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# CANADIAN MANUFACTURER

AND INDUSTRIAL WORLD

DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

Vol. 25.

TORONTO, DECEMBER 1, 1893.

No. 11.

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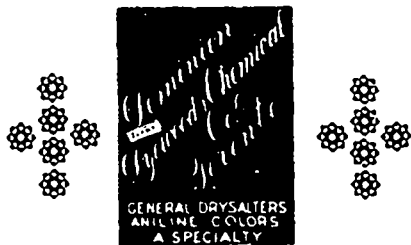
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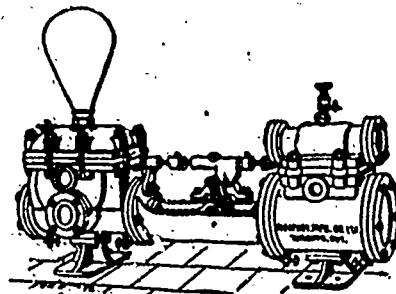
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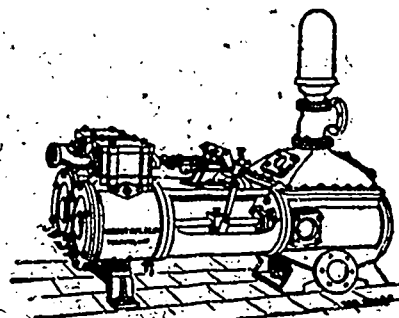
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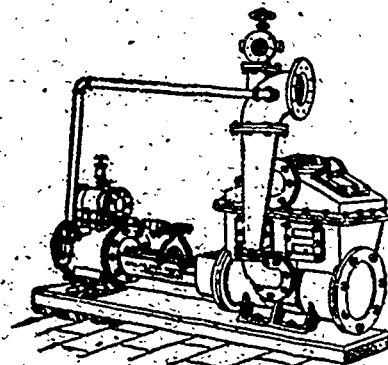


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**CUSTOMS RULINGS AND REGULATIONS.**

The Acting Commissioner of Customs has recently sent out notices to Collectors of Customs as follows :

Under date of November 2 it is stated that the attention of the Department had been called by the authorities of the Post Office Department, to the fact that frequently dutiable postal parcels forwarded by mail under manifest, arrive at their destination without the manifest attached thereto, in consequence of the manifest being attached to such parcels insecurely at the sending port, sometimes only with elastic bands. Complaint has also been made that such parcels are frequently not addressed plainly to the Customs officer for whom they are intended, thus interfering with the prompt delivery of the same. Collectors are instructed to see that all postal parcels forwarded from their Port or under their survey, by mail under manifest, have the manifest firmly attached thereto, and that such parcels are plainly addressed to the officer at point of destination.

Under date of November 6, the attention of the Department having been called to the practice which exists at many offices, of delaying the return of manifests to the sending port for the full period of 30 days mentioned in the Manifesting Regulations of 19th March, 1883, collectors are reminded that so soon as manifests are completed by entry or re-manifest, the one copy is, without fail, to be transmitted to the sending port; and in no case is the manifest to be held until the expiration of 30 days, unless the goods are not entered and have to be carried to the unclaimed list. Inspectors are instructed to report to the Department any neglect to carefully observe these instructions. Paragraph 11 of the regulations referred to is as follows: Manifests are to be recorded at the receiving ports, with consecutive numbers in the order of their arrival with ship or other Reports Inwards, and the sending port numbers are recorded. When the packages are all checked out of the cars the manifests are to be receipted and one copy returned to the sending port, the receiving port number and the entry or re-manifest number and stamp of the port being first placed thereon, with over and shorts, if any, marked on both copies. All manifests received are to be returned to the sending port within thirty days from date of reception as above, but if any goods received have not been entered the item must be marked with the number of the unclaimed list or the page of the book in which account of the unclaimed goods is kept.

Under date of November 8 the attention of Collectors is called to the necessity, when the statement of "Warehoused Goods," which is forwarded quarterly to the Department, is being prepared, of shewing the totals of articles appearing therein which are specially divided under a number of headings. This has not been done in the past, thus necessitating the addition being made in the Department, consequently imposing additional and unnecessary labor upon the statistical clerks there. Collectors are instructed that the return in question, when being prepared at their port, must show a total addition of the value only of the various articles which are entered under each of the generic headings, as follows: Breadstuffs, Collars, Drugs, Fancy Goods, Fish, Flax and manufacture of, Fruits and Nuts, all kinds, Glass and manufacture of, Iron and Steel, Leather and manufacture of, Oils, Paper, Silk, Woolens, gallons and value of Wines, not sparkling, and dozens and value of Wines, sparkling, Linseed Oil to be converted into gallons at rate of 9 lbs. to the gallon.

Under date of November 6 the attention of Collectors is called to the Act 55 56 Victoria, Chapter 4, intituled "An Act respecting aid by United States Wreckers in Canadian Waters," and the Act is recited. The proclamation by the Governor in Council referred to in the Act, was issued on the 17th May, 1893, bringing the above Act into force from and after the 1st day of June, 1893; and a proclamation was issued by the President of the United States on the 17th day of July, 1893, declaring the United States Act (similar) and amendments thereto, in full force and effect. The text of the proclamation of the President, referred to, is printed for the information of Collectors and forms the subject of Circular No. 14208 issued by the Treasury Department, Bureau of Navigation, Washington, on the 28th July, 1893, and forwarded to all Collectors of United States Customs.

Under date of October 28 an Order in Council was passed, placing the town of Mitchell, Ontario in the list of outports of Customs, and constituting it a warehousing port under the survey of the Collector of Customs at the Port of Stratford, to take effect from December 1st, 1893.

### THE EMPIRE AND ITS EDITORIALS.

IF it is not the result of gross ignorance, then it cannot but be of the most bitter partisanship on the part of the Empire that impels it to say so many ridiculous things in its editorial pages anent American politicians and the American form of government. Thus in a recent article, in which Mr. Andrew Carnegie and some of his sayings are discussed, speaking of Mr. Cleveland and the recent elections in some of the States, it says :

Finding that the great uncertainty regarding the President's intentions had unsettled commercial affairs and had tended largely to produce the disastrous conditions which obtain throughout the Union, the electors of many states seized the opportunity of the fall voting to express their opinion again, and that opinion, as shown in the returns, is something to give Mr. Cleveland pause. He has declared his intention of doing nothing which will be detrimental to American manufacturing interests, and although a vigorous policy may be expected from him on the minor details of tariff reform, so as to relieve as far as possible the farmer and the mechanic from any serious disability under which they may lie, he will not carry his reform so far as to jeopardize the stability of the country's trade, internal and external. He occupies a unique position, the like of which there is in no other country. No potentate upon earth has greater power than he, and in such a sovereignty it is well that there is a strong, able, wise and honorable man. Were he responsible to the people complications might arise, through the obvious change which has taken place in public opinion in that country within the past few months, serious enough to force him to go to the country, but the American constitution was not framed on the principal of responsible government as exemplified by the British Government or the Government of the British colonies. But still he is restricted by Congress, which has power to over-ride his measures and render his best intentions fruitless, should that body wish to do so. Therefore in the present state of affairs he will have to move warily and guard every action with the utmost circumspection if he wishes to make his administration a success and restore the country to the stable state it boasted when he was last in office.

It is true, in our opinion, that the recent revulsion in politics in Ohio and other states, and in New York also to a certain extent, was a rebuke to Mr. Cleveland and his party, because by their threats of so called tariff reform manufacturing establishments had been closed, thousands of employees thrown into idleness, and the commercial business of the country caused to crumble beneath their destroying hands. Those who dealt the Democratic party such staggering blows were men who were out of work, out of money, out of bread, and whose wives and little ones were in suffering and want. In Ohio and Massachusetts the results turned entirely upon the tariff question. We are no political friend of Mr. Cleveland, for if the platform of his party upon which he was elected were carried out, the disaster that has already appeared in the United States would have gone on to completeness, involving Canada, to a certain extent, in the ruin.

But although the Empire seems to think differently, Mr. Cleveland, as President, is not clothed with any legislative powers whatever. It is his duty to recommend laws for the consideration of Congress, and to enforce laws that have already been made, but he cannot make laws, and he would be very quickly impeached and removed from office if he should attempt to do so, or to do anything outside the constitutional sphere of his office. Therefore his declaration that he will not do anything which will be detrimental to the manufacturing interests of his country amounts to just nothing. If he had power to force legislation, why did the Senate hesitate so long in passing a Silver Bill? Mr. Cleveland's political friends in the House were numerous enough to rush a bill through in what might be called indecent haste; but the Empire thought that the hesitating of the Senate to accept that bill was indecent leisure. But Mr. Cleveland was powerless to expedite the measure, as much as he desired to see it rushed through. Therefore he is not in a position to carry out any of his so-called tariff reform ideas until such time as they may be made law by the concurrent legislation of both houses of Congress. It is ridiculous for the school boy editor of the Empire to declare that Mr. Cleveland is endowed with greater power than any potentate upon earth. Any ten-year-old pupil in any public school in Toronto knows that the President of the United States is restricted by law in the performance of his duties, and that there are many potentates who possess and wield absolute power, which Mr. Cleveland does not possess, nor could he possibly use. The school children of Toronto know, if the Empire does not, that Mr. Cleveland is responsible to the people who placed him in his high position: and they know that it is the members of the House of Representatives, who help make the laws, who must answer to their constituents for whatever they do, and not the President, whose duty it is to enforce the laws. The children also know that the President cannot put any of his measures into effect that have not the sanction of law, and, therefore, Congress never has occasion to over-ride anything that the President may do, unless it is a violation of the constitution or of some law which Congress has already made.

It is remarkable how glibly and ignorantly the Empire can discuss matters about which it knows absolutely nothing, judging by some of its expressions: and it is also remarkable how glibly and voluminously it keeps its mouth shut when it might reasonably be expected that it would say something—express some opinion regarding Canadian questions that are of the utmost importance, and upon which the Government have repeatedly said they would like to have light. Of the many burning questions now agitating the country we mention a few, which we suggest that the Empire discuss. We mention that feature of the tariff that imposes a duty of only \$2 per ton upon scrap iron; the duty of \$16 per ton upon refined sugar, while the McKinley tariff imposes a duty of only \$10; the duty of \$16 per ton upon wholesome raw sugar, quite good for domestic purposes, while under the McKinley tariff the article is duty free; the propriety of the Government encouraging the beet sugar industry similar to the way it is encouraged in the United States, this with special reference to the farming interests. If the Empire will discuss these questions, then we will ask for expressions of opinion in the matter of placing a duty upon steel rails, and of bonusing the home production of the article; of placing an export duty on nickel ore and

matte, and on saw-logs, and also about fixing a rate not exceeding two cents per mile for railroad fare. The discussion of these questions would be of more interest to Canadians than the ignorant stuff it gets off about the United States.

#### MANUFACTURING vs. TARIFF REFORM IN MANITOBA.

Under the caption "Manufacturing in Winnipeg" we find the following editorial in a recent issue of the Commercial of that city:—

The McCormick company of Chicago, manufacturers of harvesting machinery, have replied negatively to the communication from the Winnipeg city authorities regarding the establishment of a factory here. The McCormick company contemplate the establishment of a branch factory somewhere in Canada, and as there is a large and growing sale of harvesting machinery in the West, the Winnipeg city council thought the company might possibly be induced to locate the proposed factory here, hence the communication referred to. In their reply the McCormick people say:

"We do not think the city of Winnipeg is so situated as to permit of a factory being successfully operated in our line of business. Its product would have to be shipped east as well as west, and the raw material of which our machines are composed is largely steel and malleable castings. We cannot, in consequence, entertain any proposition which your city could offer us."

This is a heavy sit-down upon the hopes of the civic authorities, but our citizens need not give up hope for the future of Winnipeg as a manufacturing centre all the same. The McCormick harvester, so its manufacturers say, is largely composed of steel and malleable cast. We are supposed to have abundance of the raw material for such goods, within easy reach of the city. On Lake Winnipeg there are said to be great deposits of iron ore of high quality, suitable for making the finest steel. With a little improvement to the navigation of the Red river, this raw material could be laid down at our door by a short and cheap water route. Some day these improvements will be made, and some day these natural sources of wealth will be utilized. Then we have a water-power also at hand, which could be utilized to turn the wheels of industry. In their present state these are of no value, but some years later we may be able to offer a harvest machinery company iron and steel made in Winnipeg, with water power to assist in producing goods at a minimum cost.

In the adjoining page is another editorial entitled "Reasonable Tariff Reform" in which is set forth the platform of the Commercial, with the assurance that the politician who professes any desire for tariff reform and is not prepared to make the concessions asked for in the platform, "is a hypocrite and a fraud," and at the same time a dangerous enemy to the western pioneers. This language seems to be just a little bit rough on any who may happen to differ in any particular with the statesman of the Commercial, and therefore it is with fear and trembling we venture to criticise the aforesaid immaculate platform. We would venture to remark, however, that other wise men than the editor of the Commercial have given considerable study to the question and have arrived at a different conclusion, among whom we might mention the late Sir John Macdonald, who, if we are correctly informed, taught that while ad valorem duties only were the correct application of the tariff to certain articles, and specific duties equally correct in others, that even a combination of both ad valorem and specific was what is required in yet other articles, the greatest good to the greatest number being the object in

levying them. We are also informed that statesmen in other countries have entertained and do agree and assent to this theory.

The platform announced by our Winnipeg contemporary is summed up in a demand for the abolition of all specific duties and the substitution of moderate ad valorem duties instead; and that the moderation alluded to be fixed at a maximum of twenty per cent. We are told that this platform is commendable, because it is equitable even to those who claim protection by tariff; because it will not tend to crush out of existence any industries requiring protection; because consumers will share in the general cheapening of goods; because it will reduce the tariff controversy to a state of plainness which any sane man can grasp and comprehend, and because it is reasonable, and one which could be consistently adopted even by a government at holding to the protective policy. "The politician, therefore," says the Commercial, "who professes any desire for tariff reform, and is not prepared to make the concessions asked for in this platform, is a hypocrite and a fraud, and at the same time a dangerous enemy to the western pioneer."

There can be no possible argument with those from whom we happen to differ when the differer is denounced as a hypocrite and a fraud merely because he differs; and therefore our surprise is that the Commercial should find itself reduced to such a position as it has assumed. But its bad language does not necessarily prove its dicta.

A specific duty is so much per yard, or pound, or bushel or other measure of quantity without regard to value; while an ad valorem duty is a certain percentage of the value of the article. In theory ad valorem duties are the most equitable, being adaptable to changes in the cost of production, but in practice they open wide the door to frauds in undervaluation. A dishonest importer may not only defraud the government, but he may also obtain an undue advantage over his honest competitor. Therefore, as far as possible duties should be specific. The question as to the desirability of levying specific duties has been discussed probably more fully in the United States than in any other country; and the fact that that method has been so uniformly observed there ever since the foundation of the republic is evidence that the wise men there thought that it should apply whenever possible. In 1795 Alexander Hamilton said: "In other nations experience has led to contract more and more the number of articles rated ad valorem, and, of course, to extend the number of those rated specifically. The reason of this is obvious: it is to guard against evasions." In 1801 Albert Gallatin said: "In order to guard as far as possible against the value of goods being underrated in the invoices, it would be eligible to lay specific duties on all such articles as now pay duties ad valorem as may be susceptible of that alteration." In 1816 Secretary Dallas, who was afterwards vice-president, said: "Articles imported to a great amount should rather be charged with specific duties upon their weight and measure, in order to guard against evasions and frauds, than with ad valorem duties on their value." In 1849 Secretary Meredith said: "Experience has demonstrated that a specific duty is more easily assessed, more favorable to commerce, more equal and less exposed to fraud than any other system." In 1876 Secretary Bristow said: "Another remedy, and the most effective which could be adopted for correcting the evils of the appraisement system, is the substitution as far as practicable, of specific for ad valorem duties." In

1878 Secretary Sherman said: "As a rule specific duties are to be preferred to either *ad valorem* or compound rates; and in any future revision of the tariff it is hoped that Congress will give preference to this system of imposing duties as far as possible."

Pages of this sort of testimony could be adduced if necessary. Of course the Commercial will say that if duties are made low the temptation to commit fraud will be reduced; but experience proves that a duty which is high enough to yield either revenue or protection is high enough to be evaded if possible.

We are told that the tariff reform in the direction of free trade will not tend to crush out of existence any industries requiring a protective tariff; the evident desire being to ultimately raise revenue by such a system as that of Great Britain. In that country no duty is laid upon any article not made there, unless it be to countervail excise duties laid upon British beer and spirits. Thus upon unmanufactured tobacco the duty is 75 cents per pound, or 84 cents if of not less than ten per cent. moisture. On manufactured tobacco the duty is 96 cents and \$1.10 per pound for two kinds, and on snuff and cigars from \$1 to \$1.30 per pound. On raw coffee the duty is 14 shillings per hundred pounds; and if roasted or ground 17 shillings. Here is pronounced discrimination between raw materials and manufactured goods in favor of the British manufacturer, and is tariff protection.

The McCormick Company, of Chicago, are perhaps the largest and most wealthy manufacturers of agricultural implements in the United States, and their works there have quite full capacity to supply all the demand that might be created in Canada for their goods. With free trade in such goods, or even a tariff for revenue only, there would be no necessity for this company to establish works in Winnipeg or any where else in Canada. And still we observe, as alluded to in the Commercial, that the authorities of Winnipeg have been making strong efforts to induce the McCormick Company to establish a factory there; and although the company decline the offers made them, the Commercial does not give up hope for the future of Winnipeg as a manufacturing centre. How ridiculously inconsistent. The policy that might have given a large manufacturing industry to Winnipeg, affording employment to hundreds of skilled workmen, who would consume hundreds of thousands of dollars worth annually of the products of the neighboring farmers, is what the Commercial denounces; and it advocates a policy that would most assuredly allow the manufacture of agricultural machinery for Manitoba farmers to be carried on in Chicago.

And then we are told that there is abundance of raw material for the manufacture of iron and steel within easy reach of Winnipeg, and that at some day these resources of wealth will be utilized; that some years hence Winnipeg will be in a position to offer a harvest machinery company iron and steel made in that city. There are other cities in Canada which possess quite as great facilities as Winnipeg for the manufacture of iron and steel, where the industry has not yet eventuated, and never will under existing tariff laws; and yet the Commercial in one breath talks hopefully about Winnipeg having such an industry and in another demands that the tariff laws be so changed as to make such an event absolutely impossible. How ridiculously inconsistent.

No doubt the wise statesman of the Commercial thinks he is seeking to benefit Manitoba farmers, or rather seeking to make the farmers believe that he has their interest at heart in endeavoring to institute radical tariff reform; but he is on the wrong track. Diversified industries will benefit the farmers, which means that it would be much more profitable to raise chickens and eggs, beef and mutton, and fruits and vegetables to be consumed at home by workers in iron mines, steel works and agricultural implement works than to raise wheat to be sold in Liverpool. It would be a blessing to Manitoba farmers if a bonus of two cents per pound were paid upon the manufacture of beet sugar made from beets produced on Manitoba farms. It would be a happy diversification of their labors. It would be a blessing to them, now that they have embarked in the growing of flax, if a proper adjustment of the tariff caused the establishment in Winnipeg or elsewhere of factories for the manufacture of binder twine. The prosperity of Manitoba and of the whole country demands the greatest possible diversification of both agricultural and manufacturing industries rather than the destruction of such as we already have.

#### DOMINION INSOLVENCY LEGISLATION NEEDED.

This journal has heretofore directed attention to the great need for insolvency legislation which will bear with equal effect in all parts of the country from the Atlantic to the Pacific. It is the aim of all our Dominion legislation to foster and encourage interprovincial trade, and with this object in view railways have been built, canals dug and kept navigable, and the customs and excise duties made to bear alike in all sections. Under these laws interprovincial trade has assumed very large proportions, and it is found that we are fast nearing the time when most of the requirements of any part of the country may be met by the supplies produced in other parts. This is as it should be, of course, and as far as it goes is a fulfillment of what was hoped of and promised for the National Policy.

The development of this interprovincial trade, however, has demonstrated the necessity for some system of laws for the collection of debts, the liquidation of insolvent estates, and the regulation of some of the features of the commerce existing between the different provinces, applicable alike everywhere. That such laws should exist is unquestioned; unfortunately they do not exist. Under the British North America Act, all laws relating to insolvency and bankruptcy are exclusively within the jurisdiction of the Dominion Parliament. The Parliament, however, have thus far declined to make any such laws, and it therefore remains with the commercial community to avail themselves of any legislation that the different provinces may have made in this direction. If all the provinces had made such laws, and if such laws were equitable and effective, the neglect of the Dominion Government to legislate in this direction, would not be so severely felt. But only Ontario and Quebec have enacted any laws that possess much value to those doing business outside of them, such laws as may exist in other provinces affording but little or no relief to creditors residing elsewhere. There is no uniformity in existing laws, nor is it likely there will ever be, and the only source of hope in the emergency is in the Dominion Parlia-

ment. What is wanted is a law applicable alike throughout Canada, by which a creditor in New Brunswick or Nova Scotia would stand on equal footing with a creditor in British Columbia in any insolvency or bankruptcy proceedings that might be instituted against a creditor in the latter province.

The Boards of Trade of Montreal, Toronto and other cities are moving actively in this matter, and bringing pressure to bear to induce the Government to introduce the necessary legislation at the forthcoming session of Parliament. Politics cannot possibly enter into any consideration of the matter, as indeed it should not do, and no doubt any well-considered bill would meet the hearty approval of all the members. Manufacturers are interested in the enactment of such legislation, and no doubt any support they could afford it would be most cheerfully rendered.

**BEEET SUGAR.**

The Sugar Beet, of Philadelphia, publishes a great deal of interesting matter on the subject of beet sugar. It shows that the area under cultivation to the sugar beet in Europe in 1892-93 was:

	Acres.		Acres.
France . . . . .	552,281	Russia . . . . .	740,004
Germany . . . . .	872,080	Belgium . . . . .	125,810
Austro-Hungary . . . . .	755,200	Holland . . . . .	60,000
			3,115,525

This is about 7 per cent. more than during 1891-92.

It mentions that in the Nebraska State Building at the World's Fair samples of beet sugar were gratuitously distributed, and the public was thus able to appreciate that between beet sugar made in the United States and cane sugar from the West Indies there is not the slightest difference. On the boxes containing the samples the following facts were stated: Output of factory (Grand Island), 1890, 750,000 lbs.; 1891, 2,500,000 lbs.; 1892, 3,500,000 lbs.; probable output for 1893, 6,000,000 lbs.; acreage planted in beets for 1893, 6,000; average yield of beets, 15 tons per acre; price paid per ton, \$5; per cent. of saccharine matter, 13 to 22; average quantity of granulated sugar per ton of beets, 200 lbs.

From Utah, beets from Verbesserter Imperial Rose seed were shown, which yielded 25 tons per acre; per cent. sugar, 16.4; purity, 86. A jar containing beet sugar from the Utah factory was exhibited, the sugar grading 99.9 per cent pure.

The Chino Valley beet sugar factory, in California, had 27,000 tons beets delivered at the works last year, testing 15 per cent. sugar, and expects 60,000 tons this year.

In the State of California, 9,070 acres of beets were raised last year, and the average sugar yield was 2,403 lbs. per acre. This is higher than obtained either in France or Austria, where the average in 1891 was 2,275 lbs. and 2,213 lbs. respectively.

The correspondent of the Sugar Beet, writing from San Francisco, October, 1893, says: "No better example could be given of the money to be made out of beets than an example found in Chino, under the Gird organization, where 20 acres of land were paid for in beets. With a very carefully itemised account, 436 tons of beets were taken from this soil; which were sold for \$1,962. The cost was: Plowing, \$40; harrowing, \$12; seed, \$30; seeding, \$8;

thinning, \$80; cultivating twice, \$12; weeding, \$20; topping, \$108; plowing out beets, \$40; hauling to factory, \$174; tare at factory, \$60; total expenses, \$584; leaving a net profit of \$1,377, which corresponds to a net profit of \$68.87 per acre."

The Weekly Gazette, of Anaheim, California, tells of one individual who purchased 40 acres of land last spring for \$36 per acre, and has had a return of \$4,000 from 35 acres of it in beets. There are many advantages in sugar beet culture. Different varieties of seed can be used, requiring from 150 to 180 days for maturing, so that both seed time and harvest may be prolonged as found expedient. The higher the cultivation the better the yield, and the higher the percentage of sugar. A great deal of labor is required to produce good results, but the returns yielded to the labor are in far greater proportion than for any other crop. The condition of the land cultivated to beets is greatly improved for future crops.

A sufficient number of experiments has been made in all parts of this Province to show, beyond a doubt, that nearly every section of Ontario is admirably adapted for producing sugar beets of superior quality, and with a yield per acre unequalled in Europe. Canadians are now paying \$12,000,000 to \$15,000,000 per year for foreign sugar. What an impetus would be given to agriculture, manufactures and commerce if this immense sum could be expended in home production!

**MR. CHARLTON ON RECIPROCTY.**

THE Globe, November 3rd, devotes almost eight columns to the report of an address on Reciprocity, delivered by Mr. John Charlton, M.P. for South Norfolk, to his constituents, at a meeting held in Waterford, on November 2nd. Mr. Charlton has obtained, in some quarters, a somewhat questionable reputation for special sanctity, partly owing to the position which he holds in the Church to which he adheres, but mainly owing to his very ostentatious championship in Parliament of female chastity and strict Sabbath observance. To his former reputed virtues, Mr. Charlton, in the address referred to, desires should be added a special regard for truthfulness and a decided dislike to partizanship. In his introductory remarks to his constituents he claims credence for his statements because "his appeal would be to their reason; and he would make no statement that he did not believe to be strictly true." "Party spirit, within legitimate lines," he said, "was proper enough, but that kind of party spirit and party discipline which led the voter to make the interests of his country, of his fellow citizens and of himself subordinate to the interests of his party leaders and the party machine was a deplorable evil;" and he "had no desire to appeal to passion or prejudice."

Now, Mr. Charlton is one of the ablest of the leaders of the Reform party; and from his long and wide political and business experience, and ready and full access to all the official documents of his own country and of the United States, he is perfectly competent to obtain and present correct statements relative to the commerce between the two countries; and if his statements should prove to be incorrect, it may be fairly assumed that they are wilfully so. A careful study of the long address in review shows that, in the face of his repeated pro-



fessions of truthfulness and candor, there is not to be found a single important fact wholly and truthfully told; a single deduction honestly stated, or a single charge against his political opponents impartially advanced. Mr. Charlton is perfectly aware that the telling of half truths is the most cowardly and dangerous kind of falsehood. A few of his statements and arguments may be considered.

He says: "The total exports of Ontario to the United States and Great Britain were, in 1888: Exports to the United States, \$23,074,000; exports to Great Britain, \$4,000,000, or nearly 6 to 1 to the United States."

These figures are boldly stated as an illustration of the fact that the United States is our chief market for Ontario products. Is this a true, or even approximately true statement? Mr. Charlton omitted to state that a large proportion of the exports to the United States consisted of produce not sold to, but merely shipped through that country, and that the value of the proportion should be deducted from the exports to the United States and the greater part of it added to the exports to Great Britain. He also omitted to state that by far the largest proportion of the exports from Ontario to the United Kingdom or other countries in Europe goes by way of Montreal, and appears in the trade returns as exports from the Province of Quebec. Mr. Charlton knows that in that very year the value of Ontario products sold in Great Britain was greater than the value sold in the United States; but by his system of telling half truths, makes out that the proportion was 6 to 1 the other way.

Again, referring to 1891, Mr. Charlton says: "In 1891, when the effects of the McKinley Bill during the latter half of the year began to be felt, the exports were: To the United States, \$20,953,000; to Great Britain, \$5,216,000, or about 4 to 1." Here, again, the same kind of half truths and the same false conclusion. Mr. Charlton must greatly underrate the intelligence of his constituents when he attempts to palm off upon them such palpable and silly misrepresentations. He understands perfectly well that it is impossible for him, or for any one, to calculate the value of Ontario's exports, because the Trade and Navigation returns, while showing the values of merchandise shipped from the ports in the different Provinces, do not pretend to show the values of the products of each Province. He knows that the greater part of the exports from the Province of Ontario to Great Britain are included in the returns of exports from Montreal, Quebec, Halifax, etc.; and in a special statement shows the value of merchandise shipped through the United States in bond for trans-shipment to Great Britain and other countries. He knows, also, that the question of reciprocity is not one between the Province of Ontario, but the whole Dominion and the United States. The true comparison, as he is fully aware, is between the exports of all Canada to United States and Great Britain. What are the correct figures for 1891, the year which Mr. Charlton selects for comparison?

The Quarterly Report, Nov. 1, 1892-93, of the Chief of the Bureau of Statistics at Washington, on Imports and Exports, shows that the value of the merchandise imported into the United States from the Dominion of Canada, and entered for consumption during the year ending June 30, 1891, was \$31,071,022; and deducting from this the value of United States merchandise returned, and the household effects of

settlers, etc., leaves imports of merchandise from the whole Dominion, \$28,461,686, and of this amount \$2,451,136 consisted of foreign goods not the product of Canada.

The Canadian Trade and Navigation returns show exports to Great Britain during same year, \$49,280,858, of which there was of the produce of Canada \$43,243,784, to which should be added a considerable sum for exports to Great Britain, exported through the United States, but entered as exports to United States. In fact, the exports to Great Britain in 1891 were nearly double those to the United States. Yet this Mr. Charlton, who pledged himself to make no statements that he did not believe to be strictly true, has the hardihood to assert that the proportion for Ontario was about 4 to 1 in favor of the United States, and that its exports to Great Britain amounted to only \$5,216,000; and the Globe devotes over eight columns to the dissemination of such palpable falsehoods.

Mr. Charlton's exposition of the working of the old Reciprocity treaty is equally false and misleading. He states:

Canadian exports to United States, 1854.....	\$10,473,000
" " " 1855.....	10,316,000
" " " 1866.....	30,050,000
" " " 1892.....	38,088,000

He argues that under a continuance of reciprocity, the exports to the United States in 1892 should have been \$101,650,000, and says: "It was unnecessary to descant upon the difference it would have made to Canada if the exports to the United States in 1892 had been \$61,700,000 greater than they were, and, upon the same basis of calculation, \$6,000,000 greater in 1893 than they were." This question is just as silly and as useless as it would be to enquire what would have been the effect on Canada if England had maintained the Corn Laws and Timber Duties from 1846 until now. Apart from the absurdity of such questions, there is a radical misrepresentation in Mr. Charlton's method of presenting the figures relative to the operation of reciprocity. The comparison between 1855 and 1866 is very misleading, and the figures for the intermediate years have been intentionally omitted because they clearly prove that there was not a natural or gradual advance up to 1866. The United States returns show imports from all British North American possessions: In 1855, \$15,118,289, increasing in 1856 to \$21,276,614, and in 1857 to \$22,108,916, falling off in 1858 to \$15,784,836 (or nearly the same as three years before), increasing in 1859 to \$19,287,565, in 1860 to \$23,572,489, decreasing in 1861 to \$22,724,489, in 1862 to \$18,515,685, in 1863 to \$17,191,217, increasing in 1864 to \$29,608,736, in 1865 to \$33,264,405, and in 1866 to \$48,528,628. The large increases during the last three years were evidently attributable to the devastating effects of the disastrous war, which had diminished native production and necessitated extraordinary importation. Mr. Charlton, with his boasted regard for truthfulness, conceals all the figures from 1855 to 1866, which show the natural operation of the treaty, selects the year when the effects of the war were most strongly felt, and builds upon this a hypothetical increase in trade, which any school boy with the figures before him would treat with derision.

Nor is Mr. Charlton one whit more honest and ingenuous in treating with the kind of reciprocity which Canada has a right to expect and to accept or refuse. Mr. Charlton may be considered as one of the most prominent leaders of that section

of the Reform party whose affinities lead them rather in the direction of closer connection, political or commercial, with the United States than with Great Britain. They see no hope of prosperity for Canada except through the acceptance of such trade relations with the United States as it may please that country to offer. In all the discussions on the subject of reciprocity, their efforts are exclusively devoted to the display of the advantages which Canada would derive, when it might be expected that, if sincerely in favor of reciprocity, they would be zealously engaged in showing the advantages which Canada can offer under such a policy. Mr. Charlton knows that Canada purchases from the United States about the same value of raw products as the United States purchases from Canada, and that Canada purchases annually from the United States over twenty million dollars more in manufactured goods than it sells to that country; and yet he pretends to believe that the Government of Canada is not justified in asking for reciprocity in raw products. The business sense of the community in both countries is largely in favor of such an arrangement, but the politicians of the United States seem anxious to make political capital out of the question, especially in the way of establishing discrimination against Great Britain, and Mr. Charlton and his friends, instead of standing by their own country and Government, are doing everything in their power to frustrate the efforts which are being made to secure a fair and equitable arrangement.

Mr. Charlton accuses the Canadian Government of insincerity in their efforts to obtain reciprocity, and of duplicity in their negotiations with the Administration at Washington. He omitted to tell his constituents that the Canadian representatives who went to Washington have received from the British Ambassador, who was present at the interviews, a full confirmation of their report of all the proceedings. They say that one of the conditions insisted on by Mr. Blaine was uniformity of tariffs. Mr. Charlton, who was not present, says: "Now, the mistake into which the Minister of Finance had fallen in connection with the question of uniformity of tariff is probably this: Mr. Blaine asserted that, with reference to wool and woollens, it would be necessary to make the tariff of the two countries uniform." How does Mr. Charlton know that this was probable when the reports, from which he had been quoting immediately before saying this, reads: "This could, in his opinion (Mr. Blaine's), only be done by making the tariff uniform for both countries, and equalizing the Canadian with that of the United States." Mr. Charlton sees no great obstacle in this condition, although the discrimination against other countries, and the adoption of the prohibitory United States tariff thereby involved, would imperil our political and commercial relations with Great Britain and other nations. He undertakes to speak for England, that the policy proposed would be "without injurious results to British interests," and says that the scope of our enquiries need be no wider than Canadian interests. Mr. Charlton fails to show that Canadian interests would be served by submitting to any other terms than those proposed by Canada's own Government. He thinks the McKinley tariff is not such an ultra-protectionist tariff as is generally supposed, and supports this view by a comparison between the per capita customs taxation in the two countries, which he states as \$2.75 in the United States and \$4.25 in Canada, but he omits to state that the

average rate of duty on dutiable goods in the former country is nearly 50 per cent., while in Canada it is under 30 per cent. In the early part of his address he complains that farmers' "purchases are made in a restricted market, where heavy toll is exacted upon almost every purchase made by them." As a remedy for this, he proposes to restrict not only farmers but all Canadians to the purchase of their merchandise in that one market which exacts the heaviest toll levied in any country in the world.

Many pages of our paper could be filled in stating all the misrepresentations and inconsistencies found scattered through Mr. Charlton's long address. It is painful to find a prominent politician prostituting his ability and experience to the dissemination of gross and wilful misrepresentations, and all the more painful because of the protestations of candour and impartiality with which they are prefaced. Mr. Charlton may be an ardent admirer of virtue; he may have a strict regard for the sanctity of the Sabbath; he may pose as a lover of truth and a hater of partizanship, but, beyond doubt, this long address at Waterford stamps him as a first-class falsifier, and a very unfit person for any public office in which rectitude and integrity are demanded.

#### A FALLACY EXPOSED.

Putting down our tariff won't give Canadian producers the entrance to any other market.—Toronto Empire.

The making of this statement implies ignorance of the first principles of international trade. All trade is barter. We pay for products with products. If we make it easy for our people to buy, does not that imply that we make it easier for them to sell? For this reason every barrier that we raise up against importing the products of other countries just makes it so much the more the difficult for them to pay for what we have to sell, and supplies them with an inducement to look for other and freer markets in which to buy than we possess. Suppose it were possible for us to cut off our imports with other countries entirely, how long would any nation continue to buy our products? The lower our taxes on imports, the greater will be the extent of our imports, no matter how other countries may tax themselves. If other nations can be prevailed upon to emancipate their international trade, there would certainly be more profit for us, as well as for them, but it does not pay us to collect more revenue than is necessary for economically running the machinery of Government merely because some other country, exchanging products with us, indulges in that absurd policy. Every tax is a hinderance to trade. No tax that can be dispensed with should be collected no matter what other nations may do. That is the British idea; it has made Britain the greatest mart of trade in the world as well as the money center. What is good for the experienced mother cannot be bad for the eldest daughter.—London Advertiser.

Our esteemed Advertiser undertakes to expose what it calls a fallacy of the Empire, and almost every line of its expose contains a fallacy. Admitting gold to be a medium of exchange, and separating it from what the Advertiser calls products, and it is a fallacy that all our products are paid for by other products. It may be that all trade was barter in the olden days before gold and silver were made mediums of exchange. We read that at a certain time a famine prevailed, and that Jacob sent his sons into Egypt to buy corn, taking the money along with which to pay for it. This transaction was a barter sure enough, but it was a barter of gold for grain, and no agricultural or manufactured product was paid for the agricultural product of the Egyptians. It is a

fallacy to say that if we make it easy for our people to buy we make it easy for them to sell, if by that the Advertiser means that if we allow foreign goods to be imported free of duty the advantage will result in better prices for what we have to sell. Our worthy contemporary will no doubt admit that it is essential to the welfare of the country that the industries of the people be diversified as greatly as possible. If this diversity includes the production of such things as the Advertiser desires to be admitted duty free; if such things are made in this country then the country is evidently benefited thereby. If it costs more to make them at home than it does abroad it is because home labor receives greater remuneration than foreign labor, and the duty should approximate the difference. This is protection. The home producer of manufactured goods is the consumer of the home producer of agricultural goods, and the former is the producer of the necessaries of the manufacturing workman. It is not necessary, then, that a foreign market be sought for such of our agricultural products, or our manufactured products, as can be consumed at home. It is a fallacy that if we raise up a barrier, that is, if we impose a tariff duty upon the products of other countries, we make it just so much the more difficult for those countries to pay for what we may have to sell; neither is the existence of our tariff an inducement for them to look for other and freer markets than ours in which to purchase. Does the Advertiser suppose that if we had free trade we would obtain any more for our exported wheat and beef? The question of our tariff has absolutely nothing to do with the price of wheat or beef in England; and it is a fallacy to so assert. We consume fruits grown in Turkey, and spices grown in Sumatra and the far East. We do but little export business with these countries, but the monetary system of the world makes it possible for us to meet any balance of trade that may be against us by exchange on London. It is a fallacy to suppose that if we were by our tariff to cut off our imports from any country entirely that that country would not continue to buy our products, that is, if they were wanted. For instance if we bought nothing whatever from the United States, that country would undoubtedly continue to take our nickel, if we would allow it, just because it is an article it must have; and if we placed an export duty upon it it would go all the same.

It is not a fallacy, however, to say that the lower our duties on imports the greater will be the extent of our imports; and this induces the question why, if a diversification of industries is essential to the prosperity of Canada, we should lower our duties to a point where many of our industries would be destroyed simply to augment the volume of imports? Farmers who sell all their products at home find better remuneration than those who ship abroad. Destruction of any home industry would mean a contraction of the home market, and the forcing of shipments abroad of produce that ought to be consumed at home.

The Advertiser sees this matter entirely from the point of view of the importer and ship owner. We view it from a standpoint which includes the whole country. If we were a nation of producers of food and raw materials for British manufacturers and workmen, our foreign trade would be much greater than it now is; and that is what the British manufacturers and ship owners, and the Canadian importers most earnestly desire.

#### ADVERTISING FAKIRS.

It has heretofore been the unpleasant duty of this journal to direct attention to the practices of the daily papers of Toronto, during the time of the Toronto Industrial Exhibition, in absolutely refusing to make any mention of any exhibits made by manufacturers, unless the same were paid for at so much per line. This practice has degenerated into an abuse which is most pernicious in its effects, particularly upon the success of the Fair, and which it is our desire to abate.

Several years ago the Exhibition Association, with a laudable desire to advance the legitimate interests of the Toronto daily newspapers at the Fair, erected a large and conveniently arranged building in a prominent location in the Fair Grounds for their accommodation. Each paper was assigned a pleasant office for individual use, and a large general room was at the service of all other papers that might desire desk room. The assignment of these rooms and accommodations was placed in the hands of a committee of men connected with the Toronto papers, the intention being that all Toronto papers which desired accommodation in the Press Bureau should have it. It was not long, however, before the advertising representatives of the Toronto daily papers captured the management and control of the building, and, as far as they were able to do so, excluded all but themselves from the office rooms on the lower floor. This self appointed committee for the 1893 Fair was constituted as follows:—President E. W. Gardner, of the Telegram; Secretary-treasurer, Alexander Fraser, of the Mail, the general committee being J. A. Klein of the Empire; E. L. Yeigh, of the Globe; W. Wilkinson, of the World; W. E. Caiger, of the News; and C. Campbell, of the Star.

It is not understood that these persons represented either the editorial or reportorial departments of the papers to which they were attached; and the rooms they occupied in the Press Bureau were more in the nature of lairs from which these advertising cormorants sallied forth and swooped down upon the manufacturers who happened to have exhibits at the Fair, the understanding being that no paper would make any mention whatever of any such exhibit unless it was paid for at so much per line. Other matters of interest at the Fair, however, might receive good notices in the papers. Having free passes to the refreshment tables, the names of the guests invited from day to day to lunch with the Fair Directors were faithfully given, and the complimentary things they said duly reported. The events in the horse ring, and the attractions before the grand stand were all described and commented upon; and mention was made of the horses, cattle, sheep, swine, poultry and dogs; and even the side shows, particularly if the newspaper advertising men were favored with dead head passes, were accorded much space in the papers in their daily reports of the doings at the Fair. It is true some of the exhibiting manufacturers felt that they would rather put up some good money to pay for newspaper notices of their exhibits, knowing they could not be obtained in any other manner. But whatever benefit might have been derived from such notices in past years, under the circumstances it could not but be that the method would degenerate into an abuse. It became quite well understood that such notices did not express the free and unbiased opinions of the honest newspaper reporter desiring to tell his readers about the attractions to be seen at the Fair; but rather the puffery and quackery of the advertising

solicitor who was to realize so much per line for all the partial, unreliable and fulsome write up taffy and twaddle that he could obtain from the exhibitor, multiplying words that represented so much money for his paper. We are pleased to state that the fight this journal is making upon this pernicious system is having good effect, for we have already published quite a number of letters from some of the more prominent exhibitors at the Fair, denouncing the system, commending us for the stand we have taken regarding it, and warning the Toronto Industrial Exhibition Association that unless the evil is abated, many exhibitors will decline in the future to show

The Toronto Fair is in activity only a couple of weeks during the year, and while the advertising solicitors of the Toronto daily papers make full use of those occasions, and bleed the exhibitors to the utmost while it lasts, they recognize the fact that they cannot go hungry the balance of the time. There seems to be an indefinite amount of possible advertising in sight which these cormorants desire to scoop for their respective papers; but their voraciousness is such that it appears that by the ordinary methods of respectable business operations there is not enough to go around, and some of them are endeavoring to choke off those that can be thus disposed of. Naturally these latter are not willing to submit to the process, as is exemplified in the fight now on between the Mail and the World. Those who know the Mail are not surprised at its tactics in endeavoring to obtain business; and those who know the World know that when it thinks itself encroached upon it is a vigorous fighter. In the light of the Fair business, it seems to be very much of a case of dog eat dog. We are not interested. If it should become a case of Kilkenny cats, where each eat up the other, we would not weep. They never would be missed. We are reminded of the adage about the falling out of rogues. According to the World the advertising staff of the Mail are all fakirs, though, in the light of the Fair business, all these papers are tarred with the same stick. At the Fair the advertising solicitors of the Toronto daily papers pursue the exhibiting manufacturers like ravenous sharks; now they are like remoras that attack and suck the life blood from each other.

Hear what some exhibitors at the recent Fair say regarding the methods of the Toronto daily newspapers:—

The Johnston Fluid Beef Co., Montreal. "In our opinion anything but a complete and impartial report of all the displays of exhibitors at exhibitions, such as that held in Toronto, utterly fails of any good results, because it is apparent to the public that when only a partial report is given, such reports are paid for, and consequently the public do not want to read what a paper has been paid to say. If a paper desires to be a medium of information to the public, its reports should be thorough and impartial. When the public read such reports it gets a just and correct idea of the merits of the exhibits, and not exaggerated comments which are often far from the truth. Puffs should be over the name of the exhibitor, but the criticisms newspapers make should be impartial, and to be so must not be paid for. We have long felt that the reports of exhibits at fairs, as published, fail completely to inform the public accurately."

John Abell Engine and Machine Works, Toronto. "I think it would be vastly better for all concerned if trustworthy reports of the exhibits at the Toronto Industrial Exhibition

were given by the daily papers as a matter of news. Of course the Toronto papers have contributed much to the success of the Fair, and are entitled to a fair meed of praise therefore, but as it is now the initiated are well aware that it is only merely a matter of money to have the most glowing accounts of exhibits and exhibitors given in their columns. The system of 'no pay no notice' is bad and should be done away with, at once."

The Waterloo Manufacturing Company, Waterloo, Ont., manufacturers of agricultural implements. "We heartily endorse the Canadian Manufacturer in denouncing the unscrupulous manner in which the Toronto daily newspaper men impose upon manufacturers at the Toronto Industrial Fair. We think it is high time that manufacturers combine to rid themselves of the nuisance."

Newlands & Co., Galt, Ont., manufacturers of glove, shoe and rubber linings, Saskatchewan buffalo robes, etc. "We have had great pleasure in reading the editorials in the Canadian Manufacturer re the methods of the daily papers at the Toronto Industrial Exhibition. We fully coincide with you."

The Cant Bros. Company, of Galt, Ont., manufacturers of wood working machinery, etc. "I am sorry to say that I am obliged to agree with the Canadian Manufacturer in what it says respecting what I might call the system of blackmail practised on manufacturers at both the Toronto and Montreal Fairs by the advertising solicitors of the daily papers. The system is carried on so unblushingly that such notices as are given carry no weight, as every one knows that they simply mean just so much money. I cannot believe, however, that the managers of those paper are cognizant of the system, and the sooner it is brought to their notice the better. The plan the Manufacturer proposes is the best for attaining the end in view, viz, of stamping it out."

Preston, Ont., Agricultural Works, P. E. Shantz, proprietor. "We are glad to know that you have taken the stand you have in the Canadian Manufacturer re the methods of the Toronto daily papers in charging manufacturers for notices of their exhibits shown at the Toronto Industrial Exhibition. We heartily hope that this practise may be stopped."

Messrs. Tolton Bros. manufacturers of agricultural implements, Guelph, Ont. "We are much pleased with your editorials in the Canadian Manufacturer referring to the manner in which the manufacturers exhibiting at the Toronto Industrial are treated by the press of that city. We have long felt just what you express, and have wondered why the evil had not been abated. We are glad that you have taken up the matter, which we consider a very timely one, and hope you may be successful in removing this prevailing evil."

W. Doherty & Co., organ manufacturers, Clinton, Ont. "We regret to have to state that the Empire, Globe and Mail will not mention our exhibit at the Toronto Industrial Fair without pay. This is not as it should be, and we hope they will take a broader view of a matter of so much interest to the public."

Macdonald Manufacturing Company, Toronto, manufacturers of decorated tinware. "Since my conversation with you to-day I have learned that we have been awarded a silver medal for our exhibit, which is the highest award that any manufacturer can obtain from the Toronto Industrial Exhibi-

tion, which shows that our exhibit must have been first-class, and yet it never received a word of mention from the Toronto press."

B. J. Nash & Co., manufacturers of carriages, hearses, etc.: London, Ont. "We quite agree with you as to the injustice and annoyance done the exhibiting manufacturers from year to year at the Toronto Industrial Exhibition by the daily papers of that city. We trust that you will be able, through the medium of the Canadian Manufacturer, to have the matter remedied. If we spoke as we feel we would express ourselves very strongly in the matter, but this will be sufficient to express our opinion."

#### EDITORIAL NOTES.

The iron and steel manufacturers of Pittsburg have won a victory over the men in the wage disputes, and the idle sheet mills will re-sume work. These affairs give workmen an object lesson in the effect of the tariff on wages. —*The Globe*.

Right you are. The working men in the United States are now receiving object lessons in the effect of the tariff on wages which they will not soon forget. As a result of the teachings of the free traders, the workmen in that country last year were seduced into abandoning the political party that for thirty years had been their friends, and made Mr. Cleveland president. Mr. Cleveland promised to do all he could to institute free trade and demolish protection, a result of which was to disorganize trade, close workshops and factories, and throw thousands of workmen into idleness. If iron and steel are to be put in the free list the proprietors of iron

and steel works in the United States can only hope to save themselves from ruin by selling iron and steel at European prices: and to do this they can only afford to pay European prices for labor. American workmen have only themselves to thank for the situation. Their hope for the old time wages lies entirely in the restoration of the old time policy of protection.

At the dinner of the Congregational Club at the St. Denis hotel, in New York, a few nights ago, Andrew Carnegie, in a speech, said that wealth was divinely given to men, but he neglected to say that the the Almighty favored the employment of Pinkerton sharpshooters to keep down wages at Braddock and at Homestead. Evidently Mr. Carnegie thinks that the Deity exercises a commendable discrimination.—*The Empire*.

Are there none interested in the National Policy, or in the manufacturing interest of Canada, or in Canadian manufacturers who will call off the Empire from the expressions of such mischievous nonsense? These interests are being most awfully slaughtered in the house of their so-called friend. Will the Empire kindly state what Mr. Carnegie did at Homestead more than to protect his property and the lives of his employes from the murderous assault of an infuriated mob of lawbreakers whose only aim was to destroy life and property. Mr. Carnegie had a moral and legal right to protect and defend his property, and also to protect the lives of those in his employ, and the question of wages was not involved in the transaction. In its hatred of Mr. Carnegie and of the United States the Empire is doing all it can to pull down and de

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C. W. TAYLOR, Business Manager "Globe,"

TORONTO

molish the fabric of protection of which it professes to be an ardent supporter. Why don't the proprietors of the paper retire the school boy editor and substitute friends who are men and who possess reasoning powers?

Trade editions of city and suburban papers is now a fad that depletes the pockets of credulous simpletons and enables the cute publisher to rake off shekels for their personal gain. The inducement to put good money into these rat holes is that the greatness, grandeur and possibilities of the write up town may be made known to the world; and a noticeable feature of the fakes are that the so called illustrations are usually and chiefly of reeves, deputy reeves, town constables, hostlers and such hangers on as may succeed in getting within the focus of the kodaks of the newspaper fakirs who happen to be working the fake. Sometimes the illustrations are of the residences of the gentlemen whose portraits are shown, and of the stores hotels and horse stables of those who are willing to assume the cost at so much per line for the write up, all very much after the style and manner in which the Toronto daily papers work their fakes at the Toronto Fair. Of course the municipal authorities of the cities, towns, villages and settlements written up and illustrated in these so-called trade editions have to come down handsomely in payment for the glory, renown and prominence supposed to be given their localities; and the aforesaid authorities feel, of course, that the pictures would be incomplete without their portraits being conspicuous therein, and also their residences, stores, barns and outhouses, all of the space occupied being paid for at so much per space or per line; and while it is possible that pictures of some

of the local factories may also be shown, it is noticeable that manufacturers do not as a general thing attach much importance to the opportunities thus offered them to perpetuate the remembrances of their establishments in such history. In fact these write up notices and trade editions are nothing less than bold fakes which advertise the fact that the papers in which they are published are in financial straits, and that those who contribute to the snide fakes are exceedingly verdant. That sort of advertising does not pay.

A writer in an American contemporary has an excellent letter regarding "cheap imitations," some of the facts of which are worth noticing. Having alluded to the general disposition of a large majority of people to imitate, and of a small minority to be leaders, and how the more unworthy spirit frequently leads to cheap imitations, that is, to producing machinery and other articles having the general appearance of things well known as possessing decided merit and novelty, but deficient in important particulars, so made as to deceive, he tells of having seen a machine tool the inscription upon which intimated that it was the product of a large established and well known works. Closer examination proved, however, that the shops in which the tool was actually built, and those where it was supposed to have been built, were several hundred miles apart, and no business connection whatever existed between them. In these days of fierce business competition such events are of constant occurrence. Unless there be some infringement upon a patent there is no law preventing an unscrupulous man producing cheap imitations of standard articles. A manufacturer with a long

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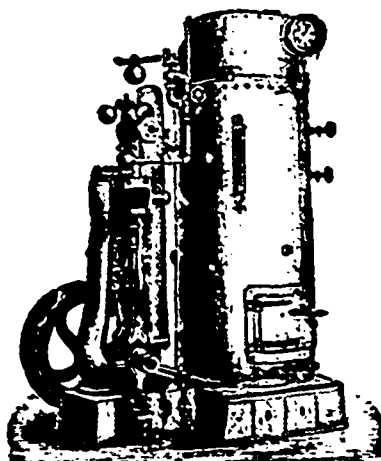
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established and well earned reputation, built up upon the production of some special type of machine or engine, and who, because of the care and labor bestowed upon the production of the article, cannot afford to sell it at less than a certain price, often finds himself handicapped by the competition of an unscrupulous manufacturer who is offering a spurious machine, possessing many points of resemblance to his own, but deficient in vital particulars. Canadian manufacturers are to a large degree exempt from such annoyance, and this because the National Policy wall protects them from the unfair competition of snide foreign goods. Without such protection cheap imitations of standard foreign goods would demoralize the home market, our manufacturers as well as consumers being the sufferers. Hence the necessity for a protective tariff embodying the features of specific duties.

The general plan of burning pulverized coal is rather a seductive one, and numberless attempts have been made for years past to make it yield those advantages—principally that of economy—which its advocates have claimed it to possess. Cassier's Magazine says the North German Lloyd steamers use it about as follows: In front and above the fire door of the furnace a large iron bucket is fixed, large enough to contain from one to two hundred weights of coal dust. From this bucket the dust falls through an iron pipe on a sieve, which is made to let through a smaller or larger quantity of the dust as desired. From this adjustable sieve the dust passes over some iron bars, arranged so as to form little gullies or furrows, on to iron plates fixed in a sloping position in the interior of the furnace. Toward these a powerful blast of

air is directed, which catches the coal dust as it falls from the iron plates, and spreads it through the whole of the furnace. The fire must, however, be started in the old way. Some of the drawbacks are the necessity of using an enormous excess of air in the blast, which is required to carry the powdered coal into and through the heating chamber, thus unavoidably cooling it and producing in it a cutting or wasting flame. And the ash particles which, however minute, are combustible and are distributed broadcast over the furnace, usually to great disadvantage.

The recent seventh annual banquet of the Canadian Stationary Engineers, which was a most gratifying success, demonstrated the fact that this body of men is not only rapidly increasing in numbers, but also in influence. Many neighboring cities and towns were represented in the more than two hundred guests who assembled on the festive occasion; and an observer could not but be impressed with the intelligence and solidity of this body of men. They are not of those who are often met on the streets, for their places of duty are in the engine-rooms and about the boilers and power plants of the great hives of manufacturing industry, which are so essential to the prosperity of the country. They are the men who stand at the throttle and control and regulate the energy that drives machinery and supplies motive power to industrial establishments where occupation is given to so many men and women who toil for their bread. Time was when it was considered that any man who could shovel fuel into a furnace and handle a starting bar was good enough to be an engineer. Time is when not only educated intelligence

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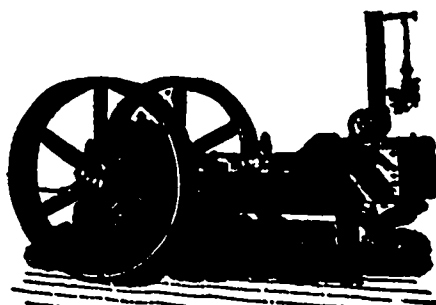
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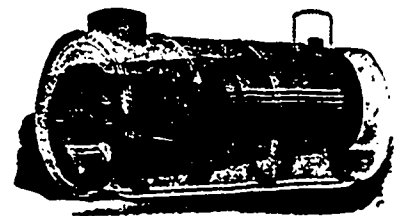
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is absolutely requisite for such positions, but also high moral character. The recognition of these requirements has been forced more by the engineers themselves than from any outside pressure. Themselves recognizing the importance and responsibility of their positions, they have steadily pressed for the elevation of the standard of qualification of their guild, until they have succeeded in obtaining a recognition from all classes of business men not less deserved than flattering. An object this Association has in view is the procurement of laws requiring that all stationary boilers be frequently inspected by competent examiners, and that no man be permitted to act as a stationary engineer until he has been licensed so to act by some recognized authority. The desirability of such laws, in the interest of the whole community, is self evident.

SPEAKING of late reports from Washington to the effect that the new revenue bill then being considered by the Ways and Means Committee of the House of Representatives would provide for the imposition of an income tax which would net a revenue of \$50,000,000, the Empire says: "It is remarkable, if not extraordinary, to read of a Republican Government which has grown to phenomenal power through drastic protection, adopting direct taxation as a means of raising revenue." It is conceded even among amateur journalists and callow editors that it is no disgrace for a Government, or even a nation, to strive to attain greatness and power, and that any policy which contributes to or effects that end, so long as it is honorable, is good. A drastic policy, like drastic medicine, may be necessary in emergencies, but is not salubrious as a

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regular diet. If the protective policy of the United States has eventuated in a phenomenal growth to greatness and power, it cannot be considered drastic medicine, but very nutritious and nourishing food. But why should the Empire seek to throw discredit upon the protective policy of the United States by stigmatizing it as being "drastic," while the very air our National Policy breathes is pumped into it by those who claim that similar protection is vital and necessary to the welfare of Canada? There is no difference whatever in the protective systems of the two countries. There may be some differences in the methods of application, but not in the theory or ethics of the policy. Thus, according to the Empire, it is "drastic" for the McKinley tariff to impose a duty of but \$10 per ton upon refined sugar going into the United States, but not drastic, but rather nutritious and healthful to impose a duty of \$16 per ton upon refined sugar coming into Canada. It is drastic for the Yankees to pay a bonus of two cents per pound upon the production of sugar made from beets grown in the United States, thus encouraging the farmers there to produce the beets, but it is wholesome for the Canadian Government to refuse to offer any such inducement to Canadian farmers. The school boy editor of the Empire should study the object lessons constantly being presented before him.

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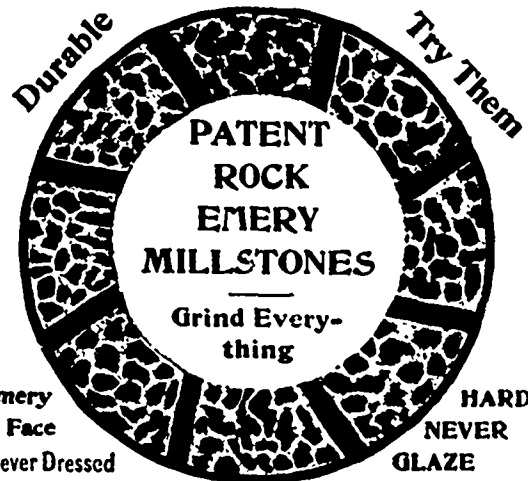
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The illustrated articles are an important feature in the December Popular Science Monthly. The number opens with an account by President Jordan, of the behavior of a South Sea monkey in the various surroundings of human civilization. It is called The Story of Bob, and is a delightful mixture of scientific observation and comical incident. The Modern War Vessels of the United States Navy are described by W. A. Dohson, their means of defense and offense being fully explained. The article is illustrated with views of the cruiser New York, the monitor Miantonomoh, and other typical vessels. Another copiously illustrated article is The Fruit Industry in California, by Charles Howard Shinn, the pictures comprising views of orchards, specimen trees, and branches of fruit. Prof. Huxley's Romanes lecture on Evolution and Ethics is concluded in this number, and is followed by a critical letter from Robert Mathews. This lecture also furnishes Leslie Stephen with a text for a discussion of Ethics and the Struggle for Existence. Prof. Warren Upham tells what answers are given to the question How Old is the Earth? Sir Daniel Wilson is the subject of the usual Portrait and Sketch, the latter being furnished by Horatio Hale. Other articles are State Interference in Social Affairs; and the Essays of Jean Rey, by MM. L. A. Hallopeau and Alb. Poisson. Subjects suggested by the closing days of the World's Fair receive editorial comment, and the other departments contain their usual quota of minor scientific items. New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

The Canadian Trade Review, comes to us in a greatly improved form and make up, and presents a highly creditable appearance. The number now before us contains forty pages, which are devoted to editorial articles, a summary of passing events, the general markets and a goodly show of advertisements. Its enlarged form has involved the necessity of a new dress, which is very becoming and presents a very pleasing appearance.

Godey's Magazine for December, is a most attractive number. Theodora B. Wilson has the complete story. It is called "Love Conquers," and is vigorous, healthy, and strong. The illustrations are by Florence K. Upton. Rose Coghlan writes about Personal Requisites of the Stage, an article which all who are interested in the modern drama should read; that popular and graceful writer, Margaret Lemon, tells about "A Flying Trip To Florida." Florence Hull has a charming short story called "Apple Blossoms;" Olive Thorne Miller writes about "The Dove's Doings," and the poems are by Frank Demster Sherman, Ednah Proctor Clarke, Edward W.

Barnard and others. All the departments are up to their standards and the two exquisite water-color portraits are of Mrs. John Bloodgood, Jr., and Miss Angelica Schuyler Crosby, of New York.

In the Artists' Exhibition of 1893 at the New York Academy of Design, there was exhibited an oil-painting by J. L. G. Ferris, entitled "Sweet Charity." Its richness of coloring commanded instant attention, while the lesson it taught was so impressive that one naturally returned to it for a second view. Its subject is a young lady of colonial times who is on an errand to one of the poorer families of the town. She has a sensible, charming face, which expresses with remarkable fidelity the sentiment of her errand. There is not a home that this charming picture will not ornament. It must be seen to be appreciated. "Sweet Charity" was purchased by the Publishers of The Youth's Companion, and has been reproduced in colors in large size, 14x21. It will be sent to all new subscribers to The Companion who send \$1.75 for a year's subscription, and the paper will also be sent free from the time the subscription is received, to January, 1894, and for a full year from that date, to January, 1895. This offer includes the Double Souvenir Numbers published at Thanksgiving, Christmas and New Year's. Address, The Youth's Companion, Boston, Mass.

The Christmas number of Scribner's Magazine contains five short stories of unusual beauty in sentiment, especially chosen for their appropriateness to the Christmas season. The authors are Robert Grant, Thomas Nelson Page, Henry van Dyke, Edith Wharton, and Herbert D. Ward. There is in addition a hitherto unpublished work of fiction by Sir Walter Scott, which is here printed by arrangement with Mrs. Maxwell Scott, and introduced and edited by Andrew Lang. The poetry of the number represents an equally notable list of authors including Thomas Bailey Aldrich, Richard Henry Stoddard, Edith M. Thomas, Duncan Campbell Scott, and Graham R. Tomson. The illustrations represent the best work of eminent artists, including J. R. Weguelin, Edwin Lord Weeks, F. S. Church, Howard Pyle, A. B. Frost, and Irving R. Wiles. A novelty in magazine illustration is sixteen pages of exquisite half-toned reproductions of the Della Robbia sculptures, printed in tint to suggest the delicate material of the Robbia work. Another unusual feature is the music of a Song by Gilchrist, entitled "January and May," which is decorated and illustrated by Howard Pyle. Altogether the number represents a striking list of contributors, and great richness of illustration, there being twenty full pages and forty text pictures.

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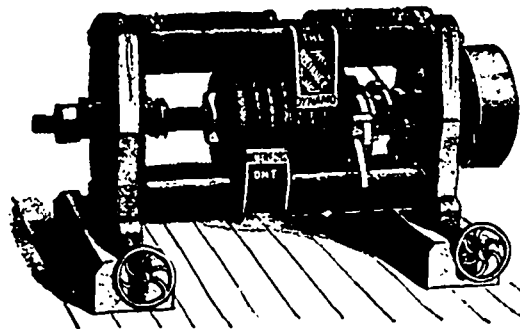
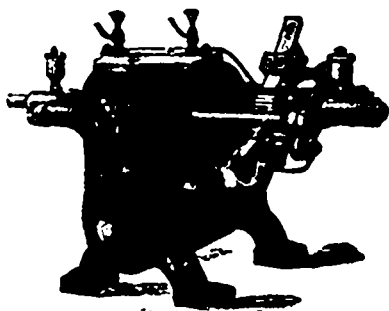
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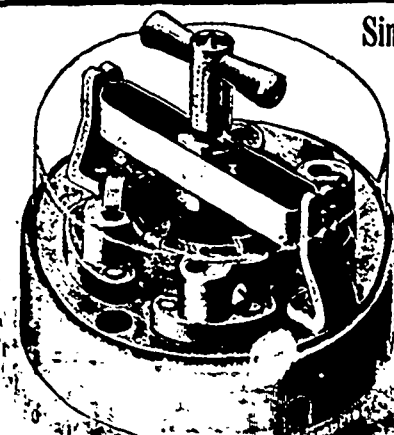
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For Sale by the Canadian General Electric Co., Toronto.

The Copp-Clark Company, Toronto, have favored us with a copy of their Canadian Almanac for 1894. It contains many special features which make it exceedingly valuable. A list of all the Post Offices in Canada is given, with the railroad on which located or nearest railway station, thus forming a Gazetteer of the Dominion. A most interesting article on "The Flag of our Country," written by a retired naval officer, tells us all about the flag and arms of the Dominion; explains why only the arms of the four Provinces of Ontario, Quebec, Nova Scotia and New Brunswick appear on the Canadian Flag; and supplies just the knowledge that every Canadian should have of his country's national emblem. The House of Commons, politically divided, will be found invaluable to every one interested in Dominion affairs. The Directory of Clergy, Barristers, Banks, Municipalities, Government officials, Societies, etc., has been carefully revised up to date. The want which this almanac fills could not be supplied by any less complete work, and it has become invaluable to all men engaged in business or in any way connected with public life. It is a mine of information regarding the Dominion, and contains in compressed form those facts a knowledge of which every business man stands continually in need, but with which he cannot be expected to burden his memory.

The most popular little boy character ever created in a story "Little Lord Fauntleroy," lives again in the Christmas Ladies' Home Journal. But this time Mrs. Frances Hodgson Burnett begins to tell "How Fauntleroy Really Occurred," while Mr. Birch sketches Fauntleroy in his inimitable pictures. Frank R. Stockton, gives us his most delightful character "Pomona," in a deliciously funny way. William Dean Howells begins his literary autobiography which he happily calls "My Literary Passions," and tells of the reading of his boyhood in his father's house. George W. Childs is likewise autobiographical in a brief narrative of "My Christmas as a Boy."

The full piano score of Sousa's new "Manhattan Beach March" is given exclusively in this issue of the Journal, and has all the spirit of his famous "High School Cadets," and "Washington Post" marches. Mrs. A. D. T. Whitney writes the first of a series of "Friendly Letters to My Girl Friends." Julia Magruder begins a serial, "A Beautiful Alien," with superb illustrations by A. B. Wenzell. The humorous "Bob Burdette" is very funny in his description of "My Christmas Shopping"; the Rev. T. De Witt Talmage prophesies "This Christmas in America" based upon the present financial stringency; the Christmas Ladies' Home Journal is the best this magazine has ever sent out. It is certainly an ideal woman's magazine. The Journal is published in Philadelphia at One Dollar per year by The Curtis Publishing Company.

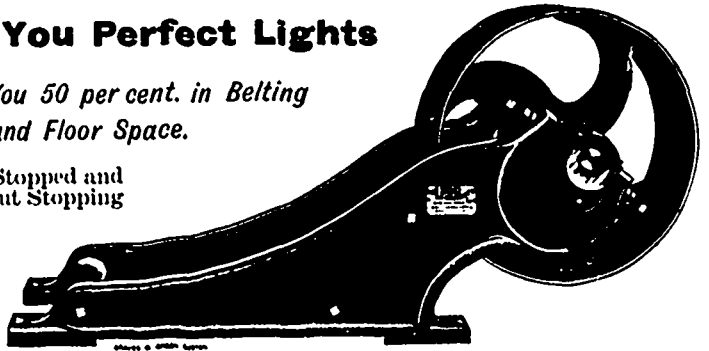
## L. P. D. TRANSMITTER FOR DRIVING DYNAMOS

Will Give You Perfect Lights

Will Save You 50 per cent. in Belting  
and Floor Space.

Dynamo can be Stopped and  
Started without Stopping  
Engine.

It is used by some  
of the largest com-  
panies in Canada and  
the States.



**DARLING BROS., Reliance Works, Montreal**  
Sole Makers for Canada.

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ALL GRADES

IN LUMP, OR FINELY BOLTED, AND VERY DRY.

**English Cliffstone**

**PARIS WHITE**

"WESTMINSTER" Brand

ALSO IN LUMP OR FINELY BOLTED.

We are the Largest Manufacturers of these Goods in the United States and they are

**Standard in Quality**

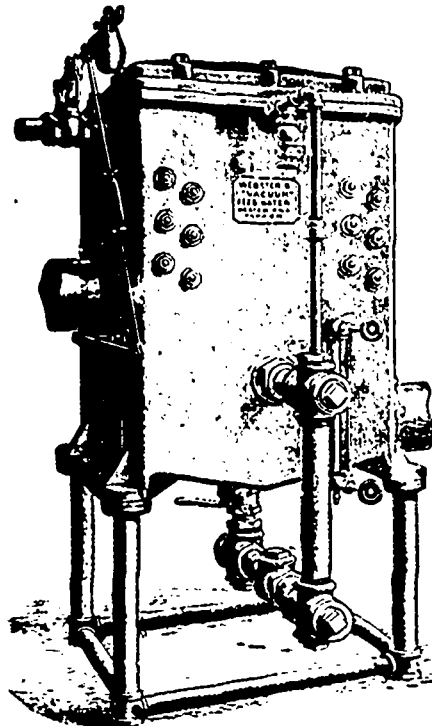
We give SPECIAL ATTENTION to the preparation of a BOLTED WHITTING for use of Rubber manufacturers, and to Compounds for the Covering of Electric Wires.

Shall be pleased to send Quotations and Samples when desired.

**The H. F. TAINTOR MFG. CO., 281 Pearl St., New York**

**THE WEBSTER VACUUM FEED-WATER HEATER AND PURIFIER.**

This apparatus, as shown herewith, is designed to utilize the heat of exhaust steam economically, and may serve either as a feed water heater and purifier, or for obtaining hot and purified water for manufacturing purposes. In the vacuum heater and purifier the exhaust steam is admitted into a chamber sealed from the atmosphere, in which it is brought in direct contact with an extended surface of water, by which it is promptly condensed, and its heat units immediately absorbed. This rapid condensation accelerates the influx of the exhaust steam, and reduces the pressure in the exhaust pipe 10 per cent. as compared with exhausting free to the atmosphere, when heater is not in operation.



The construction and operation of this heater will be readily understood from the following description, reference being made to cut with broken section.

It consists of a closed iron shell with double inclined bottom, and provided with an inlet pipe, each for exhaust steam and for the cold water (the supply of the latter being automatically controlled by a gravity regulator, connected with lever, which operates the valve), and an outlet pipe leading to the feed pump. From which the hot and purified water is de-

livered either to a tank or to the boilers.

The casing contains a series of oppositely inclined perforated copper trays, which spread the water over an extended surface, and bring it in contact with the exhaust steam so as to effect prompt condensation. The feed water, together with the condensation, both having a temperature within two degrees of the steam, collects at the bottom of the chamber and flows through the suction pipe to pump.

A partition or hood continued entirely across the chamber, and whose lower end extends beneath the surface of the accumulated feed water, effectually excludes any scum and grease from reaching the pump. The light impurities float upon the surface of the water in the main chamber, and may be drawn off from time to time by the overflow pipe, which is connected to drain.

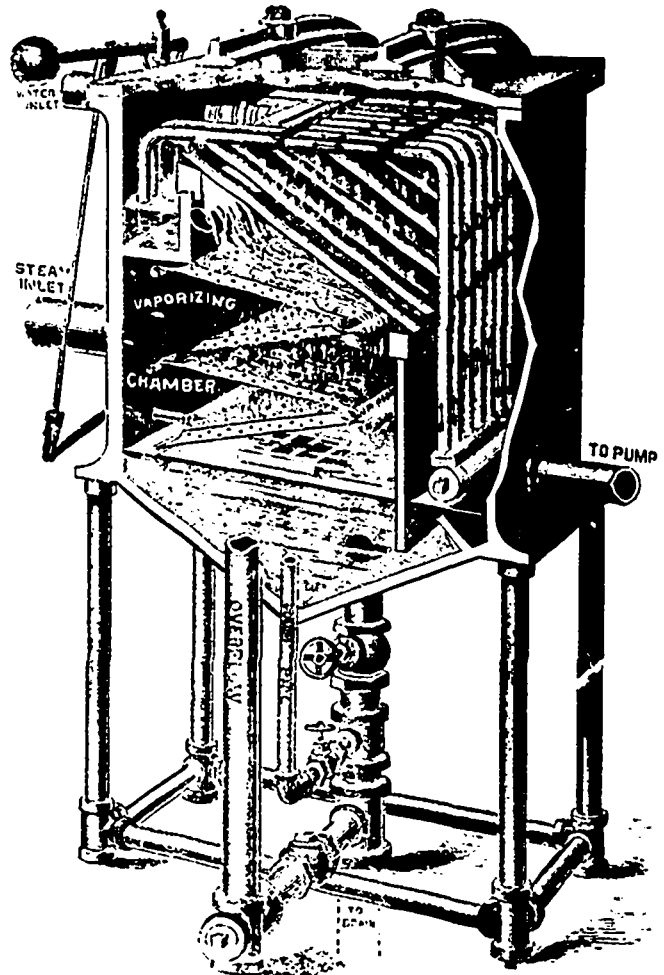
The following advantages in brief are claimed for the vacuum feed-water heater and purifier:

Twenty-five per cent. more water can be heated and purified with a given quantity of exhaust steam, and to a higher temperature than can be obtained by any pressure coil or tubular heater.

The condensation from drying and heating coils can be returned to the heater and pumped back to the boiler.

There is no wear, simply the circulation of entering water and steam, and no possibility of leaks, as there is no pressure in this heater.

The saving in feed water will amount to 20 per cent., as the exhaust steam is liquified and returned to the boiler.



A saving in fuel, by feeding the boiler with purified water at a temperature within two degrees of exhaust steam.

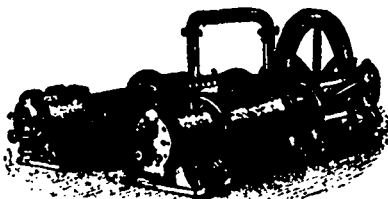
It also obviates the necessity of compounds, and cost incident to the expansion and contraction of the boilers, due to the low temperature of feed water.

The Webster heater is claimed to be the largest heater used at the World's Fair, supplying feed water to 1,000 h.p., heating and purifying 60 tons of feed water per hour.

The aggregate h.p. installed is 350,000, embracing many of the leading plants in the world.

Messrs. Darling Bros., Montreal, will give further information on application.

**The Canadian Rand Drill Co., SHERBROOKE, QUE.**



**AIR COMPRESSORS**

Of the Most Efficient and Economical Type—Straight Line, Duplex, Compound, and Condensing.

**THE RAND "SLUGGER" and "GIANT" AIR DRILLS**

**For Mines and Quarry Work.**

SEND FOR CATALOGUE.

16 VICTORIA SQUARE, MONTREAL; HALIFAX HOTEL, HALIFAX, N.S.

Duplex Compound Steam Air Compressor with Halsey's Mechanical Valves.

AGENCIES :

632 CORDOVA STREET, VICTORIA, B.C.

If contemplating transmission of power any considerable distance write to us for estimates

# Inventions.

## CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from October 27 to November 7, 1893, inclusive.

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

### MECHANICAL.

- 44,575 Spindle-shaped ocean steamer, W. L. Winans, October 27th.  
 44,576 Eyelet, A. Matheson, October 27th.  
 44,577 Producing metal barrel bodies, or other articles of bent form, T. C. Barraclough and T. P. Heaton, October 27th.  
 44,578 Car coupling, J. A. Markley, October 27th.  
 44,579 Horse shoe, C. B. Hulbert, October 27th.  
 44,580 Harrow, C. LaDow, October 27th.  
 44,581 Dental set, T. H. Graham, October 27th.  
 44,582 Car coupler, E. W. Seitz, October 27th.  
 44,583 Circular knitting machine, H. A. Houseman, October 27th.  
 44,584 Paper box for the carriage of eggs, A. L. Reeves, Jr., October 27th.  
 44,585 Hand truck, N. A. Week and H. J. Moen, October 27th.  
 44,587 Slate cleaner, W. Murphy, October 27th.  
 44,587 Land anchor, J. Stombaugh, October 28th.  
 44,588 Car coupling, J. B. Riddle, October 28th.  
 44,589 Radiator case, H. H. Welker, October 28th.  
 44,590 Hay and stock rack, G. E. Schairer, October 28th.  
 44,591 Pipe wrench, J. A. Smith, October 28th.  
 44,592 Metal fabric tool, S. S. Casey, October 28th.  
 44,593 Color printing press, H. E. Grandy, October 30th.  
 44,594 Napkin and paper holder, C. C. Scott, October 30th.  
 44,595 Fifth wheel, A. H. Worrest, November 2nd.  
 44,597 Grave vault, A. N. Hult and W. Henry, November 2nd.  
 44,598 Axle box, A. H. Sensenig and S. W. Horst, November 2nd.  
 44,599 Warming pan, J. Barton and D. Edgar, November 2nd.  
 44,600 Temporary binder, F. D. Hastings et al, November 2nd.  
 44,601 Workman's Time Recorder, A. L. Jaynes and J. H. Ball, November 2nd.

## FETHERSTONHAUGH & CO.

Patent Barristers and Solicitors,  
 Electrical and Mechanical Experts  
 and Draughtsmen

# PATENTS

Procured in Canada and all  
 Foreign Countries

Counsel Work Undertaken in Patent Causes.  
 Patent Suits Prosecuted before the Courts.  
 Validity and Infringements of Patents Investigated.  
 Searches made. Assignments and Agreements  
 Drawn. Advice on Patent Laws, etc.

Head Office, Canadian Bank of Commerce Bldg., Toronto  
 TELEPHONE 2589

CABLE ADDRESS "INVENTION, TORONTO."

- 44,602 Pipe elbow, O. H. Lawrence, November 2nd.  
 44,603 Pipe bending machine, O. H. Lawrence and E. M. Letts  
 November 2nd.  
 44,607 Damper regulating apparatus for steam furnaces, P. St.  
 Mary, November 3rd.  
 44,608 Rotary press, F. L. H. Sims, November 3rd.  
 44,609 Separable adjustable collar coupler, J. Jones and J.  
 Sussex, November 3rd.  
 44,610 Machine for slicing fruit, S. S. Arnold, November 3rd.  
 44,611 Process for producing motive work from the combustion  
 of fuel, A. Dieckel, November 3rd.  
 44,612 Covers for jars and other vessels, T. E. Ogeam, November  
 3rd.  
 44,613 Manufacture of matches, C. M. Bowman, November 3rd.  
 44,614 Magazine fire arms, O. H. J. Krag and E. Jorgenson,  
 November 3rd.  
 44,615 Continuous kiln, M. A. T. Brehuecke, November 3rd.  
 44,616 Bridle bit, G. S. Parsons, November 3rd.  
 44,617 Tightening wheel tire, W. T. Mackey, November 3rd.  
 44,618 Car coupling, L. B. Kenney, November 3rd.  
 44,619 Stays for dresses and other garments, F. W. Lyon, No-  
 vember 3rd.

## SOLICITOR OF PATENTS

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Patents, Trade Marks, Industrial Designs, Caveats, etc., for  
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 Hydraulic Engineering a specialty.

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**Years of Experience** and a **Growing  
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 of Accountants' work. A card will bring us  
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Established 1881 with Twenty Years Professional Experience in  
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## A. HARVEY, C.E. PATENT ATTORNEY

OTTAWA, CAN.

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G. de G. LANGUEDOC,

PATENT SOLICITOR  
 CIVIL ENGINEER AND ARCHITECT

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 Architects of the Province of Quebec.

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 WOONSOCKET, R.I.

MANUFACTURERS OF

Power and  
 Hand Loom  
**SHUTTLES**



OF EVERY DESCRIPTION.

Write Us.

- 44,020 Covering substances or materials for wall papers, paper hangings, etc., J. Walker and H. Carver, November 3rd.
- 44,022 Dredging machine, W. Brooks, November 3rd.
- 44,023 Facilitating the opening of oysters, F. L. Wauklyn, November 3rd.
- 44,024 Buckle, G. M. Aylsworth, November 3rd.
- 44,025 Smokeless furnace, J. V. Burke, November 3rd.
- 44,026 Life raft, G. B. Hersey, November 3rd.
- 44,027 Coffee steeper, G. E. Overman, November 3rd.
- 44,028 Wire reel, J. W. Buchanan, November 3rd.
- 44,029 Loom shuttle, S. M. Hamblin and E. S. Damon, November 4th.
- 44,030 Forming horse shoe blanks, J. D. Billings, et al, November 4th.
- 44,031 Spike, W. R. Funk, et al, November 4th.
- 44,033 Line bar ring for harness, M. C. Flack et al, November 4th.
- 44,034 Stringed musical hand instrument, J. S. Back and G. L. Orne, November 4th.
- 44,035 Shoe tip or toe protector, The American Shoe Tip Co., November 4th.
- 44,036 Method of preparing substitutes for coffee, H. Trillich, November 7th.
- 44,037 Preserving food, H. L. C. Paulsen, November 7th.
- 44,038 Non-conducting covering, R. H. Martin, November 7th.
- 44,039 Bicycle, F. Wiechard, November 7th.
- 44,040 Corset, F. M. Meyer, November 7th.

- 44,041 Gas cooking stove, W. F. A. Kollo, November 7th.
  - 44,042 Chained ring holder for horses and other animals, J. W. Ziellenbach, November 7th.
  - 44,043 Fire bar, C. Mohring, November 7th.
  - 44,044 Hooks and eyes, H. Mentzel, November 7th.
  - 44,045 Producing peat briquettes, E. Stauber, November 7th.
  - 44,046 Ice cream freezer, J. Foster, November 7th.
- SCIENTIFIC PROCESSES.
- 44,596 Resist mordant for plain dyed fabrics, W. T. Whitehead and H. D. Dupree, November 2nd.
  - 44,604 Aniline black discharge, W. F. Whitehead and H. D. Dupree, November 2nd.
  - 44,605 Aniline black resist, W. F. Whitehead and H. D. Dupree, November 2nd.
  - 44,621 Extracting gold and silver from ores and the like, J. S. MacArthur and C. J. Ellis, November 3rd.
- ELECTRICAL.
- 44,606 Telephone, The Bell Telephone Co., of Canada, November 3rd.
  - 44,632 Electrode for arc lamps, A. C. Seibold et al, Nov. 4th.

## SAMUEL FUGE

436 Richmond Street, London, Ont.

Sole Agent for Canada and the United States for JOHN C. TAYLOR & CO.'S, Ltd., BRISTOL, ENGLAND, LIQUID ANTI-SCALE

## VEGETABLE BOILER COMPOSITION

For the prevention and removal of Incrustation, Corrosion, and Pitting; also for Preserving the Plates, and for Preventing Leakage.

**OBSERVE THE FOLLOWING:**

THE CONSUMERS OIL REFINING Co.,  
PETROLEA, ONT., August 22, 1893.

Mr. S. Fuge,  
LONDON, ONT.

DEAR SIR,—Replying to your letter of the 18th inst., we would say that the drum of "Anti-Scale" which we purchased from you gave us good satisfaction. We have found it very efficient in removing the scale, and keeping the boiler clean, without injury to the steel.

Yours truly,  
THE CONSUMERS OIL REFINING Co.,  
(Signed), T. Wolfe, Manager.

## FOUNDRY FACINGS

**Core Compound, Ceylon Plumbago, Foundry Supplies and Moulding Sand**

Canadian Agents for

**Root's Positive Blower  
Colliau Cupola Furnace**

**HAMILTON FACING MILL CO., Hamilton, Ont.  
Montreal Agents, DARLING BROS.**

**Caustic and Silicate Soda, Glues,  
Imported and Canadian Cotton  
Waste and Oakum**

**M. & L. SAMUEL, BENJAMIN and CO.**

20 Front Street West, Toronto

**ENGLISH HOUSE:**  
64 FENCHURCH ST., LONDON, E.C.

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### SOMETHING NEW

**THE COAL SAVING AND SMOKE CONSUMING COMPANY, LTD**

TRADE MARK

S. C. CO. **394** COMPOUND

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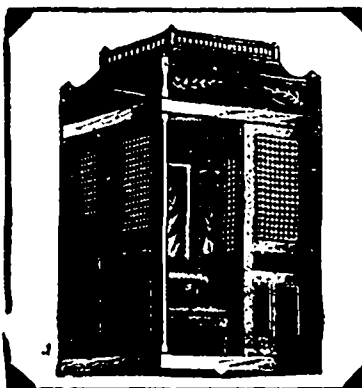
Saves from 15 to 40 per cent. in

**FUEL ALONE**

**No Smoke! No Gas! No Clinkers! No Change in Furnaces,  
Grates or Machinery! Preserves Iron! Purely Chemical!**

Endorsed by the highest Chemical authorities at Cornell University, New York. A Boon to Manufacturers. Gets up Steam in one fourth the time; keeps it with Dampers and Ash Pit Doors closed. Send for particulars.

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# ELEVATORS

**FENSOM ELEVATOR  
WORKS  
52-54-56 DUKE ST  
TORONTO.**

**ELECTRIC HYDRAULIC  
STEAM & HAND-POWER  
PASSENGER & GOODS  
ELEVATORS. DUMB WAITERS**

## Captains of Industry.

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

Messrs. McLaren & Morrison, of Vankleek Hill, Ont., are building a sawmill at St. Eustain, Que., and have purchased their sawmill machinery, engine and boiler from Cowan & Co., of Galt, Ont.

The Canadian ship canal at Sault Ste. Marie, connecting Lakes Superior and Huron, is rapidly approaching completion, and will undoubtedly be opened for navigation next summer. A few days ago Messrs. Ryan & Haney, the contractors, laid the last stone in the lock pit. When it is considered that the stones forming the face of this stupendous structure cost from \$15 to \$30 each, and that they are about 25,000 in number, some idea may be formed of the magnitude of the work. It was gratifying to the contractors to have been enabled to finish the masonry before winter set in. The work was commenced about five years ago, and has been carried on steadily ever since, under the constant supervision of competent Government engineers, every stone being subjected to minute inspection. It will be gratifying to the people of the Dominion to know that next season there will be connection for marine traffic between Lake Superior and our other great lakes by a waterway within Canadian territory.

Messrs. Cossitt Bros., Brockville, Ont., have recently put in a large addition to their foundry, heating it throughout with steam, and adding a lot of new iron tools; and they have also placed a number of new wood working machines, manufactured for them by Cowan & Co., Galt, Ont.

### ECO MAGNETO

## WATCHMAN'S ELECTRIC CLOCK

WITHOUT BATTERIES

Write for Descriptive Circular to

### Eco Magneto Clock Co.

Room 71 - 620 ATLANTIC AVE.

Boston, Mass.

Messrs. Disney & Devlin, Hanover, Ont., have recently put in a 40 h.p. steam engine, manufactured for them by Cowan & Co., Galt, Ont.

The Dominion Smith Co., who have been in business at Sherbrooke, Que., for the past fourteen years, have moved into their new factory at Waterville, Que. Needing larger and more convenient quarters, they have built a substantial three storey brick building, 80 x 40 feet, which is supplied with steam for heating and drying, and with electricity for lighting, and has a good water power. They contemplate adding in the near future one or two new lines to their business of the manufacture of sycamore smiths, children's sleighs, etc.

Mr. D. O'Connor, of Ottawa, is making large additions to his mill, and has placed his order with Cowan & Co., Galt, Ont., for a 70 h.p. engine and boiler, a double surface planer and matcher, and a four-side moulding machine.

William Milne's saw mill at Ethel, Ont., was destroyed by fire Nov. 18, loss about \$2,000.

## EAGLE FOUNDRY | ESTABLISHED 1820

### GEORGE BRUSH

14 to 34 King & Queen Sts., Montreal

MAKER OF

STEAM ENGINES, STEAM BOILERS,

HOISTING ENGINES, STEAM PUMPS

Circular Saw Mills, Bark Mills, Shingle Mills, Ore Crushers,  
Mill Gearing, Shafting Hangers and Pulleys.

Safety Elevators and Hoists for Warehouses, etc.

Heine Safety Steam Boilers.

Blake "Challenge" Stone Breaker.

## Michigan Emery Wheel Company

194 Catherine Street, Detroit, Mich.



Solid Emery

AND

Corundum  
Wheels

To Run Wet or Dry Special Shapes



PERFECTION  
SAW GUMMERS



SEND FOR PRICE LIST

# PULLEYS

MACHINE  
MOULDED  
STEEL RIM  
AND GRIP

Steel Rim Pulleys are practically unbreakable, are lighter and easier on shaft, and cost same as cast pulleys.

ANY STYLE FURNISHED SPLIT

# SHAFTING

TURNED IN ANY LENGTHS UP TO 28 FEET.  
SAVING COUPLINGS. STEEL OR IRON.  
PERFECTLY TRUE AND POLISHED.  
KEY SEALED WHEN DESIRED.

# HANGERS

RING OILING AND RESERVOIR OIL BEARINGS. STANDS FOR BEARINGS. WALL BOXES. SPECIALLY HEAVY PATTERNS FOR ELECTRIC WORK. OUR SPECIAL FACILITIES SECURE YOU LOW PRICES AND PROMPT SHIPMENT.

(BRANTFORD,  
CANADA)

# WATEROUS

Mr. S. K. Kneeland, Tangier, N.S., is now giving employment to twenty or more workmen in his spool factory.

Messrs. Brown & Wigle, Kingsville, Ont., have recently completed a considerable enlargement of their blanket mill.

Messrs. Gilles & Martin, Teeswater, Ont., are making extensive alterations and additions to their foundry, and have placed their order with Cowan & Co., Galt, Ont., for new wood working machinery.

The Lake of the Woods Milling Company will build a barrel factory at Keewatin, N.W.T., the present winter. They have already contracted for the delivery of some 3,000 cords of stave bolts to be used there in the manufacture of flour barrels.

Messrs. W. L. Fagan, James Shaw and others, of Vancouver, B.C., are applying for incorporation as the Fisherman's Canning Company, with capital stock of \$10,000, to erect a fish-canning factory at Port Girichon, B.C.

Mr. John Cober, of Ethel, Ont., manufacturer of carriages, etc., has recently put in a new Cowan & Co.'s planer and matcher.

## We Manufacture Artistic Bank and Office Railings

In all the **New and Antique** Bronze and other Electro-Finisher.

GRILLS, ELEVATOR ENCLOSURES,

WIRE AND IRON FENCING.

STABLE FITTINGS, Etc.

And the Best and Most Complete Line of

Wire Work and Architectural Iron Work  
IN THE DOMINION.

**DENNIS WIRE AND IRON WORKS, LONDON, ONT.**

Send for Illustrated Catalogue.

## The Cant Bros. Co. of Galt, Ltd.

MANUFACTURERS OF

# Wood-Working Machinery

PRINCIPAL GOLD MEDAL, TORONTO EXHIBITION, 1883

"The **Automatic Hollow Square Chisel Morticer** which we bought from you is just the machine for our work. It cleans the mortice out perfectly, and will do it quicker than any other kind of morticer."—*Bain Bros. Wagon Mfg. Co., Brantford.*

"We would state that the **Hollow Square Chisel Morticer** works very well indeed, since changing the gear. We think it is a decided improvement. It works much better in our work than it ever did."—*Patterson & Corbin, Street Car Builders, St. Catharines.*

"We are using a number of your Patent **Wood Split Pulleys**, and are highly pleased with them. They are neat in appearance, strong and durable; and, in our opinion, unsurpassed by any split pulley in the market."—*Clinton Organ Co., Clinton.*

**GALT, ONT.**

The Del Monte Hotel at Preston, Ont., is to be equipped with an electric light plant.

The municipal corporation of Buckingham, Que., will expend \$25,000 more in completing the water works and electric lighting projects now being constructed there.

The Gibbard Furniture Company, Napanee, Ont., have lately put in some new machinery, which they purchased from Cowan & Co., Galt.

The Belt Line Railway Company, Montreal, will erect an elevated road on certain streets of that city.

The John Morrow Machine Screw Co., Ingersoll, Ont., have put a Webster heater and purifier in their works, supplied by Messrs. Darling Bros., Montreal.

The Riverside Manufacturing Company are applying for incorporation, with a capital stock of \$500,000, to erect and operate a cotton factory at Montmorency, Que.

The Plansifter Company, of Canada, are applying for incorporation, with a capital stock of \$10,000, with headquarters at Stratford, Ont., to manufacture Plansifter milling machines. Mr. James Hodd, of Stratford, will be an incorporator.

Mr. A. Eby, of Elmira, Ont., is building a large sawmill. He is getting all his sawmill machinery, engine and boilers from Messrs. Cowan & Co., Galt, Ont.

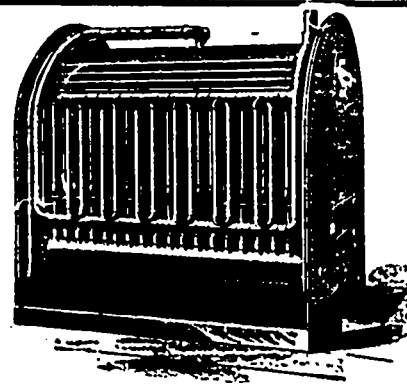
The St. Henri Chemical Company, with head office at Montreal, is being incorporated, with a capital stock of \$50,000, to manufacture acids, alkalis, glycerine, etc. Mr. James Watson, of Hamilton, Ont., who was the first president of the Canadian Manufacturers' Association, is one of the incorporators.

The capital stock of the Toronto Carpet Manufacturing Company has been increased from \$50,000 to \$150,000. Under the management of Mr. James P. Murray, the president, this is one of the most vigorous, enterprising and successful manufacturing concerns in Canada.

Mr. Edmund Leclerc's door and window sash factory at L'Islet, Que., was destroyed by fire Nov. 14, loss about \$5,000.

Messrs. J. Abbott & Co., of Ottawa, whose premises were lately damaged by fire, have placed their order with Cowan & Co., Galt, Ont., for a full outfit of wood working machinery to be used in the manufacture of carriages.

Mr. George Brush, proprietor of the Eagle Foundry, Montreal, which was established in 1820, calls attention to the fact that he makes a specialty of manufacturing the Heine Safety Steam Boiler, so well and favorably known in the United States, and also the Blake Challenge Stone Breaker.



THE

## Finlayson Water Tube Marine Boiler

FOR

YACHTS, LAUNCHES AND OTHER STEAMERS

The most efficient and reliable Water Tube Boiler in the market. Has entirely new features and improvements.  
Send for Illustrated Catalogue of Boilers and Engines

## DOTY ENGINEERING WORKS

DOTY BROS. & CO., Proprietors

15 YORK STREET, Opposite Union Station. TORONTO, ONT.



Messrs. Dobson & Day, Meaford, Ont., have purchased one of Cowan & Co.'s patent revolving bed moulders, to work four sides.

Mr. H. R. Ridout, 22 St. John street, Montreal, are offering to the trade their "Stick Fast" English belt dressing, which they inform us possesses great excellence as a belt preservative, prevents slipping, increases the driving power, is easy of application and is instantaneous in its action. It is in extensive use among steam users in England, Canada and the United States. Mr. Ridout, in his circular, publishes testimony from some of the most prominent manufacturers of Montreal, testifying to the excellence of the article.

Mr. Josiah Fowler, the well-known axe manufacturer of the Maritime Provinces, is adding to the capacity of his works at St. John, N.B., and will include the manufacture of chisels, drawing knives and other beveled tools. Mr. Fowler informs us that in the production of his goods he uses only the best qualities of Thomas Firth & Son's extra cast English steels. There is always a good and steady demand for such goods in this portion of Canada, and as Mr. Fowler is reaching out in this direction for business no doubt he will receive a gratifyingly large share of it.

Mr. Wm. Milne, of Ethel, Ont., whose sawmill was destroyed by fire a short time ago, has made arrangements to rebuild at once, and has placed his order with Cowan & Co., Galt, Ont., for his sawmill machinery, including planer, matcher and moulder.

The Babcock & Wilcox Company, of which Messrs. A. Holden & Co., Montreal, are agents for Canada, have secured the contract of supplying the Montreal Waterworks with water tube steam boilers of 600 horse power. In addition to this large contract the company have filled orders for the Canadian General Electric Company, of Toronto, for 600 horse power, and for the Richelieu Woollen Mills, Chambly, Que., for 200 horse power, as well as several lesser orders for other manufacturers. The company have been much gratified by the commendatory letters they have received from Canadian manufacturers using their boilers.

The Montreal Cold Storage and Freezing Co., Montreal, have bought from Messrs. Darling Bros., that city, 100 h.p. Webster heater and purifier.

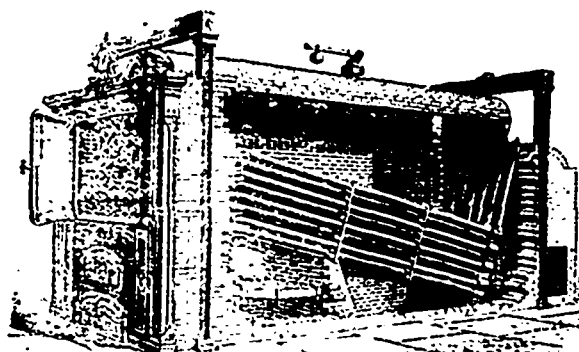
Mr. James Faulkner, of St. Catharines, has moved into his new factory for the manufacture of furniture, and has placed a large order with Messrs. Cowan & Co., of Galt, Ont.

The Toronto Ferry Co. intend making extensive alterations and improvements to their fleet of Island ferry steamers during the coming winter. The Canadian is to be thoroughly rebuilt and strengthened, and the Sadie is to be altered to a double-ended and have new upper works and cabins, also a new double cylinder condensing engine of 200 horse power. Doty Bros. & Co., of this city, have been awarded the contract for the new engine, which will be completed on April 1st next, and will be similar to those supplied by them for the ferry steamers Mayflower and Primrose.

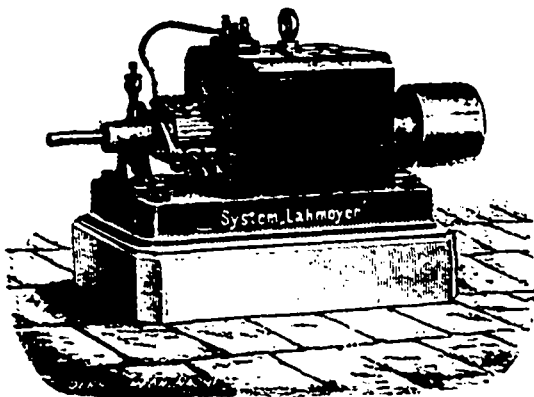
Mr. John Dalton, Deseronto, Ont., has built a furniture factory, into which he has put a lot of machinery purchased from Cowan & Co., Galt, Ont.

It is said that Capt. Robinson, who has several mills on Lake Winnipeg, will consolidate them and build one large mill at Selkirk, on the Red river, to which the logs will be towed from points along the lake.

Mr. H. B. Mitchell will build a large saw mill at Selkirk, Man., this winter.



## AN OPPORTUNITY!



Simplest  
and most  
Efficient.

We have the following **INCANDESCENT DYNAMOS** in stock, which we will sell at greatly reduced prices to close consignment:

One 30 Light  
" 225 " : "LAHMEYER" DYNAMO  
Two 150 "

These machines are **Compound Wound** for 110 volts, and are especially suited for factory use. They are perfectly new and fully guaranteed. The "Lahmeyer" has the reputation of being one of the best Dynamos made in Europe, and are both **Electrically and Mechanically Perfect.**

Manufacturers and others requiring Dynamos of the above sizes will do well to correspond with us before buying elsewhere. Prices given on other sizes, which can be delivered at short notice. We can furnish all supplies at lowest prices. Correspondence solicited.

**JOHN STARR, SON & CO. (Ltd.)**

General Canadian Agents  
"Lahmeyer" Electric Light System,

Illustrated Catalogue on application.

HALIFAX, N.S.

## The Babcock & Wilcox Co.

### WATER TUBE STEAM BOILERS

Now being manufactured in Canada.

Agents for the Dominion

**A. HOLDEN & CO.**

Waddell Building - 30 St. John St., MONTREAL

Send for book "STEAM" free on application.

## The Dominion Cotton Mills Co., Limited

### MAGOG PRINTS

A FULL RANGE OF **Pure Indigo Prints**

... Is now being shown to the Trade.

Ask Wholesale Houses for Samples.

All Goods **GUARANTEED**, and Stamped

"WARRANTED PURE INDIGO."

**D. MORRICE, SONS & CO.,** Selling Agts.

Montreal and Toronto

Messrs. Lundy & Harriman, Niagara Falls, Ont., whose factory was recently destroyed by fire, has placed his order with Cowan & Co., Galt, Ont., for his new wool working machinery.

Alluding to their business card, which may be found in another page of this journal, the Dominion Cotton Mills Company, through their agents, Messrs. D. Morrice, Sons & Co., say that they have made a new departure in the production of the goods mentioned. Heretofore large quantities of these goods have been brought into Canada from Europe and the United States, and to remove this necessity the Dominion Cotton Mills Company have gone to a very heavy expense in erecting buildings, plant, etc., for the manufacture of a pure indigo print, which they are guaranteeing absolutely fast, and every piece being stamped "Warranted Pure Indigo." Already large sales have been made to the wholesale houses for spring delivery, showing that the goods are entirely satisfactory and will easily replace the imported article.

Messrs. J. L. Goodhue & Co., Danville, Que., request attention to the fact that they are in the swim in the manufacture of first class leather belting, and that although the mercury in the thermometer indicates a chilly atmosphere, the weather nor anything else never becomes cold enough to cause them to be left. Manufacturers who purchase leather belting understand what this means.

The Ottawa Brewing and Malting Company, Ottawa, are applying for incorporation, with a capital stock of \$15,000, to conduct a business indicated by the name.

Mr. P. Hogan, Charlottetown, P.E.I., has lately built a new factory for the manufacture of sashes, doors, etc., and has placed his order for the wood working machinery with Cowan & Co., Galt, Ont.

Messrs. James Harris & Co., St. John, N.B., who recently bought the plant of Messrs. S. R. Foster & Sons, that city, will remove the same and make it an addition to their rolling mill plant on the Strait Shore for the manufacture of wire nails.

## Machinists' Fine Tools

Drills, Chucks, Reamers, Etc.

WILEY & RUSSELL  
Screw Cutting

# TOOLS

## RICE LEWIS & SON, Ltd.

TORONTO

## Dominion Wire Manufacturing Company

MONTREAL AND TORONTO.

Wire Drawers, Galvanizers

AND  
MANUFACTURERS OF

**IRON WIRE BRASS  
STEEL WIRE COPPER**

FOR ALL PURPOSES

Also

Steel and Brass Wood Screws, and  
Wire Nails.

Crescent Coat and Hat Hooks, Steel and  
Brass Jack Chain.

2 and 4 POINT BARB and PLAIN TWIST FENCING.

WRITE FOR PRICES AND DISCOUNTS

Messrs. Darling Bros, Montreal, have built within the last two months power elevators for the following parties: E. & C. Gurney Co., Toronto; Breithaupt Leather Co., Listowel, Ont.; James Hall & Co., Brockville, Ont.; Haines & Lockhart, Belleville, Ont.; Dominion Blanket and Fibre Co., Beauharnois, Que.; Dominion Oil Cloth Co., Montreal; George Bishop Engraving Co., Montreal; Montreal Blanket Co., Montreal; and Montmorency Cotton Mills, Quebec.

Mr. J. T. Cutler, Welland, Ont., has lately installed two or three new wood working machines, purchased from Cowan & Co., Galt, Ont.

A lath mill at Hull, Que., belonging to Mr. J. R. Booth, located near his big lumber mill at the Chaudiere Falls, was destroyed by fire Nov. 27th, loss about \$13,000.

The Clifton Suspension Bridge Company, whose bridge now spans the Niagara river gorge at Niagara Falls, are applying for an amendment to their charter, which will allow them to lay tracks upon their bridge and the approaches thereto for the passage of electric cars, and to erect another bridge at or near the present bridge for the purpose indicated.

It was recently announced in these pages that Mr. J. N. Lake, who is president of the Toronto Watch Case Company, of Toronto, was organizing a company to build an inclined railway at Hamilton to the top of the mountain there. Mr. Lake is, or was recently in New York in the interest of his scheme. It is thought that the railway, which will be operated by electricity, will be in operation next summer.

Bracebridge, Ont., will install an electric lighting plant at a cost of \$25,000.

# - BELTING -

Users' can have a copy of J. L. Goodhue's & Co.'s

TELEGRAPH CIPHER CODE

# - FREE -

And by using it will save themselves time and money. Write to

**J. L. GOODHUE & CO,**

Mnfrs. LEATHER BELTING, Danville, Que.

Toronto Office, 85 YORK ST.

## A Pocket-Book for Pharmacists

By Thomas Bailey. Full of valuable tables and memoranda. 125 pages. 2mo. limp roan. English Pharmacopoeia. Mailed free to any address on receipt of 25c.

SPON & CHAMBERLAIN, 12 Cortlandt St., New York

MAGNETIC METAL

# SEPARATORS

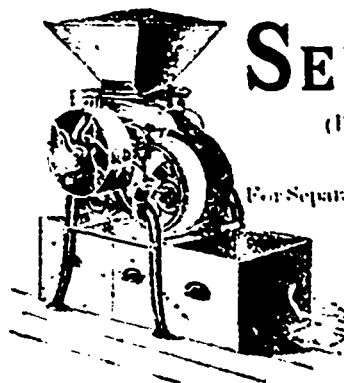
(B. FITT'S PATENT).

For Separating Iron Turnings, Filings, etc.  
from Brass and other metals.

Made in Two Sizes . . .

Price, No. 1, \$135, No. 2, \$225

No. 2 is more than  
double the capacity of No. 1.



Built by

**EZRA SAWYER, WORCESTER, MASS.**

---

# **THE HAWORTH BELTING CO.**

**MANUFACTURERS**

**OFFICE AND FACTORY: 9 AND 11 JORDAN STREET**

**TORONTO**

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Messrs. Cowan & Co. have on hand several Austin patent feed-water heaters, which they have received from Mr. Moffat, the patentee's authorised agent for Canada.

The report has been widely circulated that there is not a dry dock in the United States large enough to accommodate the new U. S. S. New York and as a result she would have to be sent to Europe for dockage. The New York could easily be docked at Halifax, N.S., in the great graving dock built at the joint expense of the Imperial and Dominion Governments, which has 30 feet of water on the sills at ordinary spring tides. The other dimensions of the Halifax dock are: Length, 585 feet, which by a unique contrivance can be increased to 601 feet; width, 80 feet at the entrance, 102 feet at the coping, and 72 feet at the bottom. This dock is the largest on the continent, and capable of receiving the heaviest vessels on North American waters.

Messrs. Humphrey & Trite's saw mill at Petitecodiac, N.B., was destroyed by fire Nov. 16, loss about \$15,000.

Nova Scotia Steel and Forge Co. are adding a large dynamo to their electric plant. Their works are running day and night on increased orders. The recent extensive additions to the plant of this company enable them to reach a much greater output than heretofore.

Mr. Gardiner Boyd, of this city, is making alterations to his steam yacht, Sonag, which will add to both her appearance and speed, and when completed will be one of the finest private yachts on Lake Ontario. The alterations consist of lengthening and raising the hull, and putting in a new compound, surface condensing engine, and a Finlayson water tube boiler to carry 200 lbs. steam pressure. Doty Bros. & Co., of this city, have the contract to supply the new machinery.

Messrs. Ross Bros., Thompson, N.S., have lately put in a large engine and boiler, purchased from Cowan & Co., Galt, Ont.

The Central Prison, Toronto, have lately put in two L. P. & D. transmitters, and a new 100 h.p. Webster Vacuum heater and purifier, which were built for them by Messrs. Darling Bros., Montreal.

The Wrought Iron Range Company, a branch of a large concern doing business at St. Louis, Mo., which was recently established at Toronto Junction, will abandon that place and remove their works to 72 Pearl street, Toronto, giving employment to some 50 men.

The British Columbia Jute and Coopersage Company's factory at Vancouver, B.C., has been totally destroyed by fire, loss about \$30,000. The premises will be rebuilt without delay.

Tenders are being received at the office of A. Armsby Graydon, City Engineer, London, Ont., for an arc electric light plant for that city, including boilers, engines, etc.

Messrs. T. L. Moffatt & Sons, Markdale, Ont., are building an extensive foundry for the manufacture of stoves, etc. They are putting in a 40 h.p. steam engine and boiler, manufactured by Cowan & Co., Galt, Ont.

The new flour mill at Melita, Man., erected by Peter Pawell and John Ferguson, is nearing completion. The mill building is 30 by 18 feet, four stories high. The engine house is 30 by 21 feet, built of solid stone. The building will be lighted with electricity, and the plant generally is claimed to be a very complete one.

The Dominion Bag Company, Montreal, is being incorporated with a capital stock of \$125,000, to manufacture bags of every description.

Messrs. Park, Cook & Co., Stouffville, Ont., have been making extensive additions to their planing mill, and have also installed a new Corliss engine, built by Cowan & Co., Galt, Ont.

The Packard Lamp Company, Montreal, manufacturers of the celebrated Packard incandescent electric lamp, inform us that their sales of that article during the month of October were larger than those of any other month since they began business in Canada, and that their sales during the month just closed - November - were at least twenty per cent. in excess of those of October.

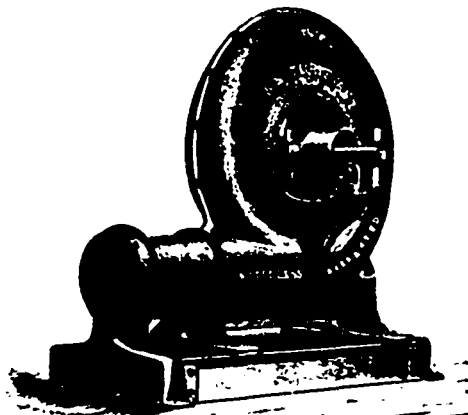
**NEW One Dip Black for Wool  
One Dip Black for Cotton**

Suitable for Raw Stock, Yarn and Piece Goods.

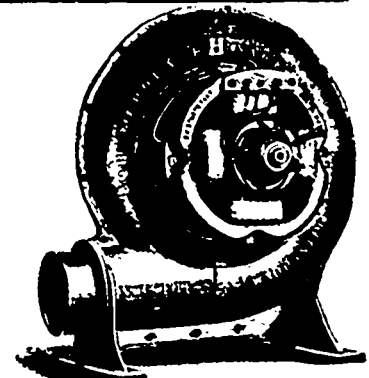
These Blacks deepen in the atmosphere and in fulling, and dye very economically. Manufacturers and Dyers will do well to send for a sample bbl. of each.

**ALEX. P. MENDE, 14 Water Street, NEW YORK**

**THE STURTEVANT  
STEEL  
Pressure  
Blowers**



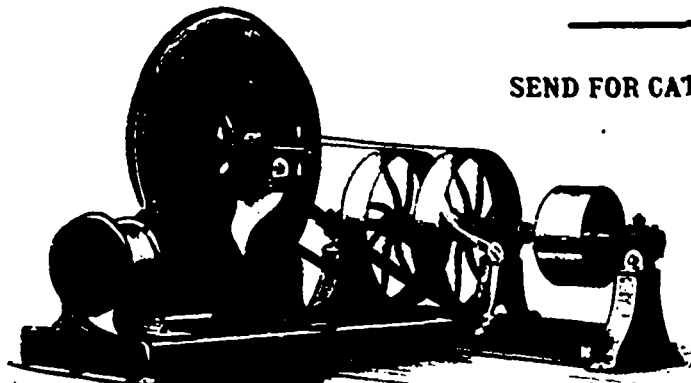
Blower on Adjustable Bed.



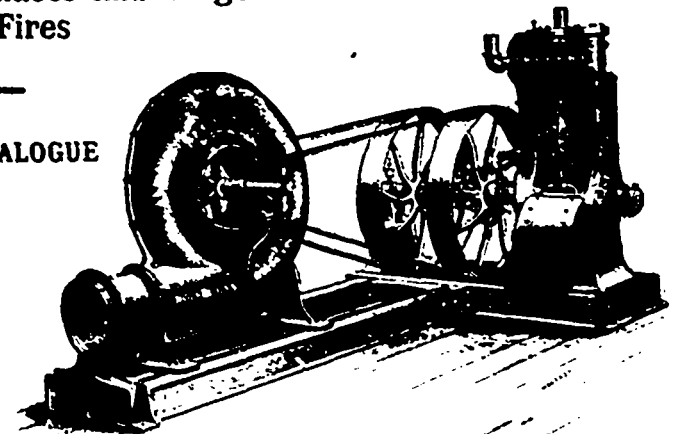
Blower with Electric Motor.

**Cupola Furnaces and Forge  
Fires**

SEND FOR CATALOGUE



Blower on Adjustable Bed with Combined Countershaft



Blower on Adjustable Bed, with Double Enclosed Engine.

**B. F. STURTEVANT CO., BOSTON, MASS., U.S.A.**

# HIS EXPERIENCE!

- - MAY PROFIT YOU - -

## SEE WHAT HE SAYS!

OFFICE OF J. & R. MILLER, CONTRACTORS, BUILDERS, ETC.,

MOUNT ELGIN, November 22nd, 1893.

THE DODGE WOOD SPLIT PULLEY CO.

GENTS, Please forward to us at your earliest convenience, to Ingersoll, via G.T.R., one pulley for 14-in. non shifting belt, size of bore, 3 1/2; diameter of pulley, 28 inches.

The above pulley is for our saw mandrel on which we use a 55 in. saw, and drive with double belts. As there is a heavy strain on this pulley, you can use your own judgment as to whether a four or two armed pulley is required, as your experience in your pulleys as regards strength will decide this matter. The former pulley was an iron one, with a 1/2 x 12 key holding it fast to the mandrel, so if you consider a key necessary, make the key seat 1 1/2 in. wide. I do not know if a key is necessary, but again use your own judgment in this matter. My reason for saying I do not think it necessary is that the pulley I got from you, size 15 x 38, as a line shaft pulley and keyed to shaft (four armed pulley), gripped so tightly that although the key was slack it did not seem to move enough to tighten key. This pulley runs the entire machinery, including saw. This pulley has been running steady for 18 months under a very heavy strain, and to-day is as good as the day it was put on. In fact, I consider if I was putting in machinery, if I could get iron pulleys at one-quarter the cost of the Dodge Wood Split Pulley, would not use iron, as I consider your pulley that much cheaper in the end. Please send this pulley by freight on receipt of this, subject to your thirty days trial. Advise when shipped, and much oblige yours.

J. & R. MILLER, *Inc* 62, Mount Elgin, Ont.

Per AUSTIN MILLER, *Manager*.

IF YOU WANT PULLEYS WRITE FOR CATALOGUE AND DISCOUNTS

**DODGE WOOD SPLIT PULLEY CO., Office, 68 King St. W., Toronto.**

One can scarcely appreciate the rapidity with which progressive foreign manufacturers are adopting the most improved American machinery for perfecting their products. In the line of wood-working machinery this feature is especially prominent. Visitors to the recent Columbian Exposition found much to admire when passing through the Wagner and Pullman trains, and at other points on the grounds, in the way of foreign woods so effectually used. As in our own country, these timbers are now being dried and seasoned by the fan system in preference to the usual out-door method. Cured in this manner, the product is far superior in every way, being brighter, more lustrous and evenly dried, which prevents checking. The Buffalo Forge Co., of Buffalo, N.Y., have furnished within the past year a number of plants for various foreign countries, including the largest sizes of Progressive lumber dryers. Usually the average foreigner is slow in purchasing machinery which he feels is at all difficult to set up and operate. Concerning this feature, from a recent letter received by the Buffalo Forge Co. from one of their foreign customers, we are allowed to quote as follows: "It affords us pleasure to say a good word for your fans, engines and heaters, as we have placed them in our factory. The outfits were placed by our own hands. Your specifications were so carefully drawn up, that we were not put to the expense of securing the services of an expert for the purpose. The kiln answers every purpose to perfection; the dry rooms are run with exhaust steam at mere nothing in the way of cost compared with the old way. The whole arrangement is very simple and easily managed, besides being a money saver in operation. We are able with the kiln you sent us to dry soft woods in three and hard wood in five days; that's good enough for anyone." The Buffalo Forge Co. inform us that the demand for their lumber dry kilns for export has become quite a feature of their business.

Messrs. Seaman & Hill, the enterprising manufacturers of Warton, Ont., have recently put in a Corliss 60 h.p. engine, manufactured for them by Messrs. Cowan & Co., Galt, Ont.

Messrs. Thomas Down & Co., Toronto, who are sole manufacturers in Canada of Rehm's duplex steam trap, inform us that they are meeting with gratifying success in the sale of the article. The principle involved in this trap is the expansion of metals by heat, and their contraction by cold. The

expansion or contraction of the outer frame governs the entire working of the trap. When the outer pipe which constitutes the trap becomes heated, and expands, the expansion cannot find vent lengthwise or laterally, because of the adjusting rod. The trap, therefore, vents its expansion vertically or in a line across the centre. Just here rests the secret of the entire mechanism of the trap. The valve and valve stem are in this vertical line, and influenced by the slightest variation. Expansion causes the valve to close and stop the flow of water. Contraction opens the valve for ready discharge of water. The adjusting rod passes through an opening in the valve stem. The trap must always be adjusted with steam on by turning the adjusting rod sufficiently to prevent all escape of steam. Then when water enters the trap and cools it off, contraction causes, thus opening the valve allowing the water to flow out of the outlet. Care should be taken not to adjust too tightly. The delicate adjustment admits of discharging water of any desired temperature. The advantage of this trap is, that no water accumulates to condense steam, thus giving the full benefit of it. It may be attached to steam engines, pumps, boiling kettles, railroad coaches or any heating apparatus, or wherever steam is used for heating purposes.

The Hamilton Electric Light and Power Co., Hamilton, Ont., are placing a 200 h.p. L. P. & D. transmitter, made for them by Messrs. Darling Bros., Montreal.

Messrs. Butterfield & Co., Rock Island, Que., the well-known manufacturers of thread-cutting tools, have made a new departure in putting up their new Resce screw plate, an illustration of which may be found in our advertising columns. They now put into each assortment, without any extra charge, tap wrenches of the most approved pattern. The advantage of this addition will be evident at a glance to all mechanics. The new Resce screw plate has a most enviable reputation in our market for completeness, excellence and price.

The salt works of the Canadian Pacific Railway Company Windsor, Ont., now nearing completion, and which will cost about \$75,000, will have capacity to produce about 1,000 bars salt per day.

The Base lumber mill, at Hastings, B.C., with all building and appurtenances, has been sold to a syndicate of Japanese. The purchase price was 45,000 yen. These Japanese have extensive timber limits on Howe Sound.

Messrs. Kirkland & Co., of Warton, Ont., have recently put up a new establishment for the manufacture of wood work boxes, etc., and have purchased their outfit of new wood working machinery, including engine and boiler, from Messrs. Cowan & Co., Galt, Ont.

The Ottawa Gas Co., Ottawa, have just installed a new 45 h.p. boiler made for them by Messrs. P. J. Powers & Co., of that city.

Messrs. Lippert, Schaeffer & Co., Waterloo, Ont., manufacturers of furniture, are enlarging their business, and will build a large four storey factory, with engine and boiler room, in addition to their present facilities.

Application will be made to Parliament for the incorporation of the Niagara Falls Electric Railway Bridge Company to build a bridge across the Niagara river at or near the Whirlpool Rapids, over which to operate an electric railway. The height of the bridge above the water will be 200 feet.

**THE BARNEY VENTILATING FAN.**

The Barney Ventilating Fan Company, whose chief place of business is at Boston, Mass., with Canadian branch at Montreal, inform us that they are meeting with much success in placing their ventilating fans with Canadian textile manufacturers, tanners and papermakers, for the removal of steam and dust, and for drying. This pleasant and profitable business acquaintance has developed since this company made their name and the excellence of their powerful machines known to the readers of this journal. As an evidence of the esteem in which their fan is held, they have supplied us with copies of letters they have recently received from Messrs. Beardmore & Co., proprietors of some of the largest tanneries in Canada, which we take pleasure in here reproducing.

Acton, Ontario, 22nd August, 1893.

Messrs. Barney Ventilating Fan Co.,

No. 70 Pearl street, Boston, Mass.

Gentlemen, We will accept your proposition to put in a fan on trial. Please have it shipped from your stock in Montreal. Yours truly,

Beardmore & Co.

Acton, Ontario, 15th Nov., 1893.

Gentlemen, The fan which you supplied us is now set up and working admirably. Please send us another one of the same size from your Montreal store.

Yours truly,

Beardmore & Co.

Acton, Ontario, 21st November, 1893.

Dear Sirs, Please send another fan, same size, to the Muskoka Leather Co., Bracebridge, Ontario, from Montreal. Yours truly,

Beardmore & Co.

**WE MANUFACTURE FANS FOR NOTHING**

but hard work, and having had twenty years experience we know how to get steam out of

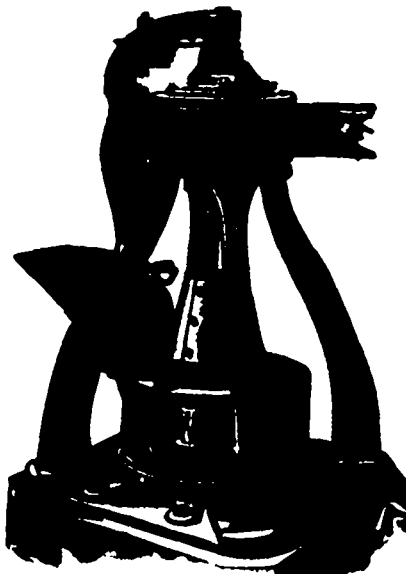
**Dye Houses and the largest possible product from Dry Rooms**

Our Compound Wheel is the most powerful in the world, and if we can't be of actual value to you we don't want your money. **No CUSTOMS DUTIES on our Fans.**

Send for Circular and Information **BARNEY VENTILATING FAN CO., 70 Pearl St., Boston, Mass., U.S.A.**

**THE GRIFFIN MILL**  
The Only Perfect Pulverizer

OF  
QUARTZ,  
GOLD  
OR SILVER  
ORES,  
PLUMBAGO,  
PORTLAND  
CEMENT,



OF  
PHOSPHATE  
ROCK,  
FOUNDRY  
FACINGS,  
And All Other  
Refractory  
Substances.

Will work either wet or dry, and deliver a finished product. Capacity, 3 to 4 tons per hour on Phosphate Rock, 1 1/2 to 2 tons per hour on Portland Cement, Quartz or Ores, depending on hardness of material to be pulverized and fineness of product. Grinds from 30 to 250 Mesh with equal facility.

No JOBSHOPS IN GRINDING CHAMBER. BALLS RIGID ON SHAFT HAVING DIRECT POSITIVE ACTION ON MATERIAL. MINIMUM POWER PRODUCES MAXIMUM AMOUNT OF PRODUCT. IT IS ABSOLUTELY GUARANTEED IN EVERY RESPECT, BOTH AS TO CONSTRUCTION AND CAPACITY. FIRST COST, WEAR, AND OPERATING EXPENSE MUCH LESS THAN STAMP MILLS. LARGE NUMBER OF MILLS IN USE ON DIFFERENT MATERIALS WITH POSITIVE SUCCESS IN EVERY INSTANCE.

Correspondence solicited, and illustrated descriptive pamphlet furnished on application to

**BRADLEY FERTILIZER CO., 92 State St., Boston, Mass.**

**THE GRIFFIN MILL**  
IN CANADA

IS MANUFACTURED AND SOLD ONLY BY

PULVERIZES PORTLAND CLINKER, NATIVE CEMENT, GOLD AND SILVER ORES, PLUMBAGO.



PULVERIZES PHOSPHATE ROCK, FOUNDRY FACINGS & REFRACTORY SUBSTANCES OF ALL KINDS.

**The Jenckes Machine Co.**

SHERBROOKE, QUE.

Branch Office - 16 VICTORIA SQUARE, MONTREAL

CORRESPONDENCE SOLICITED

**T. A. MORRISON & CO.**

118 St. Peter St., MONTREAL

**CONTRACTORS' SUPPLIES**

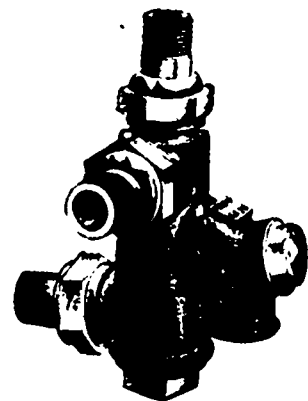
"ECLIPSE" DOOR CHECKS & SPRINGS

Best in the world.

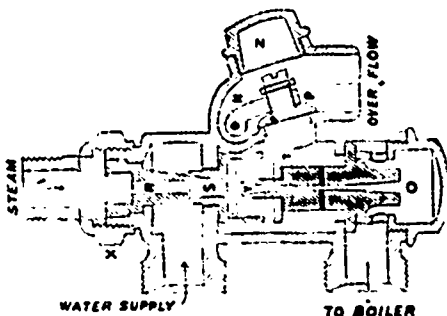
Notice: The "Eclipse" Checks and Springs are giving the best of satisfaction, and we are selling large quantities.

**PENBERTHY AUTOMATIC INJECTOR.**

The accompanying illustrations are of one of the most popular boiler-feeders that has yet been introduced to the steam-using public. The Penberthy automatic injector was first placed on the market in the spring of 1887. At that time there seemed to be no thoroughly successful automatic injectors manufactured. Almost the only boiler-feeders in use, aside from the steam pump, were injectors of what is known as the positive class, which required constant attention and considerable manipulation of valves in order to re-start them if the current of water to the boiler became broken for any reason. This injector, therefore, had great opposition to encounter and great incredulity to overcome before it could make for itself a successful place with the trade. From that time to the present, it has been the constant aim of the manufacturers to make such improvements and changes as should increase its working qualities. In this they have succeeded admirably, having to-day a machine which is recognized as a standard among automatic injectors.



It works from 20 to 25 lbs. low steam, according to size of the injector, and from this up to 145 or 150 lbs., its best working point being, of course, about midway of its range, or at 65 to 80 lbs. On these pressures it will lift water from 22 to 24 ft., and it is claimed to be about the only injector which will work equally well through hot or cold suction pipe. This is a very great



advantage, as frequently the steam valve will not close perfectly tight, and when an injector is shut off the steam leaking through the valve will heat the body of the injector and also the suction pipe, so that with such machines it is necessary to cool the pipe before the water can be lifted.

During the six and a half years that this injector has been in the market, nearly 75,000 of them have been sold, and almost without exception they have given satisfaction from the start. The makers write us, that while they received calls at their exhibit in Machinery Hall at the World's Columbian Exposition from nearly all their extensive trade throughout the U.S. and Canada, and from many thousands of engineers who have used and are using their goods, they only received two complaints, which were of such a nature that a few words of explanation and instruction set the matter right. An examination of the sectional cut will show the simplicity of this injector, the inside parts being very easy to get at for purpose of cleaning or examination. The steam jet R can be removed by simply loosening the nut on the top of the injector, while the delivery jet Y, which is the most liable to stoppage by dirt, can be taken out without disturbing the connections to the boiler, by simply unscrewing the plug O in which the jet rests.

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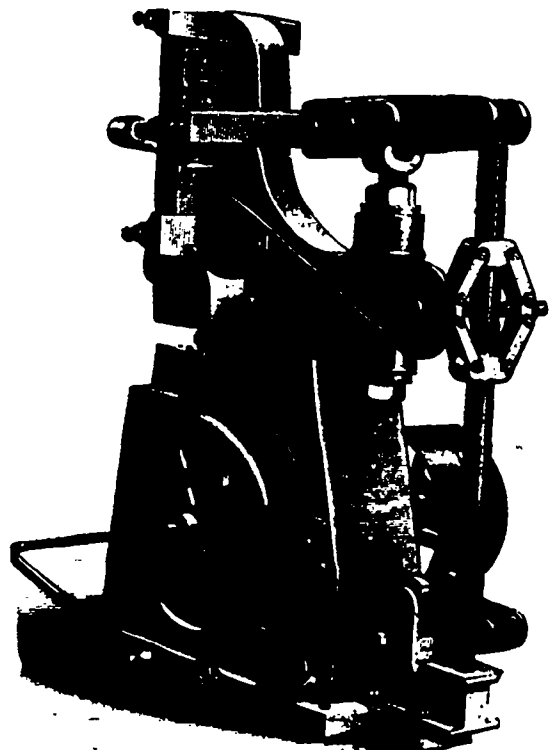
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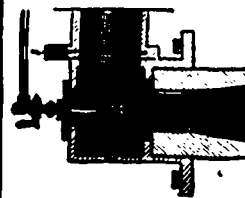
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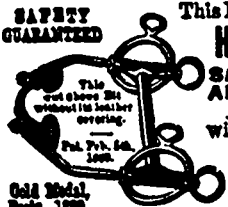
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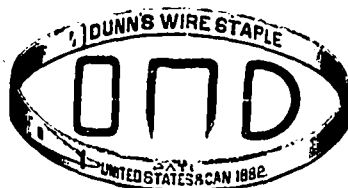
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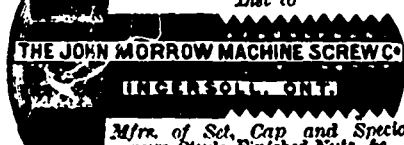
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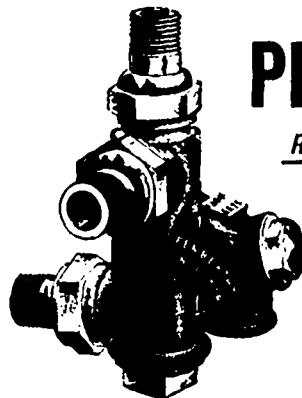
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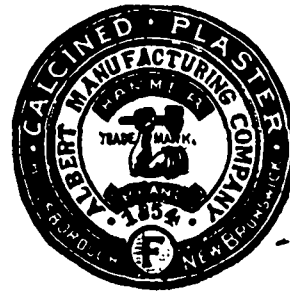
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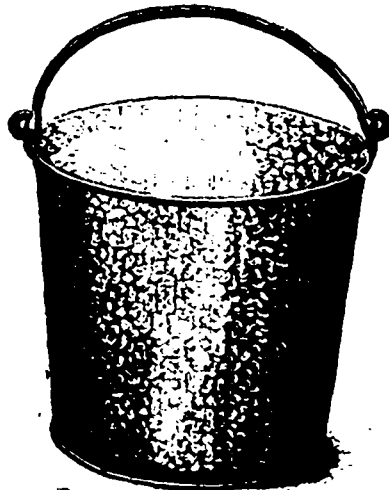
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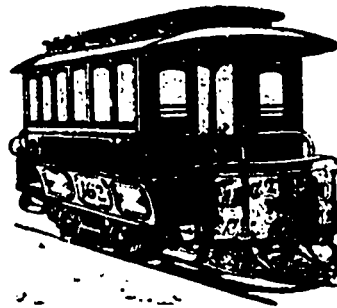
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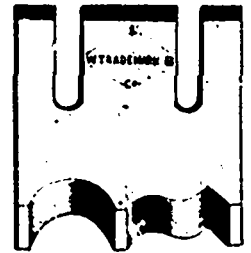
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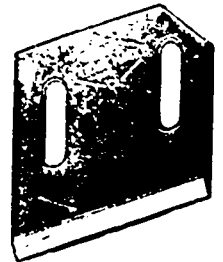
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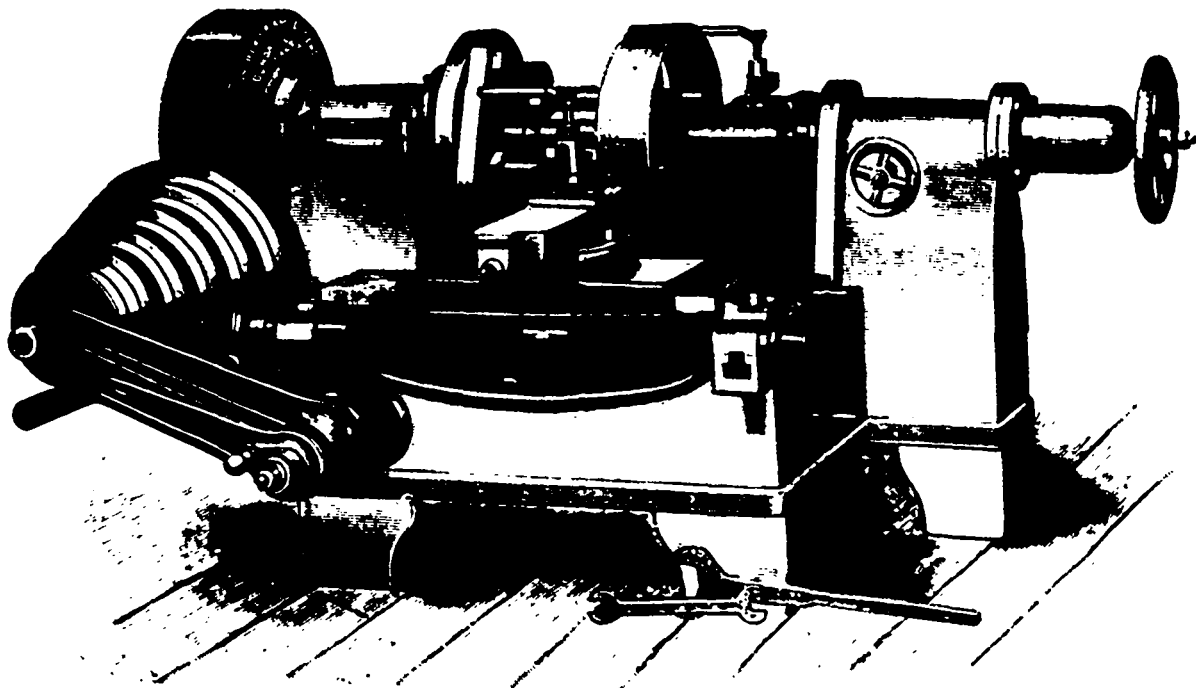
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The report was adopted and the retiring Directors unanimously re-elected. The Board of Directors are now constituted as follows: James Goldie, Guelph, pres.; W. H. Howland, Toronto, vice-pres.; H. N. Baird, Toronto; Wm. Bell, Guelph; Hugh McCulloch, Galt; S. Neelon, St. Catharines; George Pattinson, Preston; W. H. Story, Acton; J. L. Spink, Toronto; A. Watts, Brantford; W. Wilson, Toronto.

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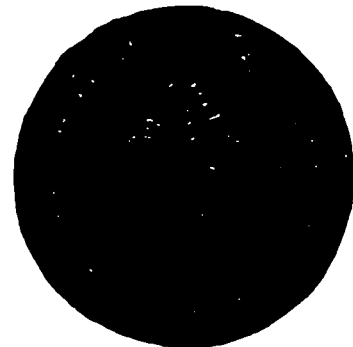
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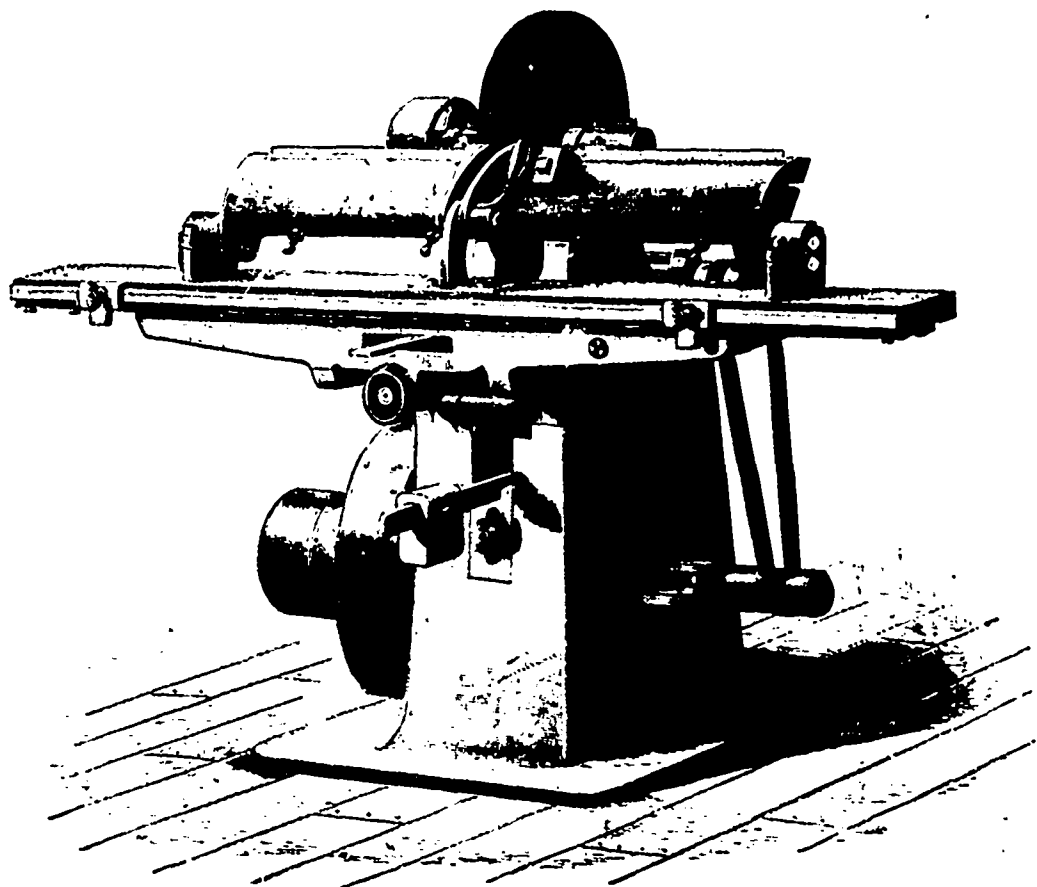
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**THE OBJECTS OF THIS ASSOCIATION ARE:**

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- To enable those in all branches of manufacturing enterprises to act in concert as a united body whenever action in behalf of any particular industry, or of the whole body, is necessary.
- To maintain Canada for Canadians.
- To maintain Canada for Canadians.
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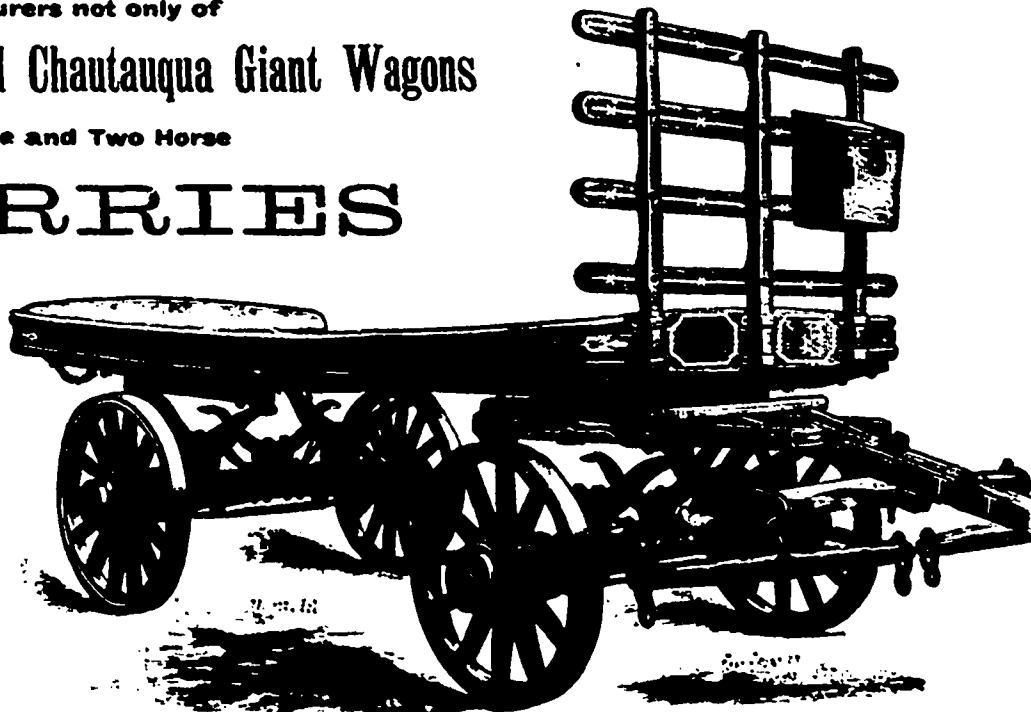
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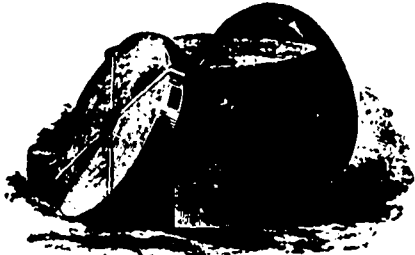
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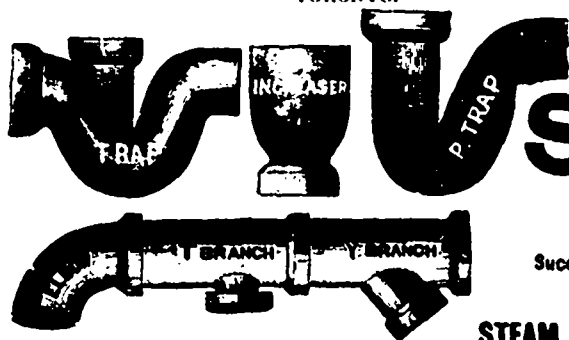
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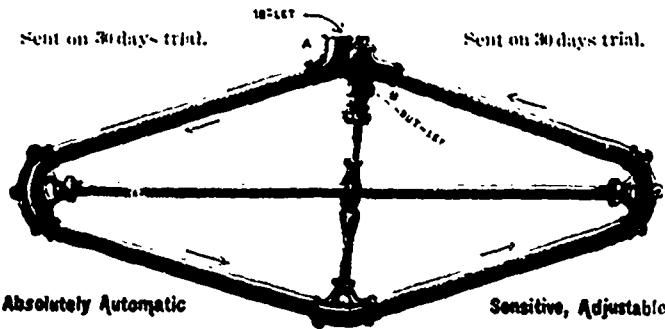
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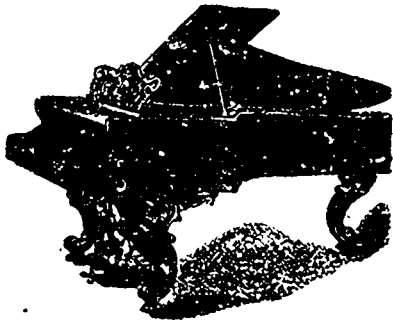
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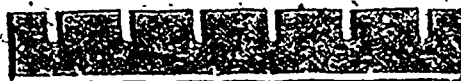
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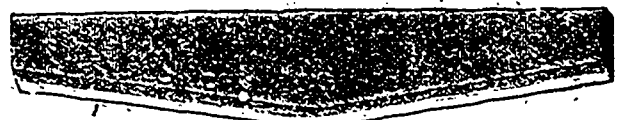
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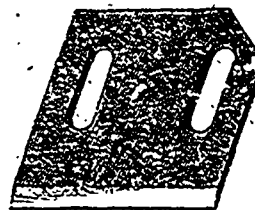
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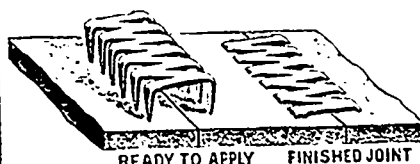
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