THOMSON, Vice-Pres and Gen. Mngt.

THE GARTSHORE-THOMSON PIPE & FOUNDRY CO.
Limited



3 in. to 60 in. diameter.

For Water, Gas, Culverts and Sewers

Special Castings and all kinds of **WATER WORKS SUPPLIES**

FLEXIBLE AND FLANGE PIPE.

HAMILTON, ONT.



**BENT WOOD SPLIT PULLEYS,
RIM... (REID'S PATENT).**

The Strongest, Lightest and Best Belt Surface in the World

No Glue, no Nails in Rim like Segment Rim Pulleys, to be affected by Steam, Dampness or Moist Temperature.

EVERY PULLEY GUARANTEED.

The Reid Bros. Manufacturing Co., of Toronto,
257 King St. West, Toronto.

JOHN J. KELLER & CO.

104 and 106 MURRAY ST.
NEW YORK

220 Church St., Philadelphia.

135 Pearl Street, Boston.

**Aniline Colors,
Dyewood Extracts,
Sumac and
Nutmeg Extracts.**

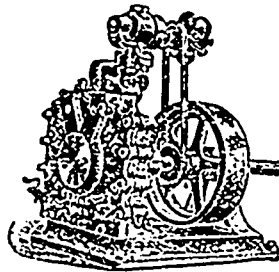
FAST COLORS for Wool Dyeing,
One Dip Cotton Colors, Novelties
and Specialties for Calico
Printing.

MANUFACTURED BY

JOHN R. GEIGY & CO.
BASLE, SWITZERLAND

The Dake Engine

For Running Dynamos in



Small Isolated Plants.

CONTRACTORS' HOISTS

STEADY AND EVEN MOTION,

ALSO FOR

Attachment Direct to Fans, Blowers, Centrifugal
Pumps, Stokers, Steering Gear, Etc.

Correspondence Solicited.

THE JENCKES MACHINE COMPANY

SHERBROOKE, QUE.

Succeeding

THE PHELPS MACHINE CO., Eastman, Que.

LITERARY NOTES.

Massey-Harris Illustrated for January and February contains many hints that will come in handy for the farmer.

The recent issue of the Standard Designer is an up-to-date periodical. It contains much information of the kind dear to the heart of the gentler sex and is a valuable help to the conduct of a household.

March Munsey's has its quota of beautiful pictures. Among the articles are "The Ghost of the Marchioness," Ian Maclaren's description of his favorite novelist's best book, "The Tall Buildings of New York;" "The Khedive of Egypt;" "Storiettes;" two serial stories and the customary literary and artistic chit chat.

Scribner's for March contains many good features. "The Workers," Wyckoff; "A Pompeian Gentleman's Home Life;" "The Moment of Clear Vision," Octave Thanet; "The Madonna that is Childless," T. R. Sullivan; "The Romance of a Cash-book," and a large number of other interesting and instructive articles, poems, etc.

The Methodist Magazine for March gives its readers a large allowance of good literature. Among its contents are "The Heart of the Empire;" "The Hospital for Sick Children;" "The Martyr Bishop of Africa;" "Cyrus Field and the Atlantic Cable;" "The School of the Twentieth Century;" "Father Damien;" "The Wandering Jew and his Congerers;" "Tennyson's Religious Life;" a number of articles on religious matters and the usual column of comment.

March Cosmopolitan contains, "The Hand that is Coveted," by William Eleroy Curtis; "The Work of Mrs. Kenyon Cox," by Theodore Dreiser; "The Dreyfus Mystery," by Theron C. Crawford; "Gloria Mundi," by Harold Frederic; "To a Pretty Girl," poem by I. Langeville; "The Man with one Talent," by Richard Harding Davis; "Manliness," by John J. A. Becket; "Interior of a Pompeian Home," by H. G. Huntington; "Emperor William as a Huntsman," by Edward Break; "The Choice of a Profession;" "Modern Education;" "An International Language," and many other interesting articles.

Well chosen matter and many beautiful illustrations make the March number of Outing, a welcome guest. The contents are: "The Fox Terrier," by Ed. W. Sandys; "Hunting the Fur Seal," by W. G. Emery; "Pig Sticking in Northern India;" "The Southern Yacht Club of New Orleans," by Lorillard D. Sampsell; "One Bear Story," by John K. Johnson; "A Naturalist in Nicaragua," by J. Crawford; "A Week with the Singhalese," by E. M. Allaire; "Doris," by Sara B. Kennedy; "A Glimpse of a Florida River;" "The Fitting Out of a Yacht," by A. J. Kenedy; "Alone and Awheel from Chicago to Frisco," by Margaret V. Le Lang; "Barcelona," by Charles Edwards; "Coasting," by A. H. Godfrey, and the usual editorials and records of sporting events.

Mr. F. P. Shumway, who is widely known in the New England States as a confidential adviser to manufacturers, has removed from the Ballard Buildings, 11 to 25 Bromfield St., Boston, Mass., to the Jewellers Building, cor. Bromfield and Washington Sts., in the same city. We bespeak favor for Mr. Shumway.

Hamilton Blast Furnace Co.

HAMILTON, - - ONTARIO

(Limited)

Manufacturers of

**HIGH GRADE
PIG IRON**

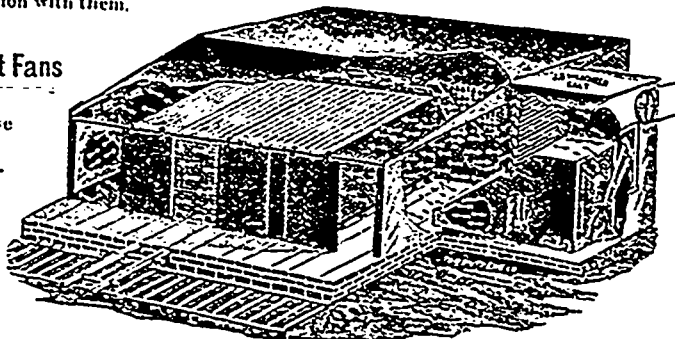
The McEACHREN Lumber Dry Kilns

They are quick-drying.
Economical with Steam
and it requires less power to
drive our fan in connection with them.

ARE THE BEST

Steel-plate Exhaust Fans

For removal of refuse
from Wood-working
and other machinery.



SEND
FOR
CATALOGUE.

SECOND-HAND FANS AND HEATERS

For Lumber Dry Kilns for sale at reasonable figures.

McEACHREN HEATING AND VENTILATING CO.,
GALT, ONTARIO.

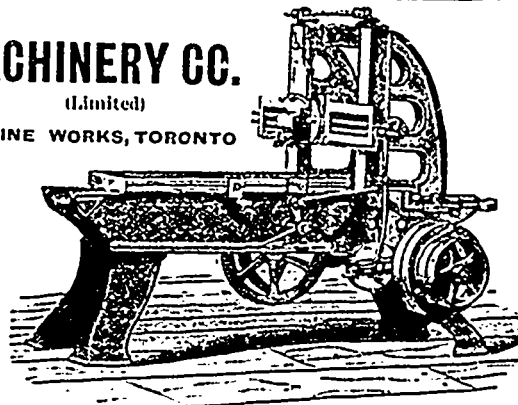
THE ...

A. R. WILLIAMS MACHINERY CO.

(Limited)

Head Office, - - SOHO MACHINE WORKS, TORONTO

Manufacturers of and Dealers in
High-Class Iron Tools,
Wood-working Machinery,
Engines, Boilers,
Motors, Water Wheels,
General Machinery
and Supplies.



The Pulsometer STEAM PUMP

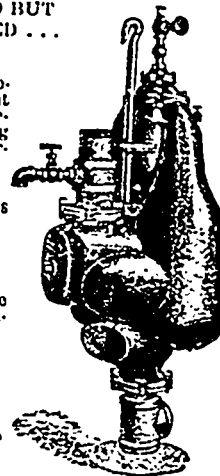
OFTEN IMITATED BUT
NEVER EQUALLED ...

The handiest, simplest and most efficient steam pump for general Mining, Quarrying and Contractors' purposes.

Muddy or Gritty Liquids
Handled without wear.

Descriptive Catalogue
with prices, furnished on application.

PULSOMETER
Steam Pump Co.
New York, U.S.A.



A. R. Williams Machinery Co.

Toronto and Montreal,
Selling Agent for Canada.

THE TORONTO PAPER MNFG. CO.
CORNWALL, ONT.

Manufacturers of....

Engine Sized Superfine Papers
White and Tinted Book Papers
Blue and Cream Laid and Wave Foolscaps, Account, Envelope and Lithographic Papers, etc.

Iron Tool Works

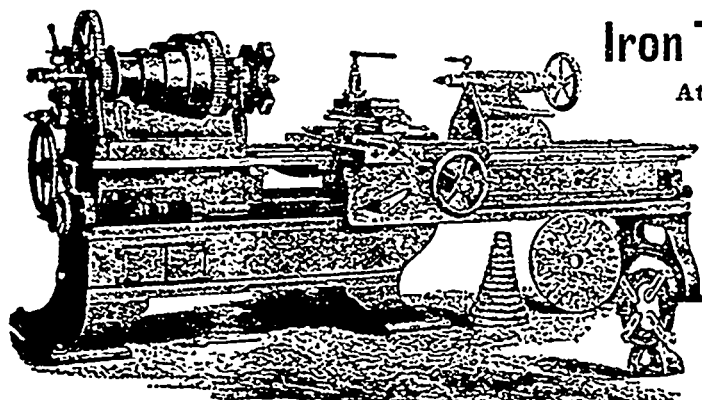
At London.

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193 Colborne St.,
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345 and 347
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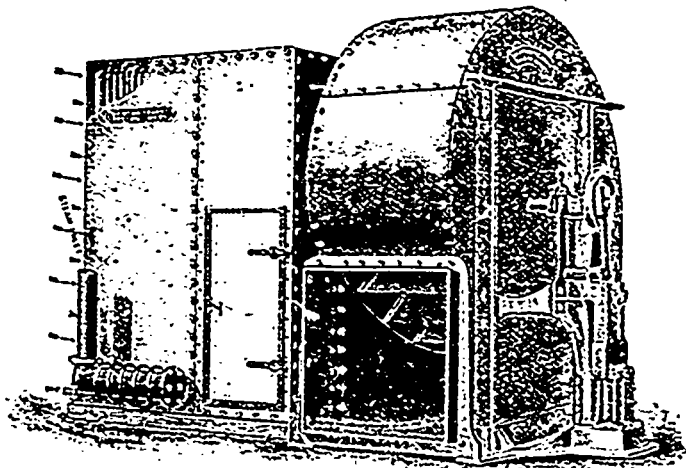
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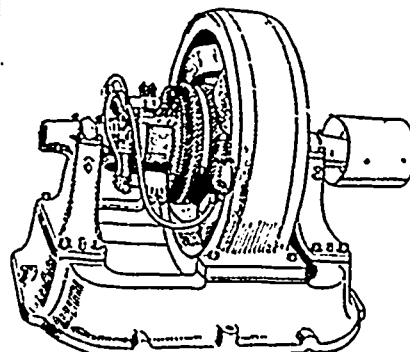
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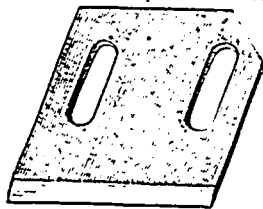
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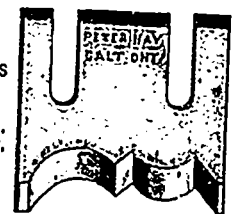
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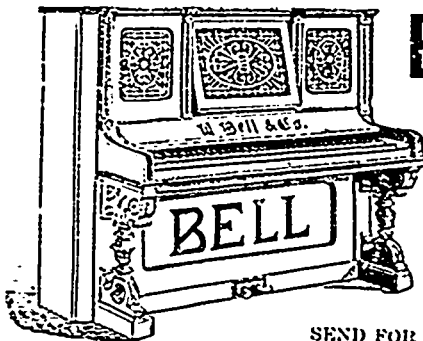
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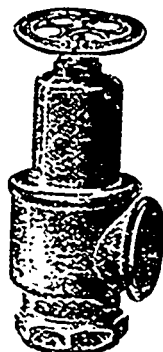
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