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TORONTO.

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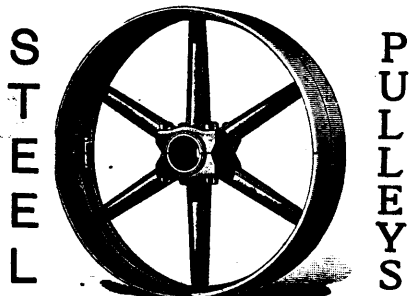
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Vol. 44.

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No. 7



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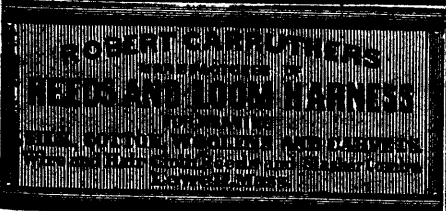
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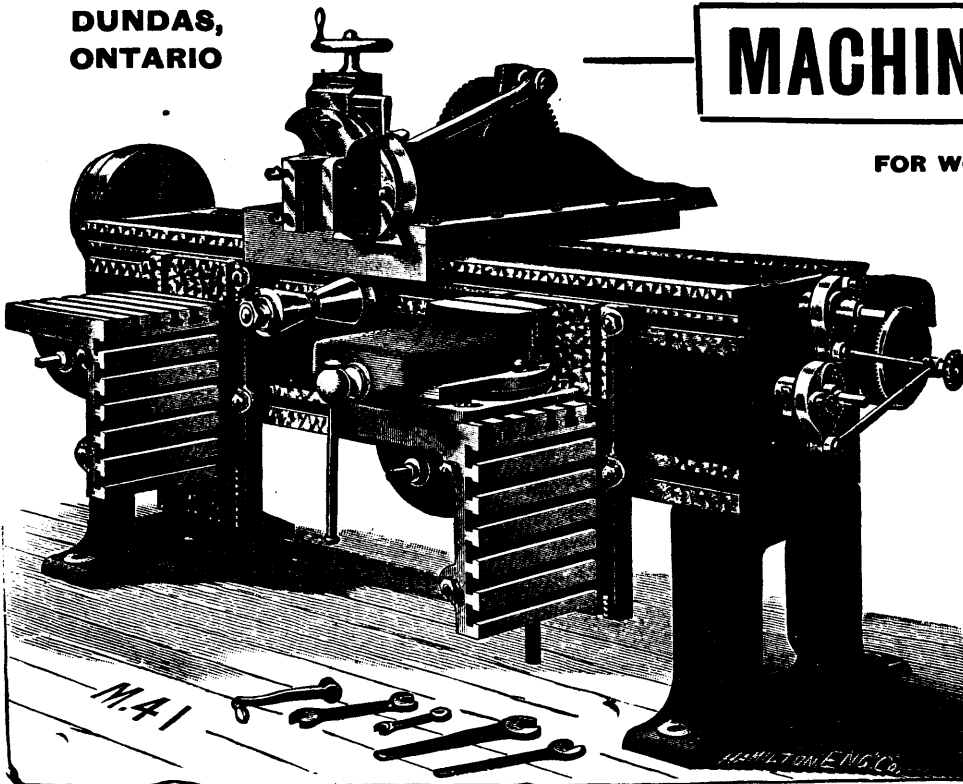
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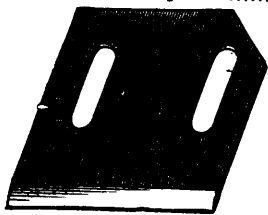
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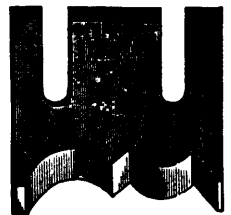
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MAGNET BRAND

MADE AT

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The OWEN SOUND PORTLAND  
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Correspondence invited.

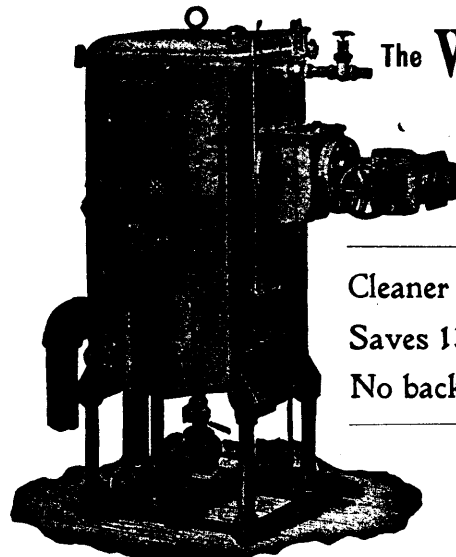
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Head Office, OWEN SOUND, Ont.

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Saves 6% to 12% (or more)  
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Cleaner boilers. Uses Waste Steam.  
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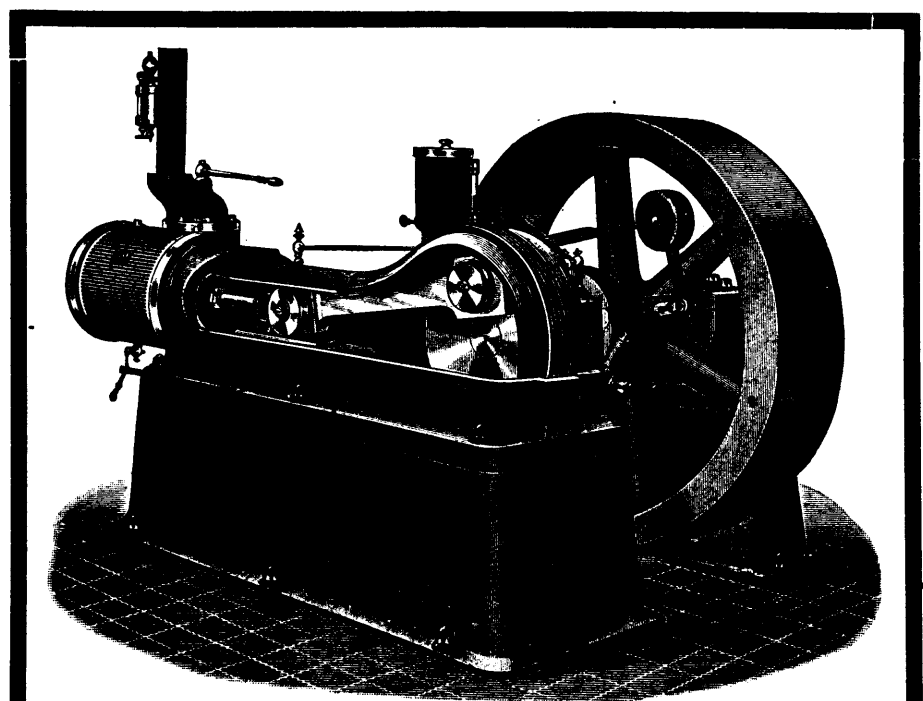
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DELIVERY MADE AT NEW YORK, MONTREAL OR HAMILTON.

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**The Oiling System** of our engines consists of an oil reservoir, piped to a sight feed valve at each bearing, one valve controlling the supply to all bearings. The main bearing has self-oiling rings in addition to the sight feed valve. The crank pin is oiled automatically by oil from main bearing, and also by a sight feed valve on main bearing cap. All oil is caught in crank pit, and, after filtration, returned to oil reservoir.

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A HIGH GRADE PACKING

**"THE BEST IS CHEAPEST"**

Applies to your work and this packing.

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No time lost re-packing joint; specially adapted for high pressure.

See the Trade Mark on every piece.

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**"ROSSENDALE," M.A.Y. WOVEN**

You run no risk. Return at our expense if not satisfactory. These belts are twice the strength of leather, more durable, 30% cheaper.

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**BELTING**

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30 Wellington St. East, Toronto.

**THE BEST IS NONE TOO GOOD.**

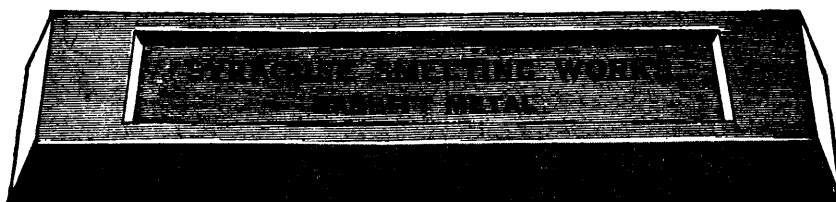
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Is a high class serviceable machine; it offers the best means of applying either steam, water or electrical power for pumping purposes. A special feature is the use of three cranks 120 degrees apart—ensuring a practically constant delivery. This pump, for Boiler Feeding, etc., and especially in connection with an electric motor, gives excellent results.

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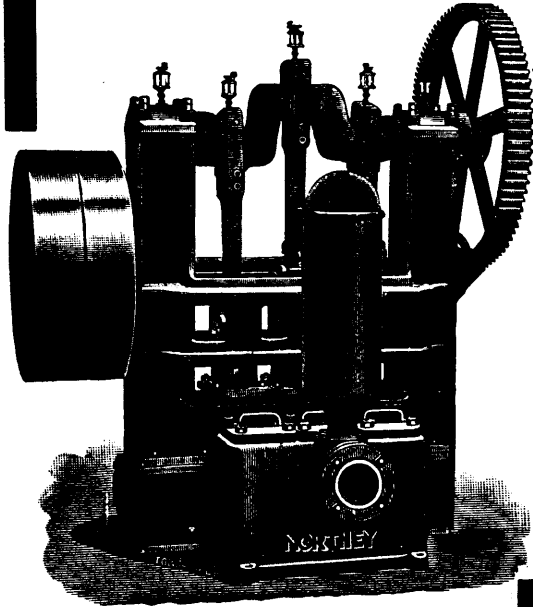
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Gasoline Engine**

a handy and economical  
motor.

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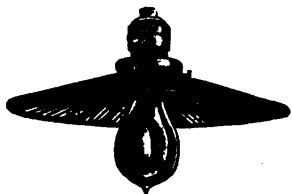
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WITH ARTISTIC AND  
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Or anything that you may desire, **FIRST-CLASS** in every particular, at Prices  
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We Stock a Large Variety of **SHADES**  
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**ALUMINUM, MIRROR, CELLULOID, PAPER, PORCELAIN,**  
**FOR FACTORY AND OFFICE.**

**Imperial Lamps and Helios Upton Enclosed Arcs** Give **BEST LIGHT** with **LEAST CURRENT**  
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ESTABLISHED IN 1880.

PUBLISHED ON THE FIRST AND THIRD FRIDAYS OF EACH MONTH

**The Canadian Manufacturer Publishing Co., Limited.**McKinnon Building, Cor. Melinda and Jordan Sts., Toronto.  
Cable address: "CANAMAN." Western Union Telegraphic Code used.**MESSRS. DAVISON & CO.,**

164 Federal Street, - Boston, Mass.

AGENTS FOR UNITED STATES.

Index to Advertisers ..... Page 42

*J. J. CASSIDY.* - - - *Editor and Manager***SHIPBUILDING IN CANADA.**

No iron or steel ship has ever yet been built in Canada, the plates, angles, beams, etc., of which were made in Canada. A few as fine ships as ever floated have been built here, but of imported material, which shows that we have the skill to design and the ability to execute; but we have never yet had, nor do we now have the facilities to convert the original raw materials into completed ships. The raw materials necessary in the construction of a ship are not the plates, angles and beams, but the iron ore found in such abundance in so many places in Canada. The processes of evolution begin at the moment when the ore is taken from the earth, and every process of its development from that time until it arrives at the shipyard implies labor. The question for Canada to consider is, our iron industry having been advanced as far as it has been, if it should not be carried a couple of steps further, one in the production of plates, angles and beams, and another in the utilization of them in shipbuilding. We now mine our own ore, convert it into pig iron, from which we make certain forms of steel, and there can be no reason why these processes should not be continued to the end desired. It all means the employment of Canadian labor and capital in the development of Canadian resources in a direction calculated to lift Canada to a plane occupied by the most advanced and prosperous nations of the earth.

The shipbuilding industry in Canada labors under a very peculiar disadvantage in that any vessel having British registration has free access to our domestic trade. This is imposed upon us by the British North America Act, and while it operates strongly against the development of shipbuilding in Canada, there is a feature of it which should be investigated, and if possible, remedied. We raise no objection to the free entry of British built ships owned by British subjects, but we see a great injustice in a law that allows a foreign built ship to obtain British registry simply by sailing into a port of a neighboring British colony, making a perfunctory declaration, paying a small fee and being metamorphosed into a British ship with British register, for the special purpose of avoiding a Canadian law. This condition was not very long ago exemplified in a case where a steamer was built in the United States with Canadian capital, to ply on exclusively Canadian waters, and, to avoid the payment of the Canadian duty was sent to a port in Newfoundland where British registry was issued to her, whereupon she was returned to Canada and employed in Canadian trade, to the manifest injustice of the

**The Canadian Manufacturer**

**Reaches all the Blast Furnaces, Iron and Steel Works, Rolling Mills, Manufacturers of Iron and Wood-Working Machinery, Steam Engines and Boilers, Pumping and Mining Machinery, Electric Machinery and Appliances, Machinery Dealers and Steam Fitters' Supplies, all Hardware Dealers, Cotton, Woolen, Knitting and Yarn Mills, Pulp and Paper Mills, etc., in Canada.**

Canadian shipbuilding industry. If we must admit free entry to British ships let the law be so amended that only such ships as are constructed in British shipyards for British subjects be included in the privilege.

Another and very important phase of this question of the employment of foreign built ships in entirely domestic trade was recently presented to the Government by a delegation of shipbuilders, representing the Bertram Engine Works Co. and the Polson Iron Works Co., of Toronto, and the Collingwood Shipbuilding Co., of Collingwood, Ont., who showed that according to a recent judgment of Justice Burbidge, in the Exchequer Court, it appears that the item of the tariff relating to foreign made ships of other than British registration is of no effect, and that consequently such ships are free of duty. The Algoma Central Railway Co., one of the Clergue corporations, with headquarters at Sault Ste. Marie, Ont., registered the steamboat Minnie M. at that port. The customs collector there demanded \$3,500 duty, because the vessel was of American make and had no British registration. British registration could have been obtained at the cost of a voyage to another British colony, namely, to Newfoundland, but that method was not resorted to. The duty was paid under protest, and the collector, who is authorized by the imperial acts operative in Canada to grant registration papers, issued the necessary documents. Proceedings were begun by the Algoma Central company to recover the duty, and were successful. The Exchequer Court ordered the money to be returned. This finding was not due to any conflict between the Canadian Customs Act and the British shipping laws, but entirely to the defect of the Canadian statute to express its intent. The fourth section of the Tariff Act provides that "there shall be levied and collected" duties as set forth in the schedule following upon all "goods enumerated" or "referred to as unenumerated," when "such goods are imported into Canada or taken out of warehouse for consumption therein." The provision to impose the duty ought, Justice Burbidge considers, to be embodied in the schedule instead of being cut off from it. A ship does not come within the definition of goods as given in section 3 of the Tariff Act; "neither," says the judge, "can a ship with propriety be said to be imported, and it would be absurd to refer to it as taken out of warehouse for consumption in Canada." Therefore, he held, while "it was the intention of parliament to impose the duties mentioned in the schedule, no authority but parliament could supply the omission and make

the act effective for its purpose." Of course, the shipbuilders want the wording of the Act changed, so as to tax foreign vessels not of British register.

In regard to another matter the deputation made strong representation. This was in reference to supposed laxness in the administration of the coasting laws. By section 2, chapter 83, of the Revised Statutes of Canada, it is provided that "no goods or passengers shall be carried by water from one part of Canada to another, except in British ships," and save in the case of vessels belonging to a foreign nation whose navigation laws permit Canadian vessels to ply between its ports. In 1899 the Canadian Government suspended this law for the season, in order to enable American vessels to assist in carrying grain from Fort William to other Canadian ports on the lower lakes. Last year it gave permits to American tugs to tow saw-logs, from the mouths of Canadian lumber streams to Canadian points on the lakes where there are saw-mills. At present, it is said, American vessels are participating in the Canadian coasting business. To this shipbuilders and shipowners object, maintaining that since their ships are excluded from the American domestic trade, so American vessels should be kept out of purely Canadian trade. And they also doubt the power of the Government to suspend the law.

All other conditions are in favor of the development of a very flourishing shipbuilding industry and merchant marine. In the North-West, settlement is becoming denser, farming is becoming more scientific, diversified and productive, and every year a greater outpouring of freight comes from there. The railway system of Manitoba and the Territories was far from equal to the handling of the crop before the close of navigation. A new outlet, paralleling the Canadian railroad, namely, the Canadian Northern, will make Port Arthur a busy grain shipping point next year. The merchant marine will need to grow fast in order to catch up and keep up with the tonnage that is to be handled.

#### THE TORONTO EXHIBITION.

Now that money is being expended with a liberal hand in the erection of new buildings on the Exhibition Grounds, and the reconstruction and rejuvenation of old ones, it is to be hoped that Canadian manufacturers generally will, in their own interests, and from patriotic motives as well, proceed immediately in the preparation of specimens of their skill for exhibition at the forthcoming Fair. This work should not be delayed; and the Exhibition authorities should, as soon as possible, announce their readiness to show floor plans of the buildings, and manufacturers should be equally ready to indicate locations and extent of space they will require.

It is announced that the Fair of 1903 will assume the dignity of a Dominion Exhibition, towards which not only the Dominion Government will be requested to contribute, but also all the provinces from the Atlantic to the Pacific. This is well; for certainly Canada is at this time in good condition to make such a show of her material resources as would attract the attention of the world. But we would suggest that it would be in their interests if manufacturers from all sections would, in anticipation of the 1903 event, prepare exhibits and show them at the 1902 Fair. They would thus learn the ropes, as it were, and, being better acquainted beforehand with the requirements of such an event, be the better prepared to meet them in a way that would prevent the possibility of disappointment next year. Therefore let those who would be possible exhibitors at the Dominion Exhibition of 1903 make preliminary exhibits in 1902.

No doubt at each event there will be elaborate displays of live stock, horses, agricultural, horticultural and dairy products, etc., for this is always done; and now that special and elaborate arrangements are being made in the way of new buildings for exhibiting dairy products, and for exemplifying the methods of production, these features of Canadian industries will be exceedingly attractive; and not to fall behind in the attractiveness of our manufacturing exhibits, special efforts should be made to place them on a higher plane than ever before.

The exports of all kinds of Canadian products are increasing by leaps and bounds, those under the general denomination of "manufactures" being of an exceedingly creditable character. The Toronto Fair attracts many thousands of visitors to this city every year, large numbers of them coming from the United States, and it is through these visits that the greatness of Canada is, to a certain extent, made known.

#### DISTANCE LENDS ENCHANTMENT.

In his address at the banquet of manufacturers in Montreal, Hon. W. S. Fielding, Minister of Finance, stated it as his opinion that the people of Canada do not do their duty towards the industries of the country in their purchases of manufactured articles. "It is," he said, "a misfortune that they should still hang on to the old idea that a thing must be better if it is only brought from a distance. I know how prone people in Canada are to buy foreign goods, not because they are any better, but because that seems to be the right thing to do—to buy goods that are imported." It did not seem to occur to Mr. Fielding that he had very much to do in bringing about the circumstance of which he so justly complained; and most probably he would not have alluded to it if he had not been aware of a condition now too prevalent in Canada that works to the disadvantage not only of our manufacturing industries but of the country generally. It seems to be the policy of the Minister, not so much to encourage and build up our manufacturing industries as to, as he believes, give cheap goods to the consumers; his opinion being that it is better to give the people cheap goods by importing them from abroad rather than by making them at home. It is the old argument of protection vs. free trade. The Minister believes in free trade and practises it as far as he can in tariff matters, a result of which is that the products of the cheap labor of other countries find easy entrance into Canada to the discouragement of the production of similar goods made in Canada. It is the opinion of Mr. Fielding and many others, that the prosperity of the country should be measured by the amount of trading that is done with other countries; but to our mind the country cannot be in the highest condition of prosperity until it produces at home everything necessary for the comfort of the people possible to be produced, importing only those things that we cannot with advantage make ourselves; and until we export only such things as we cannot consume at home. This covers the entire argument in favor of tariff protection. Under Mr. Fielding's tariff the import trade of Canada is going ahead by leaps and bounds, and he and those who think with him contend that the country is in the highest degree prosperous, but at the same time the Minister observes the fly in the ointment when he finds occasion to chide the consumers of the country for giving preference to foreign goods instead of to those made at home. And manufacturers sit around banqueting tables and applaud. It is audable to teach that preference should always be given to home enterprise; but that teaching should be not only to prefer home made goods, but also to discourage the importa-

tion of foreign goods where they create unfair competition. Why not prevent the possibility of flies getting into the ointment? Mr. Fielding knows that the standard of living in Canada is much higher than in many of the countries from which our imports come; but the tendency of his tariff is to admit the products of the cheaper labor of those countries, to that extent forcing Canadian labor down to the lower level. The tendency now is towards a condition similar to that which prevailed previous to the introduction into our fiscal system of that tariff protection to our manufacturing industries which brought them into the prosperity which has characterized them of late years; and manufacturers are neglecting their best interests when they neglect and overlook the possibilities and requirements of their own home market, and gaze with longing eyes towards the green fields of distant foreign shores where they hope to do a remunerative export trade.

**EL HAFED AND CANADIAN EXPORT TRADE.**

Some interesting suggestions as to how Canadian trade with the West Indies may be further developed are given in a report from Mr. Robert Munro, president of the Canadian Manufacturers' Association to the executive of the Association who, with a secretary and several members, is making a tour in those Islands with the object of extending trade in them. Mr. Munro points out that on even terms Canada can have the greater part of the business done there outside of what is done by Great Britain, although at the present time about 60 per cent. of the entire imports are from the United States. He considers that the trade of the West Indies can be diverted to Canada only by persistent effort, long continued and at considerable expense.

In the February 21 issue of this journal was published an article showing in considerable detail the character of Canadian exports to the British West Indies and to British Guiana in 1901, the total value of which aggregated only \$2,254,701. The sources of these exports were as follows:

Manufactures.....	\$145,653
The mine.....	60,861
The fisheries.....	1,153,499
The forest.....	220,907
Animals and their products.....	107,150
Agricultural products.....	556,631
<b>Total.....</b>	<b>\$2,254,701</b>

And the statement mentioned every item and the value of it included in the list of manufactures.

In the same issue was published an exceedingly interesting article prepared for us by Mr. George Johnson, Dominion Statistician, in which was analyzed Canada's trade with the British and other West India Islands extending over a period of 21 years. The facts showed that our trade there was small and constantly diminishing, and that the subsidy given by the Dominion Government to the support of steamship lines was the only thing that had stayed a falling trade.

In our January 3 issue was given a lengthy tabulated statement showing facts in detail regarding the trade of Canada with the United States during the years 1898, 1899, 1900 and 1901, reference being had to the values of 75 different dutiable articles of metals, chiefly iron and steel, and of 30 different non-dutiable articles of similar character, the values of which were as follows:

	Dutiable.	Non-dutiable.
1898.....	\$3,678,734	\$4,231,930
1899.....	10,083,167	4,734,323
1900.....	14,559,526	5,952,741
1901.....	13,273,406	7,844,956

Without reference to the non-dutiable articles, which were of the character of raw materials to be worked up into merchantable commodities in Canada, we would point out that every one of the 75 different dutiable articles imported into Canada, as enumerated in the table, might be and should have been made in Canada. The Association is taking a most lively interest in our export trade to the British West India Islands, even to the extent of sending there its president, secretary and several members, hoping thereby to expand an export trade which amounted in value last year to only \$145,653 of manufactures, while during the same year the value of Canada's imports of only 75 lines of manufactures, which should have been made at home, amounted to \$13,273,406.

Apart from the development of our export trade with the West Indies, we are reminded of a suggestive story told by Dr. Russell Cornwell, of the discovery of some famous diamond mines in India.

There lived on the banks of the Indus, long ago, he says, a Persian named El Hafed, a man of wealth. His orchards and fields yielded plentifully, and he had money at interest. His roof sheltered a beautiful wife and happy and well-beloved children. One day there came a priest to El Hafed's house, who, sitting by his fire, told him of the wonderful diamonds that were found in other parts of the world.

"If you had one as big as your thumb you could purchase many farms such as this," he said, "and if you had a bushel of them you could own the whole neighborhood."

Then El Hafed felt that he was poor. He longed for diamonds, and asked the priest to tell him where he could find them.

"Search for high mountains," said the priest, "with a deep river running between them, over white sand. In the sand you will find diamonds."

El Hafed sold his farm and went away to search for diamonds. He passed through Egypt and Palestine, and years later went over to Europe. The diamonds were never found, and one day, a broken-hearted, hungry stranger, he stood by the shore of the Bay of Barcelona. Crushed with disappointment, he looked at the big waves that came rolling in, and longed for peace. Then, in despair, he threw himself into the waters and sank.

The man who purchased El Hafed's farm led his camel one day to the stream in the garden to drink. While the camel buried his nose in the water the man noticed something sparkling at his feet. He reached down and picked up a black stone with an eye of light in it that seemed to reflect all the colors of the rainbow. He took the curiosity to his house, laid it upon a shelf and forgot it.

One day the same old priest came to visit El Hafed's successor. He saw a flash of light from the shelf. "Here is a diamond! Has El Hafed returned?" he asked.

"Oh, no," was the answer. "That is no diamond. It is a stone that I found out in the garden."

But the priest went out, and together the two men stirred up the white sand, and there came up into their hands other beautiful diamonds more valuable than the first.

This was the discovery of mines which enriched El Hafed's successor and led to the founding of a great line. The Arab guide who told the story swung his cap and said, "Had El Hafed remained at home and dug in his own garden, he would have been the wealthiest man of his time and the most honored."

The seventh annual convention of the National Association of Manufacturers of the United States will be held at Indianapolis, Ind., April 15, 16, and 17.

### THE BURDEN OF PROOF.

There seems to be an epidemic of thoughtlessness prevailing in Canada, strongly tinged in some instances with intentional misrepresentation regarding the intrinsic value of Canadian made goods as compared with similar goods made in other countries; the argument being, as intimated in the Toronto Evening Telegram, that tariff protection encourages Canadian manufacturers to sit down under the shelter of a favoring tariff, giving as little as possible to the consumer in value, and taking as much as possible from the consumer in money.

It is to be regretted that such impressions prevail, and, in our opinion, they prevail to a large extent through the apathy of the manufacturers themselves. There is another feature of the matter, however, where apathy does not prevail, for, as has heretofore been shown in these pages, the outcry against Canadian-made goods finds its incentive in unscrupulous salesmen who lose no opportunity to impress upon purchasers that under no circumstances are home made goods as valuable as those of foreign make.

The Telegram, however, insists that Canadian manufacturers should find out the lines in which English or American producers excel the Canadian producers of similar articles, and then attempt to bring his product up to the competing standard, instead of relying upon the tariff to compel the Canadian consumer to buy an inferior article of Canadian origin to save the duty on a superior article of foreign make. We have already pointed out to our erring contemporary that it was astray in its conclusions, and referred it to the recent display of Canadian made woolens at Ottawa as being the equal of any similar goods made anywhere else in the world, answering which The Telegram says:

THE CANADIAN MANUFACTURER cannot prove that the English or United States product is not, in some cases, better than the Canadian products.

The burden of proof does not rest upon us. The Telegram tells Canadian manufacturers in very plain language and without exceptions, that their products are inferior to those of other countries, the inferiority being measurable by the extent of the protection given by the tariff; and when we challenge the assertion, and point to a most forcible illustration of our contention, we are invited to produce proof showing that "in some cases" foreign products are not superior to the home made. We are willing to admit that "in some cases" foreign goods are superior to Canadian—for instance, in certain lines of silks, linens and laces, for they are not made in Canada—in certain lines of dye stuffs and chemicals, for they are not made in Canada; in certain lines of structural steel, for they are not made in Canada—in all these, and in some other lines we are willing to admit foreign superiority—because they are not made in Canada; but we invite The Telegram to prove, as it asserts by implication, that in cases where our manufacturers make things, they are in any degree inferior to the foreign product. We cited the Ottawa woolen exhibit; and it might surprise The Telegram to know that many lines of Canadian woolens are regularly sold to merchant tailors who make them up into clothing and sell them to the public under the positive assurance that they are of foreign origin; and the same fact prevails regarding many other lines of home-made textiles, hosiery, etc., the fictitious labels being the only thing about them that denotes that they are of so-called foreign origin. And we would like to have an expression of opinion from The Telegram regarding the excellence or otherwise of Canadian steam boilers and engines; Canadian steamers, yachts, boats and canoes; Canadian agricultural machinery; Canadian furniture; Canadian electric dynamos, motors,

etc.; Canadian street and railway cars and coaches; Canadian iron and wood-working tools; Canadian mining machinery; Canadian pianos and organs, and a hundred other Canadian manufactured products. There are a great many Canadians in Canada who prefer to think that Canada can produce nothing good enough for them, while at the same time they pay a larger price for what they purchase under the impression that they are getting imported articles, which, very often they are not.

We say that it is to be regretted that such impressions prevail as The Telegram entertains regarding the inferiority of Canadian goods; and we declare that this is to a large extent attributable to the apathy of the manufacturers. We are pleased to observe, however, that some of them always place distinguishing names, marks and signs upon everything they produce; and these do honor, not only to themselves, but to Canada; but there are others who attach no importance whatever to the legend "Made in Canada;" and who are quite willing to sink their identity, and that of their products, if it is so required by their customers.

### AUSTRALIAN TRADE.

The Federal tariff, so far as it has been modified by the Australian House of Representatives, is unsatisfactory to all parties alike. A correspondent of Commercial Intelligence says it pleases neither the protectionist nor the free trader, and confirms the general impression that a simple revenue tariff would, after all, have been the best. The idea of the Federal Government was to impose heavy import duties on everything which could be manufactured in the Commonwealth, but how far it has been realized is illustrated by the manner in which the new duties affect the printing trades. Printed books, for instance, are admitted duty free, although it was originally suggested that they should be liable to a duty of 25 per cent. Consequently, an Australian author may have a book printed in Great Britain and shipped to the Commonwealth at a less cost than would be possible in any of the States, because, apart from the high wages and legislative control of labor conditions, the printing paper, printing ink, and book-binding materials are all liable to duty. This is declared to be a kind of protection which does not protect. Then again, it is laid down as a principle that there must be no general exemptions from payment of duty. Every article exempted must be specified. Consequently, the free list is of inordinate length, and the Customs officials confess their ignorance of many of the articles mentioned. It has since been ascertained that many articles placed in the free list have been declared dutiable under other names and classifications. Thus the linotype machine is admitted duty free, but all other type-setting machines are subject to duty because they have not been specifically mentioned. The discontent in the Australian commercial world is so intense and widespread that a political crisis is imminent at any moment. The Canadian proposal for inter-imperial commercial union is not regarded with favor in Australia. It is pointed out that Australian trade with the Dominion is so limited, and possesses so few possibilities of expansion, that to favor it at the expense of Australian trade with other countries, other than Great Britain, would be sacrificing the substance to the shadow. Here are some instructive figures:

COMMONWEALTH AND NEW ZEALAND OVERSEA EXPORTS.	
To Great Britain.....	£36,000,000
To Foreign Countries.....	15,100,000
To Canada.....	175,000

## CANADIAN OVERSEA EXPORTS.

To Great Britain .....	£20,400,000
To Germany and France.....	750,000
To Australia and New Zealand.....	150,000

Commenting on these figures, a leading Sydney daily observes that "The enormous bulk of Canadian exports go to the United Kingdom, as is inevitable, and will probably always remain the case, even if the tariff wall between the Dominion and the United States were demolished. The great item of chilled meat, which in the London market commands about double the price of Australian frozen meat, is one of the permanent features of Canadian trade with the Mother Country. For this, for grain, timber, and other of her chief products, London is the pre-ordained inevitable market. It may not be an unwise thing for Canada to 'foster' the trade with England at the cost of sacrificing some small portion of her comparatively insignificant foreign trade. But for Australasia to differentiate against £15,000,000 for the sake of £175,000 (since no tariff arrangement could appreciably increase or direct trade with the United Kingdom), would be commercial insanity." The New South Wales State Attorney-General has suggested that, if a rebate of the duties were allowed in the case of imports from Canada, none of the commercial treaties between Great Britain and other Powers would be infringed; but the suggestion is not viewed with favor by Australian business men, who declare that, if accepted, it would lead to unpleasant complications, involving considerable labor and trouble without any compensating advantages.

## COMMERCIAL AGENTS IN BRITISH COLONIES.

The following is a complete list of officers designated in the colonies to undertake the duties of receiving and answering commercial enquiries which may be addressed to them by British traders who may seek advice:

- Bahamas—The Colonial Secretary, Nassau.
- Barbados—The Colonial Secretary, Bridgetown.
- Bermuda—The Colonial Secretary, Bermuda.
- British Guiana—The Controller of Customs, Georgetown.
- British Honduras—The Colonial Secretary, Belize.
- Falkland Islands—The Colonial Secretary, Stanley.
- Fiji—The Assistant Colonial Secretary, Suva.
- Gambia—The Collector of Customs, Bathurst.
- Gibraltar—The Colonial Secretary, Gibraltar.
- Gold Coast—The Colonial Secretary, Accra.
- Grenada—The Collector of Customs, Grenada.
- Hong Kong—The Harbor Master, Hong Kong.
- Jamaica—The Colonial Secretary, Kingston.
- Lagos—The Colonial Secretary, Lagos.
- Leeward Islands—The Treasurer, Antigua.
- Mauritius—The Collector of Customs, Port Louis.
- St. Lucia—The Administrator, St. Lucia.
- St. Vincent—The Supervisor of Customs, St. Vincent.
- Seychelles—The Administrator, Seychelles.
- Sierra Leone—The Colonial Secretary, Freetown.
- Southern Nigeria—The Secretary to the Government.
- Straits Settlements—The Registrar of Imports and Exports, Singapore.
- Trinidad—The Collector of Customs, Trinidad.
- Victoria—The Secretary to the Premier of Victoria, Melbourne.

The British Board of trade suggests that manufacturers and traders who wish to obtain any special information relating to trade in foreign countries, should, before addressing His Majesty's Consular Officers, make enquiry at the Commercial Intelligence Branch of the Board of Trade (50, Parliament Street, London S.W.). By taking this course much delay will be avoided in cases in which the Intelligence Branch is already in possession of the required information, while in other cases steps will at once be taken to forward the questions to the proper quarter.

## EDITORIAL NOTES.

It is the intention of the Government of New South Wales to appoint three or four commercial agents, one in London, one in South Africa, one in China, and probably a fourth in Japan. A sum of £5,000 has been provided on the estimates for the positions, the London agent to receive a larger salary than the others.

The papers read at the Ontario Land Surveyors' Convention may help to dispel the idea that our northern country is a land of ice and snow. The great clay belt, with its 16,000,000 acres, was described by Mr. G. B. Kirkpatrick as nearly all adapted for agriculture. Here is room for a million people, and settlement should be encouraged by the fact that at Albany Post on James Bay the potato tops were green on September 25, and garden produce had not all been removed for the winter on October 3.—Toronto Globe.

The fourth edition of the "American Trade Index" for 1901-1902, published by the National Association of Manufacturers, has been issued. It is a handsome octavo cloth-bound volume of nearly 500 pages. It is not a complete directory of the manufacturers of the United States, as it does not go beyond the membership of the National Association, but these number about one thousand. Practically every branch of the manufacturing industries of the United States is represented in its pages. The book is intended mainly for the use of foreign buyers. It is printed in four languages—English, French, German, and Spanish.

The new board of directors of the Toronto Industrial Exhibition Association held their initial meeting last week, at which the following resolution was adopted:—That a vice-chairman be appointed for the new Manufacturers' Building, and that Mr. W. K. George be elected to that position; that the by-laws of the Association be amended so as to provide for the appointment, by the board, of associate directors, confined exclusively to those who have been appointed chairmen or vice-chairmen of committees and not elected as members of the board; that the honorary directors for the present year be:—Captain W. F. McMaster; Messrs. W. B. Hamilton, Robt. Davies, R. W. Elliot, James Crocker, George Leslie, ex-directors; H. Wade, R. T. Coady, city treasurer; and W. A. Littlejohn, city clerk; that the associate directors be:—Messrs. John Chambers, Geo. Booth, John Maughan, W. K. George, Geo. Vair, Ald. W. T. Stewart, T. L. Moffat, and the chairman of the dog committee. It was also resolved that the Music Pavilion be used for the exhibition of women's work and such other features in connection therewith as may be first submitted to the board of directors by the ladies' committee, and be approved of by the said board; that the ladies' committee recommend to the board the appointment of superintendent and all employes in their department for their consideration and approval; that they shall have no authority to revise the prize-list; and that no rights of sale or refreshment privileges be granted or allowed in the building.

The Maritime Merchant, of Halifax, N.S., publishes an exceedingly interesting interview with a prominent merchant of that city engaged in West India trade, and who had just returned from a visit to those Islands, in which he spoke very intelligently regarding the opportunities of Canadian trade in that direction. Undoubtedly whatever increases the trade between Canada and the British West Indies has a tendency to assist the line of excellent steamers employed in that trade, and in which all our manufacturers are interested.

It is announced that the next annual meeting of the Canadian Manufacturers' Association will be held in Halifax, N.S., on some day or days in August next not yet decided upon. A branch of the Association will probably be established at that time with Halifax as the headquarters.

One of the most effective street decorations which will be seen in London on the occasion of the King's coronation will be an arch of grain grown in Canada, emblematic of the agricultural resources of the Dominion. The idea is that the King and Queen shall pass in their carriage under the arch in going to and coming from the coronation ceremonies. An arch of this kind would be a striking and picturesque structure, and prove a capital advertisement for Canada, since it would bring to the attention of thousands of strangers the wonderful fertility of our Western provinces.

It is understood that Mr. Peter McMichael, of the James Robertson Co., St. John, N.B., has been appointed to the position in the Dominion Radiator Co. made vacant by the resignation of Mr. John M. Taylor. Mr. McMichael is a brother of Mr. A. A. McMichael, of the James Robertson Co., of this city.

In the year 1870 there were, says an exchange, in the State of Tennessee 800,000 sheep and 200,000 dogs. Thirty years later, in 1900, there were in the same State 200,000 sheep and 800,000 dogs, while, apparently, it is only a question of a few years when there will be millions of dogs in the State and no sheep at all.

Mr. John M. Taylor and his twin brother, Mr. Adam Taylor, Toronto, have obtained a controlling interest in the firm of A. R. Woodyatt & Co., Guelph, Ont., manufacturers of hardware specialties, grey iron, malleable iron, brass castings, etc., and have removed to that city, Mr. John M. Taylor to become general manager, and Mr. Adam Taylor his assistant. Mr. A. R. Woodyatt, who had been the head of that concern, died within the past year. For many years Mr. John M. Taylor was managing director of the Dominion Radiator Co., Toronto, his brother being his assistant; and no one in this community stands higher in all things that distinguish a thoroughgoing, active, reliable, public spirited business man than John M. Taylor. His friends wish him every success in his new field of usefulness. Mr. Taylor retains his moneyed interest in the Dominion Radiator Co. and is still a director of it, he having resigned the position which he held in it as secretary, treasurer and manager.

Western Americans are helping the Dominion Government to people Canada by means of land companies, according to Mr. W. J. White, Inspector of Immigration Agencies. Within the past year many land companies have been organized in Minnesota, Iowa, Indiana, Illinois, Nebraska and other States. These companies buy up tracts of land in the Canadian North-West, and then sell farms to young western Americans who are looking for good properties. The companies spend large sums in advertising the lands, and some of them advance money to the new settlers. Mr. White expects to see twenty-five thousand new settlers go into the Canadian North-West during this year, and the land companies will help to swell this number by many thousands. Settlers are also moving to Western Canada from Maine, Pennsylvania, Ohio and other eastern States. Every one of this large army of "United Statesers" as brother Murray wishes them to be called, must have things to eat and drink and wear, besides an innumer-

able number of household effects and necessaries of life; and the question is, shall these supplies be made in Canada, as they should be, or in some other country, as they should not be.

The Japanese Consul-General, Mr. Nosse, who was in Ottawa a few days ago calling upon the Ministers, will use his good offices to promote closer trade relations between Canada and Japan. He thinks that this country can find a profitable market in Japan for beef, flour, lumber and other products. Canadians must realize, however, that their American competition is very enterprising and pushing, and act accordingly. "There should be no hostility between Canadians and the Japanese," said the Consul-General. "It is better for the two countries to cultivate mutually profitable trade relations, rather than for any antagonism to prevail. Your Western ranchmen should find in Japan a ready market for their beef. The Japanese are becoming great meat consumers, and the demand for beef is growing rapidly. It sells at from 45 cents to 50 cents a pound. With cold storage and the existing fine steamship service, there ought to be no difficulty in establishing a good trade. Certainly the atmospheric conditions are more in your favor than that of the Australians, who have commenced to send frozen meat to Japan. Now that an alliance has been concluded between Great Britain and Japan for the preservation of the 'open door,' the Japanese will doubtless give the preference to the products of Great Britain and her colonies, all other things being equal. To give you an illustration of the way in which this will work, I may say that Japan has a State-owned railway some 3,000 miles long. A good deal of lumber is used in connection with the railway, and I have written my friend, the Director of Supplies, suggesting that, in the event of quality and price being equal, he should purchase his lumber from British Columbia, rather than the United States. You can see, therefore, how friendly disposed we are towards your people."

We direct the attention of the Canadian Manufacturers' Association to the fact that the Australian Employers' Federation is being formed in Melbourne to guard the interests of employers generally. Any employer, firm, or association of employers may join the federation on payment of certain specified fees. A council representing all classes of employers are to have the management of the organization. These members of the council are to be elected annually at the general meeting. It is expressly stated that the members are not partners, nor in any way liable for each other, and that those ceasing to be members shall have no further claim on the organization. The following are the objects of the federation, as stated in the constitution:

- (a) To protect the interests of employers of labor from undue aggression and excessive State interference.
- (b) To assist in organizing existing associations of employers, and promoting the establishment of other associations.
- (c) To watch legislation affecting employers and proposed measures in the same direction.
- (d) To centralize the efforts of existing associations by providing suitable premises for meetings, and carrying on the work of a complete organization for the purpose of keeping employers well informed as to all matters included in the purposes of the federation affecting their interests.
- (e) To arrange for the support of suitable candidates to represent the producing, manufacturing, and trading interests in the Parliament.
- (f) To adopt whatever procedure may be considered advisable for the interests of employers and the general welfare of the State.
- (g) To federate or act in conjunction with similar organizations in the other States of the Commonwealth and New Zealand.

# CAPTAINS OF INDUSTRY.

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

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

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

The Ottawa Saw Co., Ottawa, are making their first shipment of saws to Australia.

The Metallic Roofing Co., Toronto, show in their catalogue "S" the various lines of sheet metal and goods manufactured by them. Some of these are V-crimped iron roofing, rock-faced steel siding, "Eureka" diamond tiles, "Eastlake" steel shingles, steel clapboards, etc. What is known as "Manitoba" siding is especially adapted for covering the sides of large buildings, such as elevators, mills, storehouses, etc.

Messrs. Goldie & McCulloch Co., Galt, Ont., are putting in a new thirty-one ton safe in the Bank of Commerce building in Toronto, said to be one of the largest safes ever put into a banking or other establishment in Canada.

A bridge will be erected at Eganville, Ont., over the Bonnechere river, to cost about \$15,000.

Messrs. Keenan Bros. have purchased the saw mill of the Goderich Lumber Co., at Owen Sound, Ont.

John Stinson will erect a planing and matching mill at Seely's Bay, Leeds county, Ont.

C. Kusick & Co., Buckingham, Que., have enlarged their saw mill and put in a new boiler.

A flour mill will be built at Oak Bank, Man., by a farmers' company, which is being organized.

The Laurie Engine Co., Montreal, have sent us a circular having reference to the planished steel shafting, finished flats, squares, hexagon and special shapes of steel made at the C. Pardee Works, Perth Amboy, N.J., for whom they are Canadian agents. Tables are given showing diameter of shafting, and weight per foot; and much other useful information. For further information write the Laurie Engine Co.

W. H. Duffy has established a portable saw mill at Hillsborough, N.B.

A municipal flour mill will be established at Cardston, N.W.T.

The Battle Creek Pure Food Co. has opened a branch factory in Toronto.

Reston, Man., is offering a cash bonus for the erection of a 150-barrel flour mill.

Alameda, N.W.T., will grant a bonus for a 100-barrel flour mill and a 30,000 bushel elevator.

The Frontenac Milling Co., Kingston, Ont., has received an order from the British War Office for 160 tons of flour for South Africa.

McElroy's three storey grist mill at Richmond, Que., was destroyed by fire March 31. Loss about \$10,000.

The prospects for the future of Halifax city are brighter to-day than they have been for a long time. This is occasioned by the fact that Mr. Hunter, of Swan & Hunter, the great Tyneside shipbuilding firm, has intimated his readiness to em-

bark in a shipbuilding enterprise in this province. The importance of this to the future of Halifax lies the fact that Mr. Hunter is known to favor this harbor as a site and could very easily be prevailed upon to make it his choice. Inasmuch as there are no available sites on the peninsula, the city itself is virtually out of the proposition, but the other side of the harbor has many suitable sites, a fact which is of an importance to Halifax almost equal to the possession thereof herself. A large shipbuilding plant anywhere on the shores of this port would be such an impetus to growth and prosperity that Halifax should not fail in putting forth the necessary efforts towards securing one when the opportunity is afforded. It seems that the tide in the affairs of this city that will lead on to fortune is now at the flood; wherefore it behooves the city to take it without delay. No one who has not seen a great shipbuilding plant such as Mr. Hunter proposes (for it is to be capable of building the very largest type of vessel) can imagine the great stir it makes in a place. Such a plant, with the industries that would presently spring up besides, would very soon double the population living in and about Halifax and Dartmouth. We are therefore pleased to know that the shipbuilding commission is so widely awake to the importance of the present opportunity that it recommends that the city should offer the \$100,000 bonus to a yard not necessarily in this city, but on this harbor. At the time of this writing no final action has been taken in this way, but in all probability before the number for which this is being written appears, the legislature will have sanctioned such a movement. From the appearance of things now, we feel safe enough in saying that Dartmouth is presently to be the seat of a large shipbuilding industry. We are pleased at this prospect not merely because it means the prosperity of one of the cities in which the Merchant is published, but because it will be good for the whole of the Maritime Provinces. —Maritime Merchant.

Mr. Mutton has purchased the flour mill at Minnedosa, Man., where he will erect a grain elevator.

Noe Laberge has bought the Grey Nun's mill at Chateauguay, Que.

## Pneumatic Tools and Appliances ARE GREAT MONEY SAVERS.

Air Hoists, Baggage Handlers, Agitation of Liquids or Syrups in Refineries. Cushion and Carpet Cleaners, Chipping Tools for use by Machinists, Boiler Makers, Stonecutters and Marble Works. Calking and Drilling, Air Brushes

### INGERSOLL-SERGEANT

PISTON INLET AIR COMPRESSORS FOR ALL DUTIES

THE JAMES COOPER MFG. CO. LIMITED

299 St. James St., Montreal

BRANCHES - - ROSSLAND, B.C. RAT PORTAGE, Ont. HALIFAX, N.S.

Pneumatic Augers, Punches, Hammers, Rammers, Rotary Drills, and Augers. Reversible Boring Machine, Flue Cutters, Rollers and Welders, Air Lift Pumps, Jacks, Paint Spreaders, Bolt Nippers.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.



The Springfield Milling Co. will erect a mill at Oakbank, Man.

John Wake will erect an elevator at Minnedosa, Man.

Mr. C. P. Worthington, auditor of the Clergue Syndicate, recently gave some interesting facts about their allied companies in Sault Ste. Marie, Ont. The pay roll for these companies for February totalled \$120,000, and, in addition, \$50,000 was disbursed for wages at the mines and along the line of railway. These companies disburse for material from \$500,000 to \$750,000 monthly, but February's total amounted to \$900,000. The Algoma Steamship Co. with their 18 vessels have a tonnage of 44,000 tons. There are about 4,000 men on the pay roll of the mines, shipping, and other outside departments. It is anticipated that the two blast furnaces will be in operation in August, when the output will be 120,000 tons of pig iron per month.

The Dominion Iron & Steel Co., a few days ago shipped five cars of steel billets by rail to Troy, N.Y. Shipments of billets and pig iron are being made almost every day to different parts of Canada and the United States.—Maritime Merchant.

Gravenhurst, Ont., has passed a by-law to raise \$15,000 to purchase the existing electric light plant.

The Dominion Coal Co., Sydney, N.S., will lease 65,000 square feet of land at the city of Quebec, and erect thereon a

shipping plant costing over \$50,000. They contemplate making the Port of Quebec the distributing point for their western Canadian business.

The Tavistock Milling Co., has purchased the flour mill at Wellesley, Ont., owned by J. G. Reiner.

Howland Bros., Kleinburg, Ont., have been incorporated with \$75,000 capital, to acquire and operate the Kleinburg flour mill. The provisional directors include W. P. Howland, and T. S. Howland both of Kleinburg, and Frank Howland, Toronto.

The Computing Scale Co., Toronto, has been incorporated with \$40,000 capital, to manufacture scales, balances, office supplies, etc. The provisional directors include J. S. Lovell, E. W. McNeill and S. R. Wilkie, all of Toronto.

The Hobbs Hardware Co., London, Ont., has been incorporated with \$350,000 capital, to manufacture hardware, etc. The provisional directors include T. S. Hobbs, E. H. Jeeves and W. A. Eastwood, all of London.

The Newmarket Sugar Co., Newmarket, Ont., has been incorporated with \$40,000 capital, to manufacture lime, etc., and grow sugar beets. The provisional directors include H. S. Cane, J. E. Cane and E. S. Cane, all of Newmarket.

Messrs. Williams & Wilson, Montreal, keep steel pulleys, six inches to forty-two inches in stock. To enable them to

supply their customers promptly they carry 1,200 tons of these pulleys.

The Mulholland-Buchanan Co., Toronto, has been incorporated with \$40,000 capital, to manufacture picture frames, mouldings, etc. The provisional directors include F. A. Mulholland, Francis Buchanan and J. J. Doan, all of Toronto.

The Canadian Ultimator Co., Peterborough, Ont., has been incorporated with \$50,000 capital, to manufacture milling machinery, plant, appliances, etc. The provisional directors include J. D. Flavelle, Lindsay, Ont.; C. B. McAllister and J. D. Collins, both of Peterborough.

The Hobbs Mfg. Co., London, Ont., has been incorporated with \$50,000 capital, to manufacture hardware, etc. The provisional directors include T. S. Hobbs, A. E. Gould and W. A. Tanner, all of London.

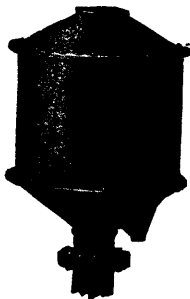
The Canadian Foundry & Iron Co., Montreal, has applied for incorporation with \$150,000 capital, to manufacture iron and steel castings, railway supplies, etc. The applicants include T. J. Drummond, E. M. McDougall and George Drummond, all of Montreal.

The Ogilvie Flour Mills Co., Montreal, has applied for incorporation with \$3,250,000 capital, to manufacture flour, grain, etc. The applicants include C. R. Hosmer, G. A. Drummond, both of Montreal; and F. W. Thompson, Winnipeg, Man.

## THE POPULAR VERDICT

....ON....

### BURT EXHAUST HEADS



"We are more than satisfied with the Exhaust Head that you sent us five weeks ago. It catches all the water that goes through the exhaust pipe, so the roof and around the building is fine and dry."

J. LUCKOWICZ & Co., Colby, Wis.

"We are pleased to say that the 14" Exhaust Head furnished by you is working nicely and giving entire satisfaction."

DENVER (COL.) CITY TRAMWAY CO.

"We have in use several of your Burt Exhaust heads, and they are giving excellent satisfaction."

OHIO BRASS Co., Mansfield, Ohio.

**BEST in Exhaust Heads is spelt BURT**  
BOOKLET WILL BE SENT FREE

**THE BURT MFG. CO.,**

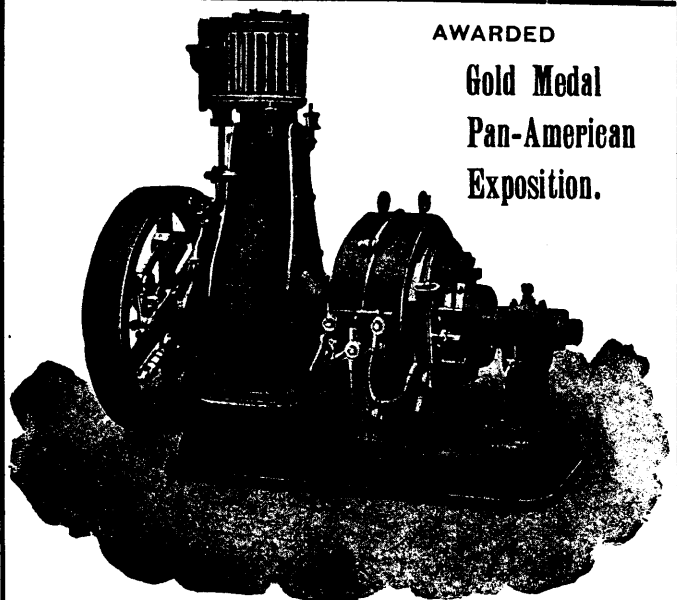
**AKRON, OHIO, U.S.A.**

Also Supplied by Engine Dealers, Builders and Power Contractors.

## BUFFALO HIGH SPEED ENGINES

HORIZONTAL  
VERTICAL  
BELTED

SIMPLE  
COMPOUND  
DIRECT CONNECTED



AWARDED

Gold Medal  
Pan-American  
Exposition.

**BUFFALO FORGE COMPANY,**  
BUFFALO, N.Y., U.S.A.

J. McLaughlin, Seattle, Wash., is at the head of a company building a five machine shingle mill at Barnet, B.C.

The Maple Leaf Harvest Tool Co., Tilsonburg, Ont., will apply for incorporation with \$100,000 capital, to manufacture harvest and mechanics' tools, saws, shovels, etc. The applicants include C. J. Shurly, J. C. Dietrich and F. G. Palmer, all of Galt, Ont.

The woodenware and broom factory of Messrs. Thomas Bros., St. Thomas, Ont., will be in operation shortly.

The Sprague's Falls Mfg. Co. has applied for incorporation with \$5,000,000 capital, to manufacture pulp and lumber on the St. Croix river, New Brunswick.

James Ross, Montreal; William Mackenzie, W. M. Pellatt, Frederic Nicholls and S. G. Beatty, all of Toronto, are applying for incorporation under name of Canadian Power Co. Its purposes are to generate electrical or hydraulic power for lighting, heating, etc.

W. B. Deacon, Belleville, Ont., will start a shirt factory at that place.

The Cockshutt Plow Co., Brantford, Ont., will build a large addition to their works and employ about 100 more men. The capital of the company is to be increased from \$250,000 to \$750,000.

A labor-saving device for tin-workers has recently been patented by Oscar Worthy and Charles Almas, of Hamilton, Ont. In it is formed a combination of several of the tin-working machines now in use, bead-ers, formers, groovers, crimpers, swages, etc., making it possible to be used for one or more of the same without re-setting. With it stovepipes can be completed, ready for seaming, at one passing through. One strong feature of it is an attachment by means of which the action of the machine upon the material can be started or checked at will, as in the manufacturing of stovepipe it does not bend or crimp the edges of the material, thus allowing a straight edge for placing in the seamer. The cost of manu-

facturing is small, a trifle over that of the ordinary rollers.—Labor Gazette.

The Cape Breton Brick Co., North Sydney, N.S., will erect a \$50,000 plant, capable of turning out 3,000 bricks per hour.

The Canadian Locomotive Works, Kingston, Ont., recently received an order for four new engines for the Algoma Central Railway Co.

A company of Western capitalists will open the rolling mills at Belleville, Ont. The city will grant a bonus of \$5,000 a year for six years, and the company will turn out not less than 7,000 tons of iron a year. About 100 men will be employed.

John Arbuthnot, Winnipeg, Man., will erect a planing mill at that place.

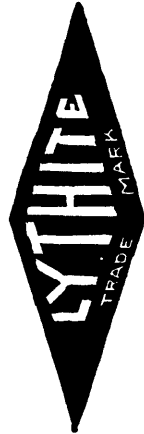
W. Wilson, McMoran Bros., and F. Robertson are erecting shingle mills near Revelstoke, B.C.

R. Cunningham & Sons, have just completed a new saw mill at Port Essington, B.C.

CAMEL BRAND . . . BELTING  
BALATA . . .  
RUBBER . . .

Linen Fire Hose,  
Water and Steam Hose,  
Packings, Etc., Etc.

THE STANDARD



GOLD WATER PAINT

WEATHER PROOF, FIRE PROOF  
WHITE AND COLORS.

MILL SUPPLIES

Lubricating Oils and Greases  
PAINT, PAINT OILS, ETC.

W. A. FLEMING & CO.

Montreal and St. John, N.B.

"RATHBUN'S STAR."

# Portland Cement

"BEAVER" BRAND

MANUFACTURED BY

**THE CANADIAN PORTLAND CEMENT CO. LIMITED**

Capacity of Works—500,000 Barrels per Year.

THE RATHBUN COMPANY,  
310-312 Front Street West,

SALES AGENTS

ST. LAWRENCE PORTLAND CEMENT CO.,  
2664 Notre Dame St. W.

Telephone Main 1379.

TORONTO, ONT.

Telephone Main 3987.

MONTREAL, QUE.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

The Canadian Pacific Railway Co. will erect an addition to their hotel at Banff, N.W.T., at a cost of about \$150,000.

The Goldie & McCulloch Co., Galt, Ont., report trade good in all their lines. Besides numerous small shipments from their safe department this month up to November 5, they have shipped a car load of vault stuff to Golden, B. C., and a car load of vault doors to one firm in Toronto. They have also orders for a car load of safes for Sydney, N.S. Other shipments are: A car load of machinery for Canada Woolen Mills Co., Waterloo, Ont.; one car load of tanks to Port Arthur, Ont.; one engine to Toronto; one car machinery to Cargill, Ont.; and much other small stuff.

John M. Swan, Tweedside, N.B., will build a large saw mill at that place.

The ability of the American engineer to design steel structures of great strength and pleasing architectural effect, is shown in the eight half-tones on the handsome souvenir mailing card issued by the Joseph Dixon Crucible Co., Jersey City, N.J. The card is a piece of artistic advertising on the part of the company, and will prove of decided interest to constructing engineers and architects, to whom it will be sent on request. Dixon's Silica-Graphite Paint, which protects these structures from corrosion, has been very extensively used in the south, west and sea-coast sections of the United States, also in Mexico, Australia, China, Japan, West Indies and Philippine Islands, and

has proven its protective and wearing qualities in all climates.

The Robb Engineering Co., Amherst, N.S., are calling attention to the oiling system of their engines, which consists of an oil reservoir, piped to a sight feed valve at each bearing, one valve controlling the supply to all bearings. The main bearing has self-oiling rings in addition to the sight feed valve. The crank pin is oiled automatically by oil from main bearing, and also by a sight feed valve on main bearing cap.

The big elevators for the Canadian Pacific Railway Co., at Fort William, Ont., to cost about \$2,000,000, will be built of wood, owing to the impossibility of getting the steel required immediately.

The Telfer Mfg. Co., Toronto, will erect a brick factory on the old Upper Canada College grounds to cost at \$13,000.

Mr. A. W. Spooner, Toronto, will be secretary and treasurer of the Grant-Hamilton Oil Co., Toronto.

The Canadian Niagara Power Co., Niagara Falls, Ont., will install generators of 10,000 h.p. capacity, which will be placed in the new station of the Niagara Falls Power Co., over wheel-pit No. 2. There will be eleven of them, giving a total capacity of 55,000 h.p.

Gordon, Ironside & Fares have purchased from William R. Perrin & Co., Toronto, a hydraulic press and also a complete lard refinery, comprising all the

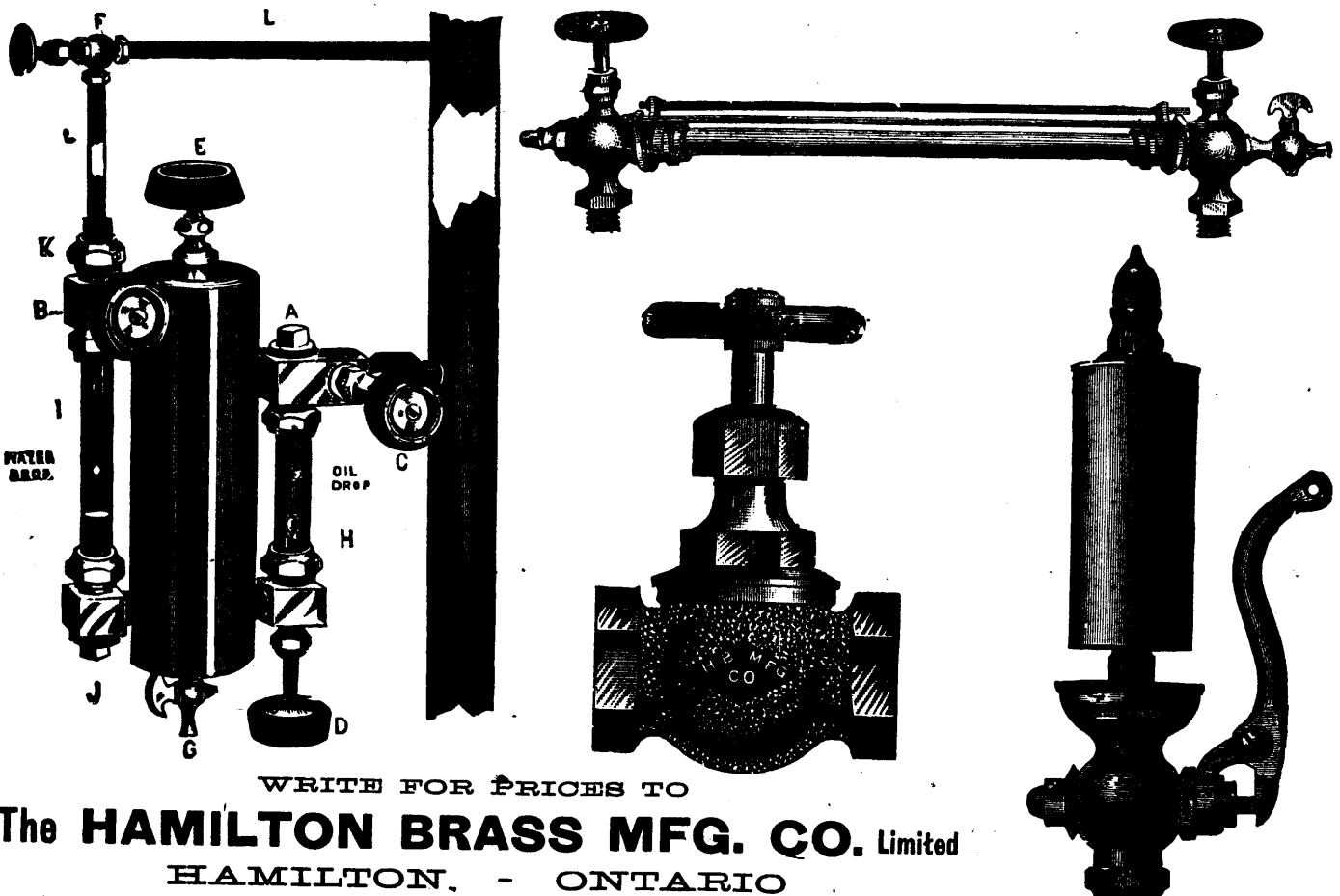
latest improvements in this class of machinery, which they are adding to their abattoir industry at Winnipeg Man.

The Laurie Engine Co., Montreal, has the sole agency for planished shafting, shapes, etc., and carry stock of all sizes. By one pass through the dies, the bars are brought to exact dimensions specified, and with a bright smooth surface. On the further operation of automatic straightening they are given an exceedingly fine polish by the action of planishing rolls. Bars finished by this method are very largely increased in tensile, transverse and torsional strength, in consequence of the compression producing a considerable increase in density at and near the surface. The consumption of these bars is much larger for use in machine manufacture than for power transmission. A few of its many uses are for machine shafts and rods, valve stems, pump and piston rods, engine and elevator guides, screw rods and bicycle hub stock, etc. For further information apply to the company as above.

The new planing mill of Messrs. Rhoades, Curry & Co., Amherst, N.S., is nearing completion. It is to be thoroughly equipped with automatic fire extinguishing apparatus.

The Pacific Coast Lumber Co., Coal Harbor, B.C., has erected a new lumber and shingle mill at that place.

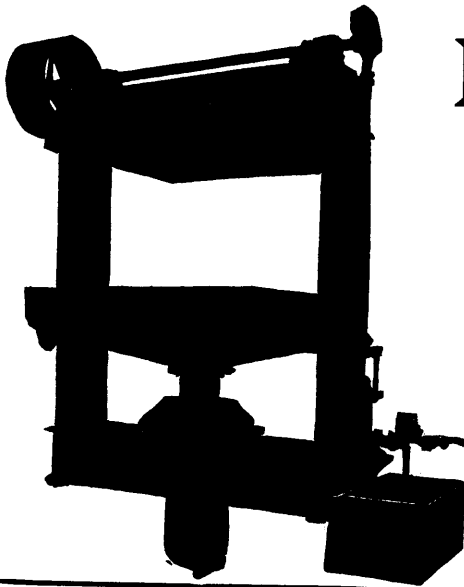
The new mill of the Central Milling Co. at Peterborough, Ont., has been completed. The cost was about \$15,000.



WRITE FOR PRICES TO

The HAMILTON BRASS MFG. CO. Limited  
HAMILTON, - ONTARIO

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.



# Hydraulic **PRESSES**

We Build Presses  
for...

**PRESSING VENEERS  
TANNERS' USES  
BALING, Etc.**

SEND FOR  
CATALOGUE  
AND PRICES

## William R. Perrin & Company

TORONTO, - CANADA

Wm. Thoburn, Esq., Almonte, Ont., will build an addition 40 x 35 feet two stories high, to his woolen factory.

The Simcoe Wool Stock Co's buildings, Simcoe, Ont., were destroyed by fire March 28. Loss about \$2,500.

The Ross Rifle Co., Ottawa, has been incorporated with \$2,000,000 capital to manufacture guns, rifles, ammunition, ordnance, etc. The incorporators include Sir Thomas Shaughnessy, D. D. Mann and Frederic Nicholls, Toronto.

The following rebates were paid on agricultural implements exported from Canada for the fiscal year ending June 30, 1901:—Massey-Harris Co., Toronto, \$49,781; Verity Plow Co., Brantford, \$3,166; Noxon Bros. Mfg. Co., Ingersoll, \$1,361; J. W. Mann Mfg. Co., Brockville, \$265; Peter Hamilton Mfg. Co., Peterborough, \$62; total, \$54,636.

The Howell Lithographing Co., Hamilton, Ont., will erect an additional factory at that place.

Messrs. Pugsley, Dingman & Co., are making a 140 x 70 feet addition to their soap works at Toronto Junction, Ont., at a cost of about \$10,000. The additional plant will include two massive kettles, each with a capacity of 260,000 pounds. The kettles were made by the Fulton Iron Works, Toronto.

Alderman James Davidson, Ottawa,

will rebuild the Hotel Cecil, which was recently destroyed by fire.

The Ontario Power Co. has commenced work at Niagara Falls, Ont. The plans of the canal by which power is to be developed call for cutting close to the famous Table Rock House and it is possible this old landmark may have to be removed.

The new station of the Algoma Central Railway Co., at Sault Ste. Marie, Ont., will cost about \$60,000.

Messrs. Rhodes, Curry & Co., Amherst, N.S., have received an order from the Canadian Pacific Railway Co., for 10,000 box cars.

The Grand Trunk Railway Co., have given an order to their own works for 25 passenger locomotives and 100 coaches and a number of freight cars, representing a cost of about \$600,000.

The A. R. Williams Machinery Co., Toronto, have sent us their Stock List No. 44, having reference to steam, hot air, gasoline and other engines; dynamos and motors; boilers; damper regulators; steam pumps, condensers, water wheels and motors; wood-working machinery; stave, heading, hoop, barrel, butter tub, pickel and spoke machinery; saw mill machinery; wood yard and laundry machinery; iron working machinery. blowers and fans; mining machinery;

rock drills, etc. Many of these machines are illustrated, and all of them are fully described.

The Reese-Hammond Fire Brick Co., Bolivar, Pa., have sent us another handsome office calendar, Indian series, this one showing half tone of High Horse, a noted Sioux chief. These calendars are issued quarterly, the one before us being for April, May and June.

The Polson Iron & Shipbuilding Co., Toronto, are constructing a composite steel yacht for a New Yorker, which will be 63 feet long, 9 foot beam, and a draught of 3 feet, 6 inches. It is being fitted up with 60 h.p. engines, and will have a speed of twelve miles. The cost will be about \$7,000.

Messrs. Medler & Arnot are converting the steamer Arctic into a steam dredge for the purpose of dredging Toronto harbor.

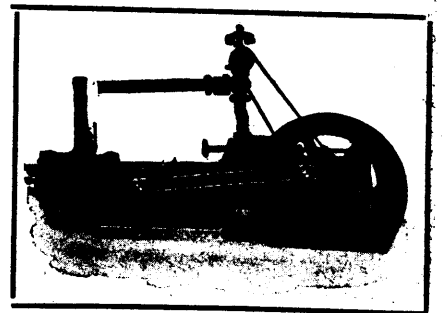
The London Brass Works Co., London, Ont., are about doubling the size of their work. Plans are out and the contract will be let in a day or two. The enlargement will be a solid brick structure. Business is evidently booming.

Messrs. John M. and Adam Taylor, general manager and assistant manager, respectively, of the Dominion Radiator Co., Toronto, have resigned, to enter into the foundry business in Guelph, Ont.

## BOILER, RAILWAY and MACHINE SHOPS CONTEMPLATING THE USE OF PNEUMATIC TOOLS

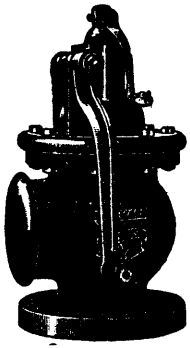
WILL DO WELL TO COMMUNICATE WITH US BEFORE  
INSTALLING PLANT

SEND FOR OUR CATALOGUE OF **AIR COMPRESSORS** ALL STYLES AND SIZES



**CANADIAN RAND DRILL CO.** Montreal and Sherbrooke

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.



A  
VALVE  
YOU  
CAN  
RELY  
ON  
  
SEND  
FOR  
PRICES

## CROSBY STEAM APPLIANCES EXCEL

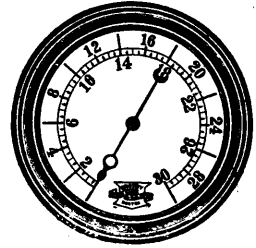
Steam Engine Indicators.  
Recording Gages.  
Revolution Counters.  
Pressure and Vacuum Gages.  
Lubricators, etc.



Stationary and Marine Valves.  
Water Relief Valves.  
Blow-off Valves.  
Globe and Angle Valves  
Single Bell Chime Whistles.  
SEND FOR CATALOGUE

**CROSBY STEAM GAGE and VALVE CO.**  
BOSTON, NEW YORK, CHICAGO, LONDON

A TRUTHFUL GAGE  
IS THE  
ONLY GOOD GAGE



A deputation of about 50 gentlemen from various parts of Canada, representing the boot and shoe industry, waited upon the Dominion Government a few days ago, and asked for an increase in the duty upon boots and shoes from 25 per cent. to 35 per cent. It was argued that the Canadian boot and shoe industry is being greatly interfered with by importations from the United States, which are on the increase. The importations for 1897 were \$320,000; for 1898, \$378,453; for 1899, \$451,376; 1900, \$541,665, and 1901, \$642,790. For the current year there is a likelihood that the importations will be about \$900,000. The amount of capital invested in the manufacture of boots and shoes is approximately \$4,540,000 while the industry gives employment to 10,140 hands. The duty on raw materials entering into the manufacture of boots and shoes is from 15 per cent. to

35 per cent., while on the manufactured article the duty is 25 per cent. This, it is claimed, leaves but a small margin for the protection of the Canadian manufacturers. The manufacture of boots and shoes is carried on in all the Provinces of Canada, resulting in severe competition which will always exist, so that the consumer, it was argued, will always have a safeguard against high prices in Canada. The United States manufacturers were able to undersell those in Canada because they manufactured for a market of 75,000,000. Moreover, they can specialize and run large factories, devoted to one class of goods, whereas the Canadian manufacturer has to produce many different varieties.

The car repair shops of the Canada Atlantic Railway Co., Ottawa, were destroyed by fire March 21. Loss about \$20,000.

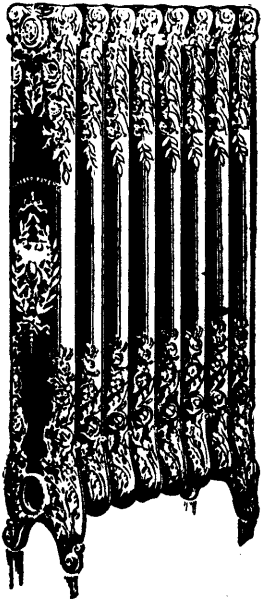
The saw mill of the Northern Lumber Co., at Fish Creek, Man., has been destroyed by fire.

The Frost & Wood Co., Smith's Falls, Ont., will increase their capital from \$850,000 to \$1,500,000.

The McGregor, Banwell Fence Co., Windsor, Ont., has been incorporated with \$60,000 capital, to manufacture woven wire fencing, etc. The provisional directors include William McGregor, Henry Banwell and G. M. McGregor, all of Windsor.

The Great Northern Railway Co., Quebec City, has issued a folder, printed on paper made of the first dry ground wood pulp manufactured by the Belgo-Canadian Pulp Co., at Shawinigan Falls, Que.

The Montreal Lumber Co., Montreal, will increase its capital to \$100,000.



Send for Catalogue on  
up-to-date Heating.

## WARM UP YOUR

# Buildings

WITH

# "Safford Radiators"

They are the triumph of the century.  
In demand the world over.

Made in countless sizes and every possible shape, and in a variety of styles, plain and ornamental, sufficient to suit the most exacting.

## THE DOMINION RADIATOR CO., Limited,

• TORONTO

HEAD OFFICE, - - DUFFERIN STREET

# THE BEST PIPE THREADING and CUTTING-OFF MACHINES

Are Made by the **ARMSTRONG MFG. CO., BRIDGEPORT, CONN.**

Also Manufacturers of a FULL LINE of **ADJUSTABLE STOCKS and DIES** and Water, Gas and Steam Fitters' Tools.  
 Send for Catalogue 27. Factory: BRIDGEPORT, CONN. New York Office: 139 CENTRE STREET.

The Canada Wood Specialty Co., Orillia, Ont., is installing a 125 h.p. engine, and boiler of 150 h.p. capacity.

The Rat Portage Lumber Co. will erect a large addition to their mills at Rainy River, Ont.

The Algoma Commercial Co., Sault Ste. Marie, Ont., has purchased the saw mill plant of William Peter, Bay City, Mich., and have removed it to the Soo. The new plant will have a capacity of 130,000 feet per day, and will be equipped with band saws.

D. H. Campbell, Kamloops, B.C., is erecting a sash and door factory at that place.

The Canada Wood Specialty Co., Orillia, Ont., has built a new veneer factory, in which they will introduce a novelty in the shape of a veneer nail keg, and also manufacture large veneer baskets.

The Orillia Export Lumber Co., Orillia, Ont., will build a box factory.

The Broadbent Turning Co., Broadbent, Ont., has been formed to manufacture timber and wood. R. H. Stewart, Toronto, is president, and J. H. Patterson, manager.

The Ogilvie Milling Co. has been sold to C. R. Hosmer, Montreal, and F. W. Thompson, Winnipeg, Man. The deal is understood to involve between three and four million dollars.

The annual meeting of the amalgamated furniture manufacturing companies included in the Canada Furniture Manufacturers, Limited, occurred in Toronto last week. The Secretary, Mr. J. R.

Shaw made a statement of the development during the year. Large additions were made to the Simpson factory at Berlin, and to the Hall factory at Wiarton; increased facilities were provided for the Orr factory at Stratford, the Hahn factory at New Hamburg, and the Burr factory at Guelph, while a fine new building was completed for the Siemon factory at Wiarton. The following directors were elected:—Messrs. Robert Kilgour, Toronto; W. R. Hobbs, London; Thomas Bell, Wingham; J. S. Anthes, Berlin; J. R. Shaw, Toronto; E. F. R. Zoellner, Mount Forest; R. Harmer, John Firstbrook, and A. Hutchison, Toronto. At a subsequent meeting of the directors Mr. Robert Kilgour was elected president, Mr. W. R. Hobbs, vice-president, and Mr. J. R. Shaw, secretary-treasurer (re-elected).

Tottenham, Ont., has passed a by-law to raise \$6,000 to establish an electric light plant.

The by-law to grant a loan of \$12,000 to the Woodstock Wagon Co., Woodstock, Ont., was defeated.

The Wolverine sugar factory at Benton Harbor, Mich., will be removed and re-erected at Berlin, Ont.

The Milner-Petrolea Wagon Co., Petrolea, Ont., has been incorporated with \$100,000 capital, to manufacture wagons, sleighs, etc. The provisional directors include J. E. Armstrong, William English, and J. A. Mackenzie, all of Petrolea.

Windsor, Ont., will have a new public library building, to cost about \$20,000.

The Ogilvie Milling Co., Winnipeg, Man., has made a shipment of 35,000 barrels of flour to South Africa. This is said to be the largest single sale of flour ever made in Canada.

The new cleaning and drying elevator to be erected at Fort William, Ont., will consist of three portions, the handling plant, a building 96x90 feet, 160 feet high, with a storage capacity of 200,000 bushels, the drying house, 96x90 feet, two stories high. The power plant will be installed in a separate boiler house, 125x50 feet.

The ratepayers of Woodstock, Ont., will vote on a by-law to loan the Woodstock Wagon Co. \$12,000.

The Montreal Chamber of Commerce will erect a \$200,000 building.

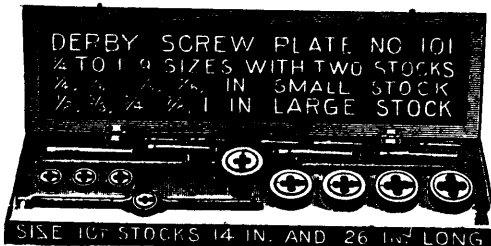
A building of the Polson Iron Works, Toronto, was destroyed by fire March 25. Loss about \$15,000.

The Moore Cement Mfg. Co., Miami, B.C., is applying for incorporation. The applicants include Wesley Moore, Miami, L. S. Vaughan, Selkirk, N.W.T., and John Haffner, Winnipeg, Man.

The fertilizing works of the W. A. Freeman Co., Hamilton, Ont., were damaged by fire to the extent of about \$5,000.

The Delhi Fruit & Vegetable Canning Co., Delhi, Ont., has been incorporated with \$100,000 capital, to manufacture canned fruits, vegetables, meats, etc. The provisional directors include W. A. Ferguson, W. R. Kent, and Edwin Morgan, all of Delhi.

The universal satisfaction given by our **DERBY and REECE SCREW PLATES**, cutting from 1/16 to 1/2 inch, including all the machine screw sizes, has created a demand for a plate made on the same principle, to cut bolts to 1 inch in diameter. To meet this demand we have brought out these sizes.



**BICYCLE SCREW PLATES, REECE SCREW PLATES, DERBY SCREW PLATES, BLACKSMITH'S STOCKS AND DIES, BLACKSMITH'S IMPROVED SCREW PLATES, HAND TAPS, MACHINE TAPS, PIPE TAPS, EVERY KIND OF TAPS AND DIES.**



**BUTTERFIELD & CO., - Rock Island, Que.**

**RICE LEWIS & SON, LIMITED, Hardware and Metal**

**MACHINIST TOOLS, PIPE FITTINGS, STILLSON AND TRIMO WRENCHES. COMPLETE STOCK OF STOCKS AND DIES. PIPE VICES. STEAM PIPE.**

**CORNER KING AND VICTORIA STREETS, - - - TORONTO.**

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# THE GEE ELECTRICAL ENGINEERING CO.

11 COLBORNE STREET, TORONTO.

LIMITED

WE have a Factory equipped with the very latest and best machines for the building of

## Dynamos, Motors,

AND ALL..... ELECTRICAL APPLIANCES

We have every facility for repairing. We guarantee all our work. We keep a large staff of competent electricians and wiremen, and are in a position to do Electrical Work of every description. We wire Residences, Business Houses, Factories, etc. We have on hand a large stock of

ESTIMATES AND PLANS SUBMITTED.

Electrical Fittings, Arc Lamps, Telephone Bells, Etc.

### THE BUFFALO FORGE CO.

The North-West Steamship Co. have been making rapid progress on the interior changes of their crack passenger boats North-West and Northland. These changes, although the steamers have only been in commission four years, include new boilers of the Scotch marine type, also many changes of the interior fittings, at an estimated cost of nearly half a million dollars. Contracts for the most of this work have been awarded. On each boat there will be duplicate generating sets for electric lighting, consisting of two horizontal tandem compound engines made by the Buffalo Forge Co., direct connected with General Electric Co. marine type 75 k.w. generators. The engines are of the Buffalo Forge Co's latest type, and specially designed for this contract, the space available being limited. As the boats are to be put in commission at the near approach of lake navigation, the builders have agreed to deliver the engines in an extremely short time.

In addition to the above, these boats are being fitted with complete sets of the

most improved ventilating apparatus for maintaining the air in all portions of the vessel uniformly cool and pure at all times. Six Buffalo steel plate fans with direct connected General Electric Co. motors will be installed in each steamer, with an elaborate network of galvanized iron ducts for delivering the air.

### CANADA'S MINERAL PRODUCTION.

The mineral production of Canada during the year 1901, according to the preliminary statement of the geological survey, was valued at \$69,407,031, of which \$42,834,000 was metallic and \$26,282,000 non-metallic. The growth is equivalent to about 8 per cent. over that of 1900—a rather moderate increase compared with what recent years have shown. There were various causes for this; a drop in the gold product of the Yukon and protracted labor troubles in British Columbia being among the number. The following from the records of the survey show how the industry has developed:

1886.....	\$10,221,255
1890.....	16,763,353

1896.....	22,584,513
1900.....	64,488,037
1901.....	69,407,031

Gold, as a result of Yukon discoveries, occupies the first place, with \$24,462,222, or more than a third of the whole; coal, with a value of \$14,671,122, comes next. The metallic minerals, aside from gold, show a comparatively small figure in the table, all coming behind building materials in the total of their production; pig iron contributing only \$1,212,113 from the product of home ore. Some of the branches of the industry have been established on a large scale only during the past few years. The values of the various products were:

Description.	METALLIC.	Value.
Copper.....		\$6,600,104
Gold: Yukon.....		18,000,000
All other.....		6,462,222
Iron ore (exports).....		762,284
Pig iron from Canadian ore..		1,212,113
Lead.....		2,199,784
Nickel.....		4,594,523
Silver.....		2,993,668

Total metallic.....\$42,824,698

ESTABLISHED 1823.

## WILSON BROS. BOBBIN CO., LIMITED

(1900)

LARGEST MAKERS IN THE WORLD

45 GOLD MEDALS AND DIPLOMAS



## BOBBIN AND SHUTTLE MANUFACTURERS



Address, - CORNHOLME MILLS, TODMORDEN

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"WILSON'S, CORNHOLME,"  
ABC and A1 Codes.

BRANCH WORKS—LIVERPOOL AND ST. HELENS

Office and Showrooms—14 Market Place, Manchester.

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## DEAN BROS.

Brass Founders

AND

... Finishers ...

Phosphorine Babbitt Metal

Copper and Aluminum  
Castings a specialty.

184 RICHMOND ST. WEST,  
TORONTO.

NON-METALLIC.	
Actinolite .....	\$3,126
Arsenic .....	41,676
Asbestos and Asbestic .....	1,186,434
Chromite (exports) .....	25,444
Coal .....	14,671,122
Coke .....	1,264,360
Corundum .....	53,115
Feldspar .....	4,710
Fire clay .....	5,920
Graphite .....	28,880
Grindstones .....	55,690
Gypsum .....	340,148
Limestone for flux .....	183,162
Manganese ore (exports) .....	4,820
Mica .....	160,000

Mineral pigments :	
Baryta .....	3,842
Ochres .....	16,735
Mineral water .....	100,000
Moulding sand .....	29,240
Natural gas .....	312,359
Peat .....	660
Petroleum .....	953,415
Pyrites .....	113,044
Salt .....	262,328
Talc .....	842

Total ..... \$19,821,072

Structural materials and clay products :

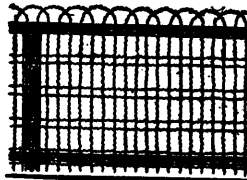
Cement—Natural rock ..	\$94,415
Portland .....	535,615
Granite .....	155,000
Pottery .....	200,000
Sands and gravels (ex-ports)	117,465
Sewer pipe .....	250,115
Slate .....	9,980
Terra cotta, pressed brick, etc.	278,671
Building material, including bricks, building stone, lime, tiles, etc..	4,820,000

Total structural materials and clay products .....	6,461,261
Total all other non-metallic .....	19,821,072

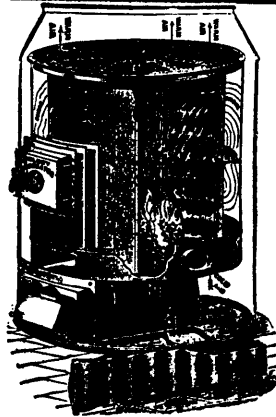
Total non-metallic .....	26,282,333
Total metallic .....	42,824,698
Estimated value of mineral products not returned .....	300,000

Grand total ..... \$69,407,031

In silver, while the increase in quantity



**Page Metal Ornamental Fence.** We now make ornamental, very showy and surprisingly cheap. It is just what is wanted for door yards, division fences in town lots, grave yards, orchards, etc. It is 20 cts. PER RUNNING FOOT. Just think of it. Let us send you full particulars. We also make farm fence, poultry netting, nails and staples.  
The Page Wire Fence Co., Limited, Walkerville, Ont. 3



**YOU SHOULD CONSIDER** what System will give you the best from an **ECONOMICAL** and **HEALTHFUL** Standpoint. By using

**KELSEY CORRUGATED WARM AIR PATENTED GENERATOR**

**You Are Assured of** Most Heat with Least Air; Good Ventilation; Cool Cellar; Fuel; Better Quality of or Smoke; All Rooms Warm at All Times.

If interested, write us when we will send you descriptive printed matter, and arrange to have a competent and practical heating man call and give you an estimate.

**The JAMES SMART MFG. CO., Limited**  
Exclusive Makers for Canada. **BROCKVILLE, ONT.**

**“SCIOTO” FIRE BRICKS**

are the best. WHY NOT USE THEM ?

More extensively imported into Canada than any others made in the United States. One million now sold for Spring delivery to Ontario. Special inducements. Write to-day.

MANUFACTURED BY

**THE SCIOTO FIRE BRICK COMPANY, - Sciotoville, Ohio, U.S.A.**

One of the oldest firms in the States

Canadian Representative: **STANYON ENGINEERING CO., 402 McKinnon Bldg., Toronto, Ont.**

Established 1834.

Incorporated 1900.

**The J. A. Gowdey Reed and Harness Mfg. Co.**

Manufacturers of

**LOOM REEDS FOR SILK, COTTON, WOOL AND LINEN WEAVING,**

Metal Reeds a Specialty.

Reeds for Carpet Weaving.

Reeds for Wire Weaving.

**40 CLIFFORD STREET, PROVIDENCE, R.I.**

**BROWN & CO.**

Manufacturers of

Square and Hexagon

**HOT PRESSED NUTS.**

**PARIS, - ONT.**



**Trimo Giant**



**This Chain Pipe Wrench**

has interchangeable jaws. Improved method of holding and releasing chain. No locking. Send for catalog.

**TRIMONT MFG. CO., Roxbury, Mass., U.S.A.**



Capacity 3-32 to 1 1/4 inches.

Style "K"

The "NEW YANKEE"

**Drill Grinder**

SAVES 50 PER CENT. OF TIME IN ADJUSTMENTS

**COMPLETELY SELF-CONTAINED**

OUR machines require no wrench, measuring instruments or gauge saws. We have entirely done away with them. Any amount of clearance desired can be obtained instantly. Drills can be ground to do more and better work. Send for Catalogue showing 10 styles, and full explanation of machines grinding from No. 60 to 5 inches.

**JOHN LUMSDEN & CO., 375 St. James St. MONTREAL**

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is fair, there is less to record for the value on account of the lower prices.

In lead, the decrease is to be attributed to the difficulties encountered by the operators of the British Columbia mines, which produced nearly all the output. Prices were lower and trouble was found in profitably marketing the ores in the United States.

The low prices for copper, commencing as they did in the latter part of 1901, hardly affected the figures of production. The output showed a very large increase over that of 1900. In the Sudbury district of Ontario, the amount of copper contained in the shipments of matte was greater by over 25 per cent.

An increase of nearly 30 per cent. in production of nickel is recorded. The price, which from 1895 to 1898 ranged from 33 to 36 cents per pound, was quoted in the New York market throughout the year 1901 at from 50 to 60 cents per pound.

Owing to the exploitation of the large deposit of iron ore of the Helen mine at Michipicoten, in Ontario, a considerable growth is evident in the country's production of this mineral. Some of the product goes to furnaces in Ontario, but the larger part is exported. Only the exports are credited in the table under this heading, the rest appearing under the item "pig iron." Adding to the exports the 156,613 tons of Canadian ore, etc., charged to Canadian furnaces, there is shown a total production of 462,812 tons.

In the production of pig iron in Canadian furnaces, an increase of over 184 per cent. in quantity is recorded, while the estimated production from Canadian ore alone increased nearly 135 per cent. These gains are due in a large measure to the completion of the furnaces of the Dominion Iron & Steel Co. at Sydney, Nova Scotia.

The value of the steel product is not included in the general table. There were made during the year 41,948 tons (of 2,000 pounds each) of steel ingots, etc., all of which was worked up into bars, etc.

The figures of production for cement represent the sales and shipments only. Some 70,000 barrels remained in stock at the close of the year.

#### A HOME INDUSTRY.

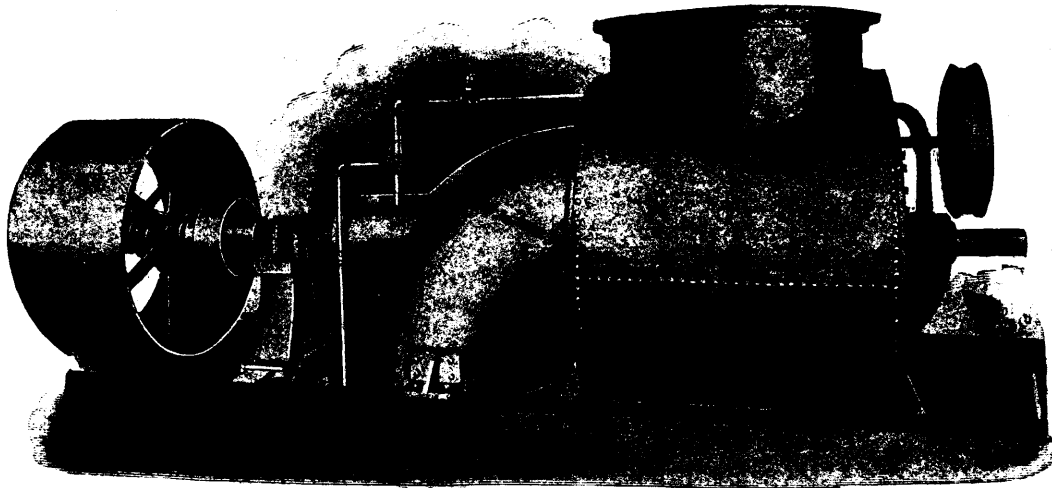
The Canadian Portland Cement Co., Deseronto, Ont., have favored us with a most beautiful and interesting brochure, having reference to Portland cement. The book is really a work of art, being printed in the best possible style, of excellent materials, and illustrated throughout with half-tone views of buildings and surroundings where cement is made, and of buildings, railway bridges and structures, canal locks and approaches, etc., in the construction of which the cement made by this company is an important constituent part.

The opening chapter of the book recites the history of Portland cement, in

which we are told how largely we are indebted to Mr. John Smeaton, of England, for our present knowledge of cements, for in 1756 he made discoveries of improvements in limes and cements, which were afterwards published in his "Narrative of the Building of the Eddystone Lighthouse." He was the first to discover that a proper admixture of carbonate of lime and clay was the real cause of hydraulicity; and the Eddystone Lighthouse stands to-day not only as a guide to "Ships that pass in the night," but also a monument to mark the starting point in all that we know concerning hydraulic cements.

A patent was granted in 1824 to Joseph Aspdin, a bricklayer of Leeds, England, for the manufacture of Portland cement. In the course of his experiments he hit upon a mixture of lime and clay, which, when burnt at a high temperature and ground, formed, with water, a cement so much harder than anything before known, as to surprise him greatly; and he gave his new compound the somewhat misleading name of Portland cement. He chose this name in consequence of its fancied resemblance in point of color and texture to the oolithic limestone on the island of Portland, which was well known and in great favor as a building stone in England at that time.

The total European production of Portland cement for the year 1900 was estimated to be the equivalent of 44,000,000 barrels, of which quantity Germany produced about 15,000,000 barrels, the pro-



The above engraving represents a style of setting sometimes adopted in connection with our

## CROCKER PATENT TURBINE

Under some conditions it is particularly well adapted to Pulp or Paper Mill use, also for operating Belt Driven Dynamos in Street Railway and Lighting Plants.

Remember, we undertake contracts for complete plants, built and installed, thus insuring to the purchaser uniformity, perfect adaptation of parts, and a single responsibility to be considered.

Our Bulletin No. 200 will interest owners of water power and prospective users. Free on request.

**THE JENCKES MACHINE CO.,**

28 Lansdowne Street,

SHERBROOKE, QUE.

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# COAL JAS. H. MILNES & CO. COKE

WHOLESALE DEALERS IN  
**Best Grades of STEAM COALS.**  
**Best Grades of BLACKSMITHS' COALS.**  
**Best Grades of FOUNDRY COOKES.**  
 Shipments made direct from Mines to any point in Canada. Write for quotations.

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duction being considerably in excess of the demand.

The growth of this industry in Canada has kept well in pace with that of the other leading industries of the Dominion. In the year 1890 not more than 30,000 barrels of cement could have been manufactured in this country, while the consumption during that year could not have exceeded a total of 100,000 barrels. In the year 1901 the consumption in Canada must have approximated very close to 1,000,000 barrels, the greater part of which was made by Canadian manufacturers.

There are many features of the book which render it a most useful Hand Book not only to manufacturers of cement, but to contractors and builders, and to all concerned in work where cement is used. Included in these are extracts from the Report of the Board of Engineers, United States Army, in the testing of hydraulic cement; extract from a paper read before the Engineering Society of the School of Practical Science, Toronto, by N. J. Butler, M. Can. Soc. C. E., in 1898; instructions for making concrete; and for laying walks, cellar floors, etc.; specifications for mixtures for cement work.

The brands by which the products of the Canadian Portland Cement Co. are known are "Rathbun's Star" and "Citadel," the capacity of production being 500,000 barrels per year. Head office of company at Deseronto, Ont. The Rathbun Co., Toronto, and St. Lawrence Portland Cement Co., Montreal, being sales agents.

"Home Industry," the brochure of which we write, was printed by Canadian workmen, with Canadian-made inks, on Canadian-made paper.

### THE BELLEVILLE ASSAY OFFICE.

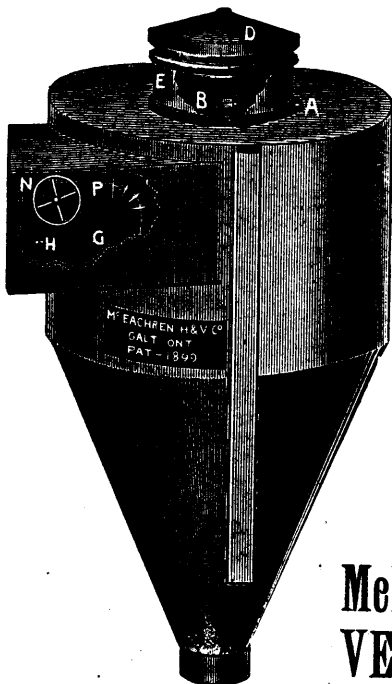
J. Walter Wells, Esq., analyst, assayer and chemist in charge of the Provincial Assay Office, at Belleville, Ont., has sent us a circular in which he offers his services in the determination of tests in connection with minerals of Ontario and their products; and he states that his laboratory is conducted by the Bureau of Mines of Ontario as an aid to the Mining industry of the province, the fees charged barely cover cost and reports. Prof. Wells will also undertake special technical investigations. Sample bags for shipping, and mailing envelopes for crushed ore will be sent on application. Schedule for fees for assays and analyses; information as to ore samples for assay, etc., will be sent by Prof. Wells on application.

### THE LAURIE ENGINE CO.

The Laurie Engine Co., Montreal, which has for years been well known as one of the principal builders of large engines in Canada, has just had an important change made in its control. The majority of the old board of directors having retired, the company's affairs are now under the direction of a new board, consisting of Messrs. C. E. L. Porteous,

Wm. Yuile, F. L. Wanklyn, C. W. Davis, W. G. Ross, Walter H. Laurie and John Laurie. Mr. Porteous has been chosen president and Mr. Yuile as vice-president. The change, will, without doubt, result in a large extension of the business, as on account of the extensive connections of the new members of the board, it will bring the company into touch with a much larger field. The increased financial facilities afforded will also enable the company to undertake much larger work than before.

The change will also add greatly to the strength of the company. The intimate connection of Mr. Porteous, who is president of the Montreal & St. Lawrence Light, Heat & Power Co., and a director of several of the leading companies in Montreal; and Mr. Yuile, who is president of the Diamond Glass Co., with a large number of Canada's principal financial interests, will lead to a large increase in the financial resources of the company. Mr. Wanklyn, general manager of the Montreal Street Railway, and president of the West India Electric Railway, and Mr. Davis, who is general manager of one of the largest manufacturing concerns in the city, will take an active interest in the mechanical side of the business. There is no change in the other offices, the position of managing director being retained by Mr. Walter H. Laurie, known to be an expert as a steam and mechanical engineer, thus assuring the continued success of the company in engineering matters.



## Dust and Shavings Separators

FOR WOOD REFUSE

The air carrying the refuse enters the separator at the top and whirls around inside. The shavings being heavier than the air are carried by centrifugal force to the outer shell of the separator and they then take up a spiral path for the outlet at the bottom, the air passing out of the opening at the top.

Write us for prices and particulars of Separators, Fans, Etc.

**McEACHREN HEATING and VENTILATING CO., GALT, ONT., CANADA.**

IN THEIR NEW FACTORY . . .

32, 34, 36, 38 and 40

THE . . . DUNDAS STREET

**Electrical Construction Co.**

OF LONDON, Limited

Beg to call the attention of their patrons to their removal to a more commodious and up-to-date factory, where, with improved facilities, they can guarantee even better attention and satisfaction than ever before.

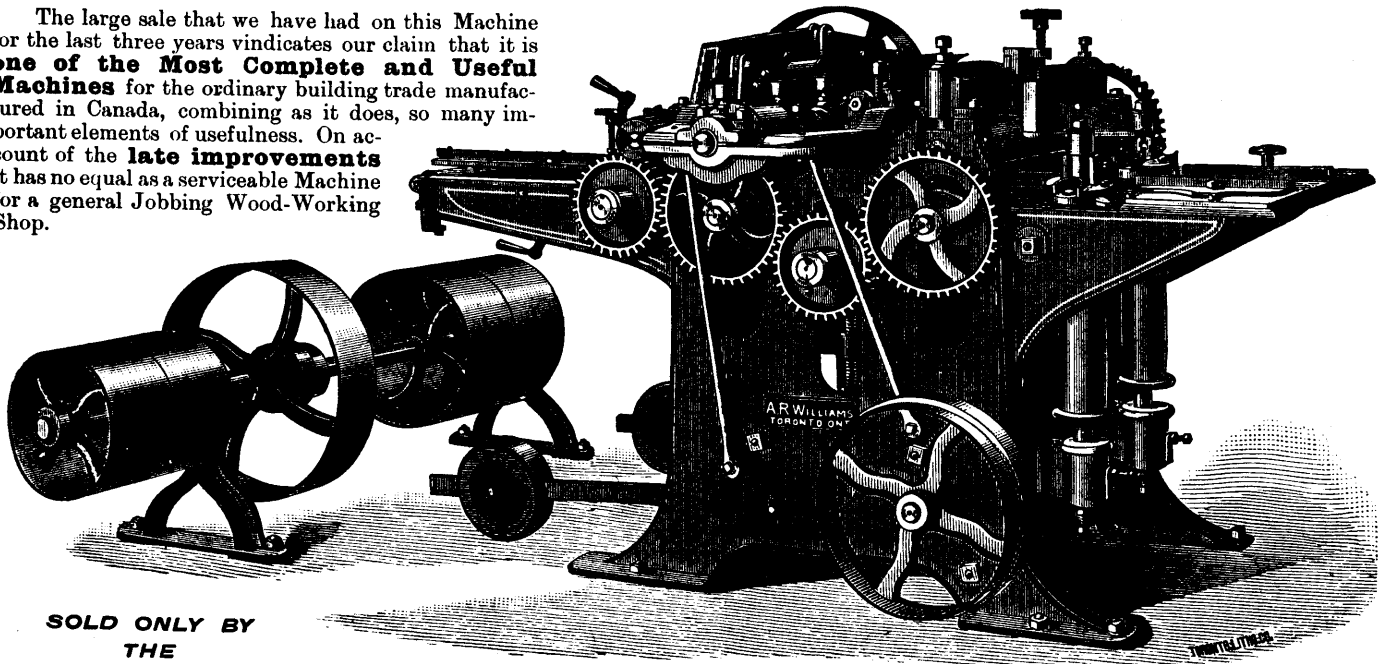
Don't buy before getting their prices, when purchasing Dynamos, Motors, Fixtures or Supplies.

Quotations Supplied on Application.

PHONE 1103

# IMPROVED "ECLIPSE" PLANER, MATCHER and MOULDER

The large sale that we have had on this Machine for the last three years vindicates our claim that it is **one of the Most Complete and Useful Machines** for the ordinary building trade manufactured in Canada, combining as it does, so many important elements of usefulness. On account of the **late improvements** it has no equal as a serviceable Machine for a general Jobbing Wood-Working Shop.



SOLD ONLY BY  
THE

## A. R. WILLIAMS MACHINERY CO., Limited, Toronto

Manufacturers, Importers and Dealers in

**ENGINES, BOILERS AND MILL MACHINERY SUPPLIES**

# SHAFTING

We have the Sole Agency for Planished Shafting, Shapes, etc.

**AND CARRY STOCK OF ALL SIZES**

**PROCESS**—By one pass through the dies, the bars are brought to EXACT DIMENSIONS specified, and with a bright smooth surface. In the further operation of Automatic straightening they are given AN EXCEEDINGLY FINE POLISH by the action of planishing rolls. Bars finished by this method are very largely increased in TENSILE, TRANSVERSE and TORSIONAL STRENGTH, in consequence of the compression producing a considerable increase in density at and near the surface.

Large as is the consumption of these bars for power transmission shafting, its use in machine manufacture is much greater. **Machine Shafts and Rods, Valve Stems, Pump and Piston Rods, Engine and Elevator Guides, Screw Rods and Bicycle Hub Stock,** are a few of its many uses.

Turned Shafts are less strong than cold drawn, for the reason that the strength portion, or outside of the bar, is CUT AWAY. For further particulars and price, address

**LAURIE ENGINE CO. 321 ST. JAMES STREET  
MONTREAL**

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A handsome steel siding for all kinds of building purposes; supplied either Galvanized or Painted.

**OUR ROCK FACED STONE**

is fire and damp proof—resists all weather conditions—is very reasonably priced—and can be so easily applied it gives universal satisfaction.

Find further facts about it in our catalog.

**Metallic Roofing Co., Limited,**  
Wholesale Manufacturers,  
Toronto, - - - Canada.

**OUR METALLIC  
CEILINGS AND WALLS**

Are both artistic and serviceable. Popularly used by practical people everywhere.



Easily applied—most moderate in cost—fire-proof, sanitary and wonderfully durable—with countless designs to select from.

Write us for booklet telling all about them.

**METALLIC ROOFING CO., Limited**  
Wholesale Mfrs. TORONTO, CANADA.



**Eastlake  
Steel Shingles**

either Galvanized or Painted

**Are Always** They are more economically durable and quicker to apply than any others, fitting accurately—and therefore most easily laid.

**Reliable** They have been thoroughly tested in all kinds of climates, invariably proving **Fire, Lightning, Rust and Weather Proof.**

If you're building, make sure of satisfaction by ordering **EASTLAKES** for the roof—fullest information if you write.

**Metallic Roofing Co., Limited,**  
WHOLESALE MFRS., TORONTO, CANADA.

**THE CANADIAN PULP TRADE.**

The vast proportions to which the wood pulp trade of the Dominion has already attained, and the enormous future that still lies waiting development, is hardly realized by Canadians, but it is very clearly outlined in a little brochure by Mr. George Johnson, the Government statistician, the book bearing the marks of careful study and proper grasp of the subject, like all from the same pen.

In the census of 1871 there were no pulp mills mentioned, while in 1881 there were only 5 mills employing 68 people. But in 1891 there were 24 mills, employing 1,025 people, and with an output valued at \$1,057,810. Last year pulp to the value of \$2,002,120 was exported, apart from what was consumed by our paper mills in Canada. The mills now in operation having a capacity of 382,000 tons per annum, with an invested capital of between \$15,000,000 and \$20,000,000 against \$2,901,000 in 1891.

Such an extraordinary increase may seem to foretell a supply in excess of the demand, but Mr. Johnson says: "If all the mills in Canada, built and running, and those under construction, were running at their full capacity, they could not supply the demand of Great Britain alone for wood pulp. There is also a large demand in the United States for wood pulp."

As such is the situation as far as the market for wood pulp is concerned, Canada need not dread over-production. How about the supply of raw material? Is there any danger of the supply of timber being too rapidly exhausted?

Again turning to the little pamphlet, "In Canada there is practically an unlimited supply of wood suitable for pulp of the highest character." The reports of the geological surveys and of every department show that forests of spruce

exist in every part of the Dominion, and the Canadian spruce is already recognized as being the very best for the manufacture of pulp. According to the latest reports, from 38 to 40 per cent. of the area of the Dominion is covered with woods and forests; if half of this area is spruce, as seems likely, there are 450,000,000 acres of spruce to work upon. Upon the usual basis of working, this would mean that there are 4,500,000,000 tons of wood pulp in sight in Canada, and, allowing Canada to supply all the demands of Great Britain and the United States, there is 50 years supply. But, as Mr. Johnson further pointed out, spruce grows to a proper size in 30 years, so that long before the forests existing to-day were used up, new trees would have attained a growth sufficient to be used in the pulp mills.

That the new industry is increasing the value of the Government lands is seen in the difference in price, spruce limits bringing only \$8 per mile in 1892, while in 1899 the price was \$150.

From these few figures, says the Commercial Gazette, it can be seen what an enormous industry there is in Canada in the manufacture of wood pulp and what a source of wealth lies on the spruce woods which have been so poorly valued up to the present, and another means of turning the natural resources of the country into wealth is open in Canada.

**CANADIAN PORTLAND CEMENT.**

A large and influential delegation of representatives of Canadian manufacturers of Portland cement waited upon Premier Laurier and other members of the Dominion Government a few days ago asking for certain modifications in the tariff as affecting their industry.

There is over \$4,000,000 invested in the

production of cement, and the industry gives employment to some 2,000 persons. The total capacity of the works at present in operation and now under construction is about 1,100,000 barrels per year. It is claimed that owing to their immense plants, the American manufacturers can produce on a larger scale and more cheaply than the Canadian manufacturers, and they are making a slaughter market of Canada, in which operation they are aided by the freight rates on the other side, which are lower per mile per car by from 50 to 75 per cent. than in Canada. This disadvantage would be to some extent counterbalanced by a readjustment of the duties. The tariff changes asked for will not, it is claimed, enhance the price of cement in this country. Owing to the existence of natural deposits all over the country anything in the form of a combine would, it is claimed, be frustrated by the starting of new works. The Premier inquired whether the output of the factories at present in operation is equal to the Canadian demand, which elicited the reply that the output of the factories in operation or now being built would more than meet the demand. Mr. Tarte announced that as he had found from thorough tests that Canadian cement was the very best in the world all future contracts entered into by the Public Works Department would contain a provision that native cement must be used. The deputation was given an assurance that its views would receive due consideration. Those who composed the deputation were:—Messrs. Allen and Masten, of the Canada Portland Cement Co., Toronto; Messrs. Kennedy & Harrison, of the Imperial Cement Co., Owen Sound; Mr. Lucas, Owen Sound Cement Co.; Messrs. McLaughlin & Campbell, of the Grey & Bruce Portland Cement Co., Owen Sound, Ont.; John Flett, of Toronto, President

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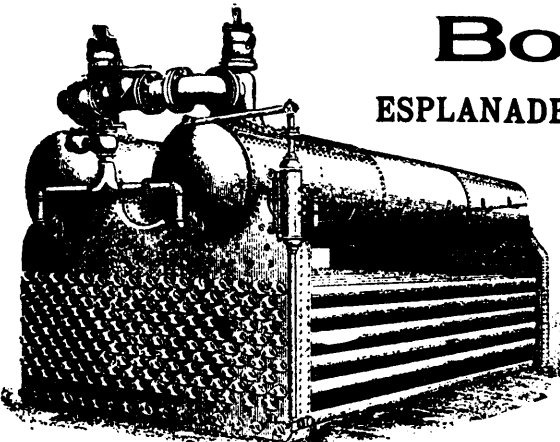
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of the Sun Portland Cement Co., Owen Sound, Ont.; D. Knechtel, of the Hanover Portland Cement Co.; Geo. Kilburn, of the Lakefield Portland Cement Co., and A. F. MacLaren, of the National Cement Co.

**HUDSON'S BAY.**

Hudson's Bay, the Mediterranean of Canada, the most striking geographical feature of North America, was the subject of a lecture and debate at the meeting of the McGill Science Graduates' Society recently. It was a large subject. Hudson Bay is half as large as the Mediterranean Sea—it drains a vast territory, 3,000,000 square miles in area—vast rivers flow into it from the south, east and west; flowing from places as distant as the plains of Minnesota and Dakota. In its waters live undisturbed fish and oil-bearing mammals, along its shores are fine harbors, in the country surrounding it are rich mineral deposits and fine farming lands. But it is a portion destitute of human habitation. White whales, walruses, big as elephants, and fur-bearing animals disport themselves undisturbed in the water. On land there is wealth, with no one to take it away.

"But all this is the Arctic regions," you say. "Not a bit of it," says Dr. Bell, director of the geological survey, Moose Bay is in a latitude further south than London, and the more northern portion of Hudson Bay is at about the same latitude as the north of Scotland. The climate also compares very favorably with that of the same latitude in other portions of the globe. The bay does not freeze across in winter—the winter conditions there being similar to those of the Gulf of St. Lawrence, and

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navigation is possible during four or possibly five months of the year. The Hudson Bay route would bring the great North-West as near to Europe as the city of Quebec. It offers perhaps the best route to the Yukon district, and is the natural route to the great oil fields of the North-West. Gold is there—specimens of gold-bearing quartz have been brought into the Hudson Bay station—pyrites containing gold have been found by the geological survey party, and alluvial gold has been found, according to William Ogilvie, in the valleys. Gypsum, iron, copper, silver and lead are abundantly indicated in many places.

Were the country within the Arctic circle the quality of the soil would be of no consequence. But there are scores of millions of acres upon which profitable stock-raising and farming may be carried on, and it is important to note that the soil observed is rich and productive. In the district south of James Bay, in a district as large as all England, the total population at present is one Scotchman and thirty or forty families of Indians.—*Montreal Witness.*

**OPPORTUNITIES.**

The following enquiries have been received at the offices of the High Commissioner for Canada in London, and at the Canadian Section of the Imperial Institute, London, England.

NOTE.—Those who may wish to correspond with any of these enquirers can obtain the names and addresses by applying to the CANADIAN MANUFACTURER, Toronto. No charge for giving information. When writing refer to the numerals opposite the enquiries, and enclose two-cent postage stamp for reply.

741. A London firm of wholesale and export cabinet makers ask to be referred to Canadian shippers of chair stock, seats, backs, legs, etc.

742. Enquiry is made for the names of one or two parties in Canada open to represent an exporter of groceries, jams, pickles, sauces, etc.

743. An Irish exporter of sponge cloths which can be woven to any pattern and used where cotton waste is employed, at less cost; and of Irish moss, is desirous of finding a market for these goods in Canada, and of being referred to buyers in the Dominion.

744. A commission agent at Newcastle with good connection wishes to hear from Canadian manufacturers desiring representation in that quarter.

745. The manufacturers of certain table dainties are desirous of doing a business with Canada in these goods.

746. A North of England house manufacturing quilts and towels make enquiry respecting the opening that exists for their goods in the Dominion.

747. The agency for a Canadian exporter of wood pulp is desired by a Brussels firm who could take up the representation for Belgium and Holland.



**ELECTRIC LIGHTING**

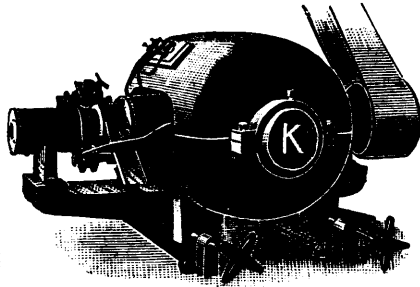
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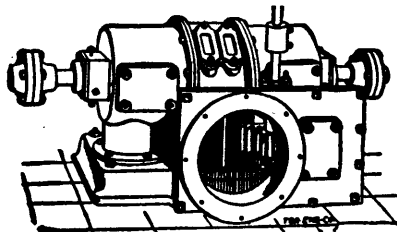
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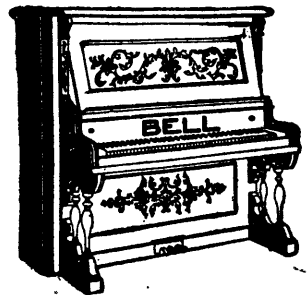
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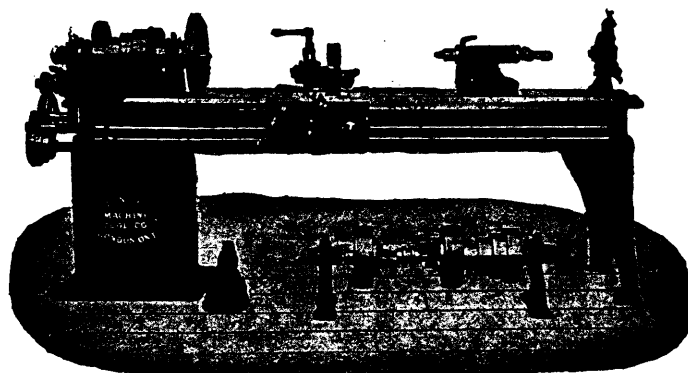
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748. A Canadian firm manufacturing shears, scissors, razors, knives, and other cutlery exclusively from English steel, desires to open up trade in the United Kingdom, in competition with similar articles from the United States and Germany. They will be glad to hear from any reliable commission agents or others who may be interested.

749. A Liverpool firm desires the names of Canadian producers of black ash and basswood boards also of birch chair seats.

750. A Sheffield firm is seeking agencies for the following Canadian goods for the English market:—Bicycles, office furniture (desks, cabinets, etc.), freezers, organs, washing machines, wringers, chairs, clothes pins, enamelled ware and wooden novelties.

751. A firm of dynamo and motor manufacturers are seeking an opening in Canada for their goods.

752. The manufacturers of an adhesive preparation used for labelling on tin are considering the advisability of appointing an agent in Canada, and ask for suggestions.

753. Enquiry has been received from Newcastle for the addresses of the leading Canadian wood pulp mills.

754. A salesman with good connection in the North of England desires to be put in touch with shippers of chilled beef and pork from Canada.

755. A London importer desires to be placed in communication with Canadian basswood mill owners able to ship large quantities of panels for piano-key makers; panels to be 48"x18"x $\frac{1}{4}$ ".

756. Enquiry is made for the names of makers in Canada of silicate cotton for export by a firm who can take large quantities.

757. A firm in London are prepared to undertake the representation of Canadian firms exporting produce, woodenware, office furniture, etc., for the English market.

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The Canada Foundry Co., Toronto, have sent us a circular which explains itself as follows:

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We intend adding largely to our equipment, and will have in this department of our business manufacturing facilities second to none and capable of producing this class of work at minimum cost and of the highest quality.

We will also carry a large stock of finished goods from which we will be in a position to fill orders for standard sizes promptly, and we will endeavor when selecting our stock of raw material to anticipate the requirements of our customers as regards orders for special lines.

We have issued a new price list and discount sheet which we will be glad to supply to those interested, feeling that in price and quality our goods cannot be surpassed, and that should you entrust us with a share of your business, results will be mutually satisfactory.

Special orders for bolts and nuts, or requests for quotations on the same, will always receive prompt attention.

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References kindly permitted to the Editor  
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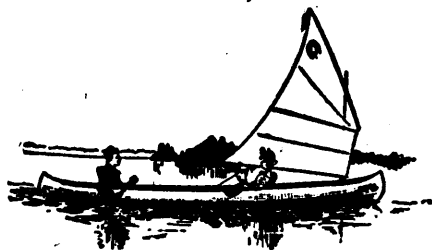
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**MARKETS.**

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Following are reports and observations relating to the markets of Canada and elsewhere, having reference to Hardware, Metals, Paints, Oils and such specialties as are usually handled by jobbers and dealers in such goods. Following these items will be found current market quotations on such goods, and the trade are requested to suggest to the publishers any improvements by which it is believed the quotations may be rendered as correct and valuable as possible.

TORONTO, April 4, 1902.

The first of what is expected will be a series of labor troubles is now attracting the attention of the building trades in Toronto. The painters have demanded 30 cents an hour, or 5 cents per hour advance on the old scale. The employers, it is understood, are willing to give 27½c. per hour, but the men refused to accept this scale, and as a result several hundred men are out of employment.

The carpenters and joiners want an eight-hour-day and 3 cents an hour, and the masters are willing to give a minimum rate of 27½c., and to recognize the eight-hour-day, so far as the men working outside the shops are concerned, but that the nine-hour-day must be the rule for inside hands. The men by a vote unanimously decided that the eight-hour-day must be general, and there is every indication that trouble is ahead. With all the talk of labor troubles, especially in the building line, there is a tendency to hold back on contracts. The outlook is bright for a busy spring and labor men are taking advantage of the condition of affairs to attain their end.

There has been a steady increase in the spring and summer trade in all wholesale departments. The mild weather has imparted a tone of cheerfulness and there is abundant confidence in the future prospects for business. There has been a large movement of heavy goods to lake ports and to the east in anticipation of an early opening of navigation. The values of staple goods continue to be held very firmly. The large increase in the demand for many new lines and the fact that the mills are busy on contracts and have no surplus goods in many departments, have made callers independent and considerably strengthened their position. Country remittances have been satisfactory.

Of interest to shareholders of industrial stocks was the meeting of shareholders of the Canada Cycle & Motor Co., at which Mr. J. W. Flavelle explained the position of affairs. The directors had been severely criticised by certain shareholders and the meeting was called to put themselves right with the public. That the explanation of Mr. Flavelle was satisfactory was evidenced by the interest with which his address was followed.

The recent heavy advance in stock values has influenced a demand on the

local speculative market that is unprecedented. Steel and coal are still favorites, and now the Soo stocks and Canadian Pacific Railway are being enquired for.

It is understood that an application will be made for the listing on the stock exchange of the shares of the Atlantic Pulp & Paper Co. This is a Canadian company with a capital of

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The total duty collected at the Port of Toronto for the month of March was \$566,220.83, an increase of \$60,515.79 over the corresponding month last year. The total duty collected for the quarter ending March 31, was \$1,663,069.89, an increase of \$247,198.77 over the corresponding period last year.

For paints, oils and glass, trade is unusually brisk. Wholesale houses report a much larger volume of business than last year's opening. Prices on oil and turpentine are firm, and the demand for dry colors is especially good. The outlook in all lines is encouraging.

**BUFFALO PIG IRON MARKET.**—Office of Rogers, Brown & Co., Buffalo, N.Y., April 1, 1902.

The fact that so many furnaces have been obliged to withdraw entirely from the market on account of the sold-up condition of their order books has caused an extremely embarrassing situation to confront belated buyers who have not fully covered for their requirements. This inability to obtain the iron necessary for their work has resulted in considerable loss to many foundries, owing to their having been obliged to make a radical change in their mixtures.

Southern iron is practically all that is being offered in this vicinity at the present time for delivery during the balance of the year.

There is no let-up in the heavy demands on furnaces for shipments on existing contracts.

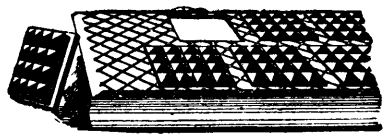
**AMERICAN METAL MARKETS REPORTS.**—The following quotations and comments are collated from the American Metal Market, New York, and represent the conditions in the United States market.

**PIG IRON.**—There is much comment in New York on the attitude of the larger southern furnaces in regard to prices of foundry iron for delivery during the last half of this year. The real situation seems to be that they have sold all the iron they care to sell on the basis of \$12 for No. 2 foundry f.o.b. Birmingham, and they are now waiting to size up the future prospects. Some heavy business is pending in Virginia irons on the basis of \$18 to \$19 at furnaces. It is a conservative estimate to state that about half of the foundry iron capacity for the last nine months of this year has been contracted for.

**BAR IRON.**—The price for common iron bars is now 1.80 base f.o.b. Pittsburg, but there are said to be some mills not embraced in the Eastern or Western Bar Iron Associations, which are cutting this price. Jobbers were heavy purchasers of

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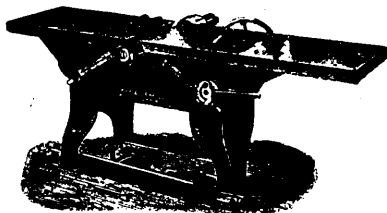
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(endorsed by the British Government), the 16th edition of which is about to be issued. In addition to the Classified Trade Lists of the Importers and Exporters, Merchants and Manufacturers of the United Kingdom and all principal trading centres of the World, it gives the Customs Tariffs for every country and all classes of goods. The work contains nearly 4,000 pages, and gives more information than any other work published.

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A few Extracts from LETTERS

**FROM BRITISH CONSULS, Etc.**

"I am constantly receiving letters of enquiry for information that in most cases could be obtained in your Directory."—*British Consulate, Uruguay.*  
"The only book consulted is Kelly's Directory."—*From British Consular Return, Riga.*

"Many of these inquiries would have been rendered superfluous by a reference to Kelly's Directory."—*Report from British Consul, Genoa.*

"The Directory has been of the greatest service to me in my former Consular posts, and will, I believe, be doubly useful here."—*B. C. Chicago.*

"We beg to express our appreciation of the thorough and exhaustive character of the Directory, which covers exactly the fields we desire to reach."—*Messrs. H. M. Anthony Co., New York.*

"The copy of Kelly's Directory has already been of great use to me."—*B. V. C. Thorshavn.*

"It is a Directory which is very often consulted by the Merchants of our town."—*B. V. C., Dedagatch, Turkey.*

"Your Directory was useful to me and the merchants in general."—*British Consular Agent, Tetuan.*

iron bars at prices below the previous advance to 1.70c. and round resale lots are appearing on the market at less than present association prices. It looks as if the parity between steel and iron bars must soon be readjusted. It is an anomaly to find steel bars 2.10c. per pound below the price of common iron bars, and it does not seem probable that this condition can long remain.

**WIRE NAILS.**—An uncommonly heavy demand is reported for wire nails and other wire products, and the production is accordingly large. The daily production of wire nails is estimated at 40,000 kegs, or at the rate of about 14,000,000 kegs a year. The United States Steel Corporation is producing wire nails at the rate of 27,000 kegs a day, the remainder of the output coming from the independent companies.

**NICKEL.**—Mr. Schwab of the United States Steel Corporation has organized a company with \$9,000,000 capital and has obtained control of the Orford Copper Co., the Canadian Copper Co., of Cleveland, and the Nickel Co., of London, the two first named companies being the owners of the rich nickel mines in the Sudbury district of Ontario, Canada, and the third company owning the New Caledonia mines. A combination of some sort has long been agitated, Mr. Thompson, of the Orford Copper Co., is reported as saying:

Some time ago it was thought by the interests in our company that it would be a good thing for us to invest in the stocks of the nickel companies with which we have such close business connections. So I and my friends, including Mr. Schwab, did invest. Our interests have secured a majority of control of the Canadian Copper Co's stock, but our holdings in the Nickel Corporation of London which control the New Caledonia mines, fall short of the control. It is proposed to transfer those holdings, together with our holdings of the stock of the Orford company itself to a holding company, which will probably be capitalized at \$9,000,000. The Orford company is capitalized at \$300,000; the Canadian Copper Co. at \$2,500,000, and the Nickel Corporation at £750,000.

At a meeting of the International Nickel Co., held in New York, April 1, for organization, the following officers were elected:—President, Ambrose Monell; Chairman of the Board of Directors, Robert M. Thompson, president of the Orford Copper Co.; secretary, Stephen H. P. Pell; treasurer, Joseph Claudet; Board of Directors, Mr. Thompson, Mr. Monell, E. C. Converse, John R. De Lammar, Max Pam (General Council), Jos. Whraton, Millard Hunscker, Dr. Leslie, D. Ward and Archibald W. Maconochie. It was voted to take over the entire capital stock of the following companies:—The Orford Copper Co., the Canadian Copper Co., the Anglo-American Iron Co. and the Vermillion Mining Co., shares in which two latter companies are largely held by the Canadian Copper Co., the Nickel Corporation of London, the Societe Miniere Caledonienne of New Caledonia, and the American Nickel Works of Camden. Mr. T. W.

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JAS. R. BROWN, Parliament Buildings, Toronto.

MARGARET CARLYLE, Parliament Buildings, Toronto.

O. A. ROCQUE, Orleans, Ont.

Persons having business with any of the Inspectors will find them at the above address.

JOHN DRYDEN, Minister of Agriculture.

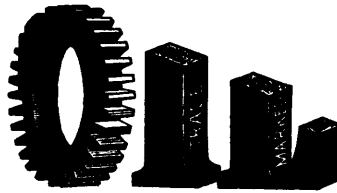
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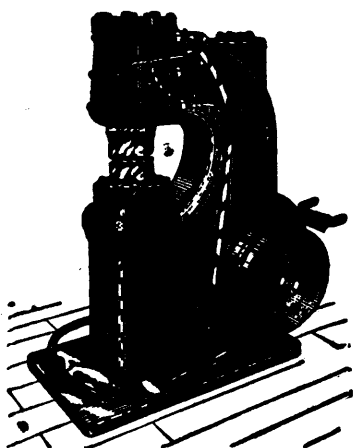
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Gibson, director of the Ontario Bureau of Mines, states with reference to the reported absorption of the Canadian and Orford Copper companies by the International Nickel Co., that the bureau does not anticipate any closing down of the mines, the deposits being too valuable and the metal in too great demand. He viewed it as a mere change of ownership on the part of American companies, and as yet could see no call for action on the part of the bureau.

**MASTER PLUMBERS ASSOCIATION OF ONTARIO.**—The master plumbers of Ontario assembled in convention in Toronto last week and formed themselves into the Master Plumbers Association of Ontario.

Among those present at the convention were:—William Mansell, H. B. Hogarth, J. H. Wilson, Kenneth J. Allison, George Clapperton, W. H. Meredith, George H. Cooper, E. Larter, James Sherlock, R. Harrison, James Fitzsimons, W. G. D. Adams, Robert Ross and A. Purdy, Toronto; and Messrs. Rogers, Clark, Walsh and Stewart, Hamilton; Charles Taylor, Brantford; C. T. Bull, James Williams, St. Thomas; H. Mahoney, Guelph; J. H. Neeland, Barrie; A. Chatfield, S. P. Gourlay, A. Riddell, St. Catharines; John McKinley, H. A. Knox, Ottawa; Philip Gies, Berlin; Robert G. Sturgeon, Peterborough; and J. F. Read, Smith's Falls.

Mr. John McKinley, president of the National Association of Plumbers, presided at the opening sessions, when a constitution and by-laws were adopted. The following officers were elected:—President, William Mansell, Toronto; vice-president, William Clark, Hamilton; secretary, W. H. Meredith, Toronto; treasurer, J. H. Wilson, Toronto; executive committee, S. P. Gourlay, St. Catharines; Philip Gies, Berlin; and H. Mahoney, Guelph.

The chairmen of committees were elected as follows:—Legislation, J. H. Neelands, Barrie; sanitary, A. Rogers, Hamilton; apprenticeship, Charles Taylor, Brantford; essay, R. Ross, Toronto. It was decided to hold the next meeting of the Association in Toronto on Thanksgiving Day.

**TOBACCO MANUFACTURERS.**—An influential representative deputation of Canadian tobacco manufacturers, including delegates from Hamilton, Montreal and Quebec, waited on the government a few days ago and made representations to the effect that the American tobacco manufacturers are requiring dealers in Canada doing business with them to sign a contract not to sell any other brands. The deputation wants the government to look into the case and take immediate steps to protect the Canadian industry. The government will probably have the matter investigated.

**BIG ORDER FOR ENGLISH RAILS.**—Mr. James Cooper, of Montreal, has closed a contract with the Grand Trunk Railway for the delivery of 25,000 tons of rails. There has been a heavy consumption of steel rails in Canada lately, and the Car-

negie works at Pittsburg has been unable to fill all its orders. This Grand Trunk order is the second largest ever given out in Canada. Some years ago the Canadian Pacific Railway gave Mr. Carnegie, through a Canadian representative, a contract for even a larger amount. Mr. Cooper will import the rails from England on the opening of navigation. It is understood that the Canadian firms have lately placed several orders for English rails.

**BRITISH COLUMBIA LEAD INDUSTRY.**—A deputation representing the lead industry of British Columbia waited upon the Dominion Government a few days ago. The deputation consisted of Mr. Buchanan, representing the Associated Boards of Trade of British Columbia, W. H. Aldrich, representing the smelting interests, and James Cronin the mining industry. Last year a bonus of \$100,000 was voted to encourage the industry, to be paid at the rate of \$5 a ton on a production of 20,000 tons. The deputation asked that the \$100,000 be distributed on a production of 14,000 tons, which would make the bonus some \$7 per ton. They further asked an increase of the duty on pig lead from 15 to 25 per cent. They further recommended that the government coal lands in the province, some 50,000 acres, be placed in the hands of an independent

company to develop, and prices limited to \$3.50 per ton for coke and \$1.75 for screen coal.

**TIN IN ALASKA.**—A material reported by the State Mining Bureau of California supposed to be tungstate of iron, has proved to be limonite. The material was found in the sluices where they had been washing out stream tin. While reticent about the exact locality, they stated it was in Northwest Alaska, somewhere on the Seward Peninsula, on which Nome is situated. It was found over a somewhat extensive area where the men were working certain creeks for gold. When they got any gold they found little or no tin, but on four different creeks they found so much tin that according to their representation each man washed out about 1,000 pounds per day. The specimens taken to the mining bureau were undoubtedly pieces of stream tin, in the opinion of the chemist of that institution. Should the information as to extent and amount prove authentic, other prospectors in Northwest Alaska will doubtless search for tin hereafter as well as for gold. There seems to be little doubt that tin does exist there, but the extent of the deposit is still, of course, entirely uncertain.—Engineering and Mining Journal.

**THE WORLD'S PRODUCTION OF CORK.**—According to the French Journal Officiel the production of cork in the world, estimated at 1,000 metric tons (metric ton=2,204 lbs. avoirdupois), is limited to those regions whose shores are washed by the Mediterranean and the Atlantic, extending from Morocco up to 45 degrees North Latitude, nearly to Bordeaux. The only producing countries, therefore, are Portugal, Spain, France, Italy and North Africa (Tunis, Algeria and Morocco).

It is impossible to determine, even approximately, the total extent of the forests of cork trees, owing to the lack of any precise information. Speaking generally, however, it is known that the forests in which the cork tree is found in more or less profusion, cover an area of about 600,000 hectares in Portugal (hectare=2.47 acres), 300,000 in Spain, 80,000 in Italy, and France with her North African possessions, 661,000 hectares, of which 426,000 are in Algeria, and 82,000 in Tunis. But it may be said that the area of French forests, including those in North Africa, really producing cork is more than one-half of the total extent of cork forests. These forests are composed mainly of cork trees intermixed with pines and evergreen oaks; in the Eastern Kroumirie, however, magnificent forests

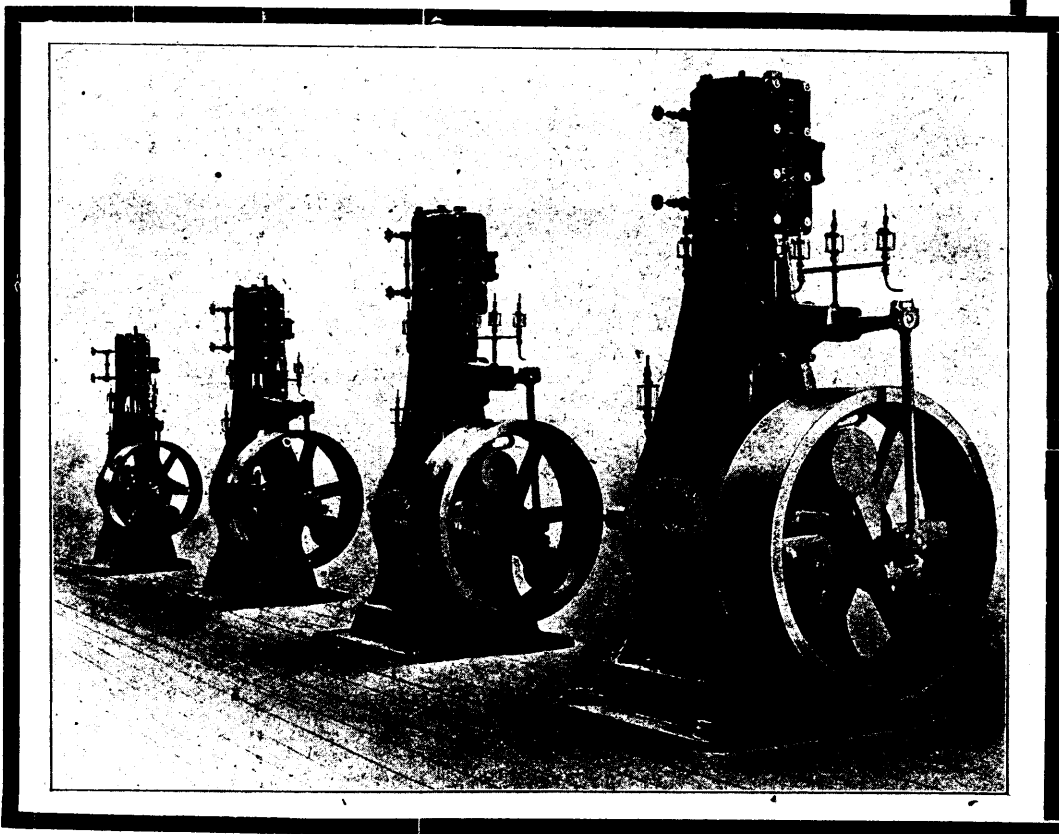
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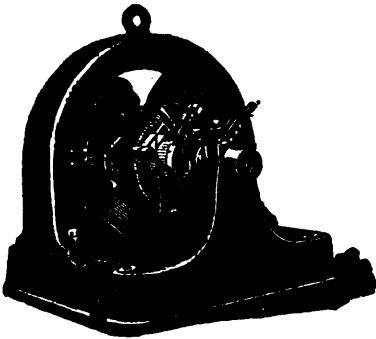
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of cork trees are to be found in their virgin state, which will in the future give a large production of cork.

The demand for cork increases from day to day, and there is no doubt that when the production is increased, it will find a ready market, especially the better qualities. It is said that France, the United Kingdom, Germany, Russia and the United States absorb 85 per cent. of the total consumption of cork.

Germany, Russia, and the United States of America impose prohibitive duties on cork manufactures, and, in order to assist the home industry, admit the raw material almost free. The United Kingdom alone imposes no Customs duty on either, but her consumption of the manufactured article is provided for by French and Spanish manufacture, and by Portugal, from which country the United Kingdom imported in 1900 manufactured cork to the amount of 5,916,017 pounds. Spain exports principally the finished product. Catalonia supplies champagne corks of superior quality, which are sold at from £6 2s. to £6 13s. per thousand.

The Journal Officiel goes on to say that France and her African colonies have every interest in increasing their production of cork, and taking pre-eminence in the markets of the world, the more so as Portugese cork, which grows so rapidly owing to the humidity of the climate, is of inferior quality to that of the Mediterranean littoral. The bad name which African cork has borne for a long time is now a thing of the past, the complete collection of samples exhibited at Paris last year having entirely removed the impression.

In Tunis, where there yet remain several large forests to be taken into account, the production of cork was 9,930 quintals in 1900, and 11,882 quintals in 1901. The cork, which was bought by French and Algerian merchants and taken away immediately for manufacturing purposes, was sold at an average price of 28 francs per quintal in 1900, and 32.84 francs per quintal in 1901. Tunisian cork is, generally speaking, of a good quality, and certain parts of the Kroumirie are said to furnish a very hard cork with a fine grain, and for that reason it is much sought after by the trade. There is, however, a difference in the sale price of Tunisian cork compared with the price obtained by the Algerian product, but this is due to the fact that in Tunis only cork of the first growth, which has a very thick crust, is sold, and consequently it loses much of its value in being scraped. In the near future Tunis will collect cork of the second growth, the quality of which, it is said, will certainly equal that of Algeria.

## BUSINESS CHANGES.

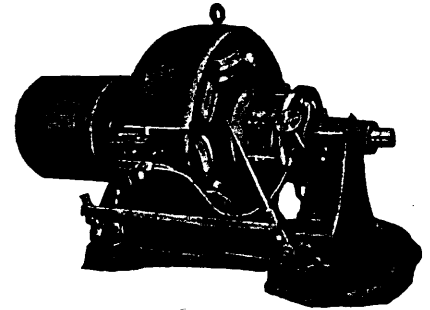
FROM BRADSTREETS.

### ONTARIO.

BONFIELD—Etienne Beaulieu, grist and flour mill, adv. business for sale.  
DELHI—Delhi Fruit & Vegetable Canning Co., obtained charter.  
DUNDAS—Canada Can Co., voluntary liquidation.  
DUTTON—Dunwich Farmers' Building Co., obtained charter.  
FORT FRANCES—Fort Frances Hematite Co., obtained charter.  
GANANOQUE—National Mica Grinding Co., obtained charter.

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We manufacture Direct Current Machinery in all sizes and for any purpose.

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JOHN A. FULTON, Gen'l Manager Eastern Canada,  
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HANOVER—Hollinger & Ball Chair Co., dissolved, Geo. Hollinger retires. To be succeeded by the Ball Furniture Co.  
 PAISLEY—Duncan Fisher, woolen mill, assigned.  
 PETROLEA—Milner-Petrolea Wagon Co., obtained charter.  
 PORT ELGIN—A. A. Campbell, saw mill, etc., adv. business for sale.  
 SARNIA—Sarnia Log Towing Co., obtained charter.  
 SIMCOE—Simcoe Wool Stock Co., burned out.  
 SPRAGGUE—Lummis Cook Lumber Co., obtained charter.  
 TORONTO—Automobile Garage, obtained charter.  
 Dominion Motor & Machine Co., obtained charter.  
 Imperial Rolling Stock Co., obtained charter.  
 Mackenzie, Mann & Co., obtained charter.  
 National Box Co., obtained charter.  
 Rokco Mfg. Co., obtained charter.  
 Sand & Dredging Co., obtained charter.  
 Polson Iron Works, planing mill burned.  
 O. B. Stanton & Co., obtained charter.  
 Western Canada Woolen Mills Co., E. R. C. Clarkon, liquidator.  
 VICTORIA HARBOR—Victoria Harbor Lumber Co., loss by fire.  
 WINDSOR—McGregor, Ban wolle Fence Co., obtained charter.

**QUEBEC.**

CAPELTON—A. L. Howard & Co., mfr. chemicals, etc., registered.  
 MONTREAL—Canadian Foundry & Iron Co., seeking incorporation.  
 McCormick Mfg. Co., registered.  
 Montreal Subway Co., applied for charter.  
 Ogilvie Flour Mills Co., applying for charter.  
 Surprise Spring Bed Co., registered.  
 Drouin, Waldron Co., hats, caps, etc., applied for charter.  
 MYSTIC—Mystic Foundry Co., registered.  
 St. TITE—Remillard & Cie, foundry, registered.  
 SHAWENEGAN FALLS—Goulet & Cie, sash and door factory, registered.  
 WEST ALWYN—E. N. Hurtubise & Co., sawmill, assigned.

**NEW BRUNSWICK.**

HARTLAND—Shaw & Estey, sawmill, dissolved.  
 St. JOHN—St. John Foundry Co., incorporated.

**NOVA SCOTIA.**

ANNAPOLIS—Western Counties Iron & Steel Co., seeking incorporation.  
 BRIDGEWATER—Harnish & Tupper, steam mill, burnt out.  
 SYDNEY—Atlantic Coal Co., seeking incorporation.  
 YARMOUTH—Yarmouth & Digby Electric Railway Co., seeking incorporation.

**MANITOBA.**

MORRIS—Morkill & Whitworth, lumber, sold to Morris Lumber Co.  
 WINNIPEG—Pressed Brick & Tile Co., applying for incorporation.

**NORTH-WEST TERRITORIES.**

HAGUE—J. Wiebe, planing mill, sold to Hamm & Klassen.

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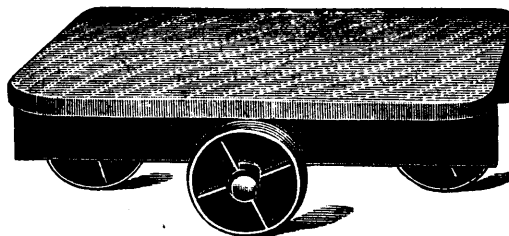
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DOES  
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PLEASES THE MAN  
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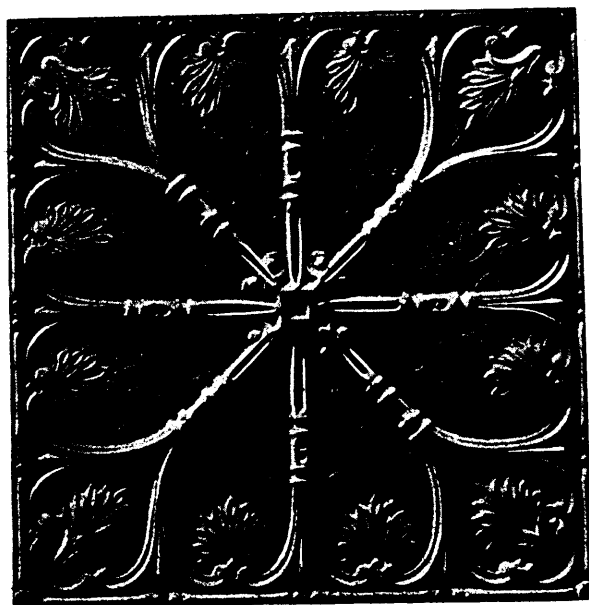
**Current Prices, Revised to April 4, 1902.**

The following quotations represent the prices current in the market, as obtainable by the trade, whether from the manufacturers or the jobbers. Small orders and broken packages usually command higher prices, while lower prices are usually given to larger buyers.

The Canadian Customs Duties imposed upon all imported articles enumerated in these lists are published in full in the 1900 Tariff Edition of THE CANADIAN MANUFACTURER. Price 50 cents per copy.

The publishers request the trade to suggest any changes and improvements which might be made in these lists, with a view to rendering quotations as correct and useful as possible.

<p><b>ADZES.</b>—Duty 30%. \$13 to \$20 per doz.</p> <p><b>AMMUNITION.</b>—Duty 30%. Caps, Gun, gross. Cartridges, B.B. Cap, Dom., 50 &amp; 5% discount, Can. list. Cartridges, B.B. Cap, Amer., 40% discount, Amer. list. Cartridges, Central Fire, Military and Sporting, Amer., add 5% to list. Cartridges, Central Fire, Military and Sporting, Dom., 15 &amp; 5% discount. Cartridges, Central Fire, pistol size, Dom., 30% discount. Cartridges, Central Fire, pistol size, Amer., 10% discount. Cartridges, Central Fire, rifle size, Amer., 10% discount. Cartridges, Rim Fire, pistol, Amer., 40% discount. Cartridges, Rim Fire, pistol, Dom., 50 &amp; 5% discount. Powder, sporting, Can., \$4.50 per keg 25 lbs. " " Eng., " " Amer., \$5.50 per keg 25 lbs. " " blasting, \$2.50 per keg. Primers, Dom., 30% discount. Shells, Brass, Shot, 55% discount. " Trap, loaded or empty, 25% discount. " Rival and Nitro, net.</p>	<p>Shot, Buck, Seal or Ball, \$6.62½ per 100 lb. net. (duty 35%). " Chilled, \$6 per 100 lb. net. " Common, \$5.50 per 100 lb. net. Prices are f.o.b. Toronto, Hamilton, Montreal, St. John and Halifax. Terms 3% cash, freights equalized.</p> <p><b>ANCHORS.</b> Small, 30 to 50 lbs., \$7.00 per 100 lbs). 100 lbs. and larger, \$5.00 per 100 lbs).</p> <p><b>ANVILS.</b>—Duty 30%. Boker &amp; Co., 12 to 15 cents per lb. Brook's, 10 to 13 cents per lb. Peter Wright's, 12 to 15 cents per lb.</p> <p><b>AUGERS.</b>—Duty 30%. Eye Augers, 60% discount. Nut Augers, 60 Ship Augers, 10 "</p> <p><b>AXES.</b>—Duty 25%. Bench, \$6.50 to \$14 per doz. Broad, \$26.25 to \$40 per doz. Double-bitted, \$11 to \$13 per doz. Handled, \$8.50 to \$12 per doz. Regular, \$6 to \$10 per doz. Ship Carpenters, \$22 to 25 per doz.</p> <p><b>AXLE GREASE.</b>—Duty 25%. Ordinary, box, \$5.75 to \$6 per gross.</p>	<p><b>AXLES.</b>—Duty 35%. Half patent, short beds, 60% discount per set. " long " 60% "</p> <p><b>BAGS.</b>—Duty 20%. Cotton, seamless, \$14 @ \$24.50 per 100. Jute, \$7.75 @ \$9 per 100.</p> <p><b>BANDS.</b>—Duty 30%. Carriage Hub, 2" x13", \$13.00 per set. " " 2½" x13", 14.00 " " " 2¾" x13", 15.00 " " " 3" x13", 16.00 " " " 3½" x13", 17.00 " " " 4" x13", 18.00 " " " 4½" x13", 19.00 " " " 5" x13", 20.00 " " " 5½" x13", 21.00 " " " 6" x13", 24.00 " " " 6½" x13", 25.00 " " " 7" x13", 26.00 " " " 7½" x13", 27.00 " " " 8" x13", 28.00 " " " 8½" x13", 29.00 " " " 9" x13", 30.00 " " " 9½" x13", 31.00 "</p> <p><b>BARROWS.</b>—Duty 30%. See Wheelbarrows.</p>
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Ceiling Plate, No 560.

Send us a rough sketch of your Offices or Showrooms, giving sizes, etc., and we will prepare you design and estimate.

## Metal Ceilings

are specially appropriate for office use.

They are very ornamental and sanitary—keep out the dust and can be washed as often as required.

They do not crack and fall off like plaster and cost very little more.

During the past season we have fitted up a large number of offices and showrooms, and we would like to refer you to some of our work.

We can put Metal Ceilings on right over plaster, and when they are on all expense ceases, as nothing can damage them excepting the destruction of the building.

**The Metal Shingle & Siding Co., Limited**  
**PRESTON, ONT.**

**BELLS.**—Duty 30%.  
Church, 35 cents per lb.  
Cow, 60% discount.  
Door, \$5.50 to \$12 per doz.  
Farm, \$1.75 to \$4.50 each.

**BELLOWS.**—Duty 25%.  
Blacksmiths', Canadian, 10% discount; Amer., 50% discount.  
Moulders', \$9.50 to \$15 per doz.

**BELTING (Leather).**—Duty 20%.  
Amer., Hoyt's, regular, 35% discount.  
Canadian, 55% discount.

**BELTING (Rubber).**—Duty 20%.  
50 to 60% discount.

**BITS.**—Duty 30%.  
Countersink, \$1.50 per doz.  
Gimlet, U.S., \$1 per doz.  
Reamer, \$1.50 per doz.

**BLANKETS.**—Duty 35%.  
Horse, \$18 to \$36 per doz.

**BLOCKS.**—Duty 30%.  
Gin, \$3.50 to \$5 each.  
Hyper Acme, 15% discount.  
Weston Chain, 25  
Wood Pulley, 60% discount.  
Wrought Iron, 25

**BLUE STONE.**  
Cask lots, for spraying, 7 cents per lb.  
100-lb. lots, for spraying, 7½ cents per lb.

**BOLTS.**—Duty ½ cents lb., & 25%.  
Bolt Ends, 62½% discount.  
Carriage, 60  
Coach Screws, 70  
Elevator Bolts, 45% discount.  
Machine, 60  
Flow, 60  
Shaft, 45  
Sink, 50  
Sleigh Shoe, 72½  
Stove, 60  
Tire, 55

**BOOT, CAULKS.**—Duty 20%.  
Small or Medium, ball, \$4.25 per M.  
Heel, \$4.50 per M.

**BOOT HEELS or Lifts (Leather).**—Duty 25%.  
Large Size, \$1.15 doz. pairs.  
Medium Size, \$1.05 doz. pairs.

**BOOT HEELS (Rubber).**—Duty 35%.  
Sizes 6 to 11 (Men's), \$3.50 doz. pairs.  
" 4 to 5 (Boy's), \$3.35  
" 0 to 3 (Women's), \$3.25 doz. pair.

**BOOT SOLES (Leather).**—Duty 25%.  
Heavy, \$3.60 doz. pairs.  
Medium, \$2.90

**BORAX.**  
Lump, 8 cents per lb.  
Powdered, 10 cents per lb.

**BRACES AND BITS (Carpenters)**—Duty 30%.  
Barber's best, 70 and 10% discount.  
Spofford's, 50 and 5% discount.  
Improved, 50 and 5% discount.

**BRICK (Fire).**—Duty 20%.  
Circular, \$35 per M.  
Square, \$30 per M.

**BRUSHES.**—Duty 25%.  
Canadian list, 50% discount.

**BUCKLES.**—Duty 30%.  
Double Grip Trace, three loop, tinned and japanned, put up a dozen in a box, 1½", 55 cents per doz.; 1¼", 65 cents per doz.  
Harness, japanned or tinned, 12 cents per lb.  
Shoe, japanned or tinned, 12 cents per lb.

**BUTTS.**—Duty 30%.  
Cast Butts, 60% discount.  
Loose Pin, Bronze, 60 cents to \$2 per pair.  
Loose Pin, B. Bronze, 30 cents to \$1 per pair.  
Loose Pin, wrought, 50% discount.  
Wrought Brass, 50  
Wrought Iron, 60

**CANT DOGS.**—Duty 30%.  
\$10 per doz.

**CARBIDE, Bicycle.**—Duty 25%.  
In Cases containing 2 doz. 1 lb. cans, \$1.75.  
" " " 2 " " " 2.75.  
" " " 1 " " " 3.00.  
In Cans " 100 lbs., \$3.25.

**CASTINGS (Iron).**—Duty 30%.  
Carriage, in 5 ton lots, 5 cents per lb.  
" " " 3 " " " 5½ " " "  
" " " 2 " " " 5½ " " "  
" " " 1 " " " 5½ " " "  
" " " ½ " " " 5½ " " "

**CASTINGS (Brass)**—Duty 20%.  
21 to 25 cents per lb.

**CASTINGS (Phosphor Bronze)**—Duty 20%.  
22 cents per lb.

**CASTORS.**—Duty 30%.  
Bed, 55% discount.  
Plate, 55  
Truck, Payson's, 60% discount.

**CEMENT.**—Duty 12½ cents per 100 lbs.  
Belgian, Portland, \$2.50 to \$2.75.  
Canadian, hydraulic, \$1.25 to \$1.50.  
Canadian, Portland:  
Rathbun's, "Star," \$2.35 to \$2.75.  
" "Beaver," \$2.10 to \$2.50.  
" "Ensign," \$1.90 to \$2.30.  
The smaller figures represent car load lots, and the larger less than car loads, f.o.b., Toronto.  
English, Portland, \$3.

**CHALK.**  
Carpenters', colored, 45 to 75 cents per gross.  
Crayon, 14 to 18 cents per gross.  
Red, 5 to 6 cents per lb.  
White Lump, 60 to 65 cents per 100 lbs.

**CHAIN.**—Duty 5%.  
Brass, Jack, 30% discount.  
Coil, 3-16, \$11.00 per 100 lb.; ½, \$8.75 per 100 lbs.; 5-16, \$5.50 per 100 lbs.; ¾, \$4.90 per 100 lbs.; 1, \$4.40 per 100 lbs.; 1¼, \$4.00 per 100 lbs.; 1½, \$3.90 per 100 lbs.  
Iron, Jack, 25% discount.  
Safety, 55

**CHISELS.**—Duty 30%.  
Calking, Socket, Framing and Firmer.  
P.S. & W. Extra, 60, 10 & 5% discount.  
Warnock's, 70% discount.

**CLEAVISES.**—Duty 30%.  
Screw, \$2.50 per doz.

**COLORS.**—In oil, see Paints.  
" —Dry, see Paints.

**CORD.**—Duty 25%.  
Sash, Silver Lake (A), 50 cents per lb. (B), cents per lb.  
Baltic, 25 cents per lb.  
Hercules, 30 cents per lb.

**COTTON DUCK.**—Duty 22½%.  
36 in. wide, 38 cents per yd.  
48 in. wide, 45 cents per yd.  
60 in. wide, 57 cents per yd.

**CROW BARS.**—Duty 30%.  
5 cents per lb.

**CRUCIBLES.**  
Dixon's, 7 cents per number.

**DRILLS.**—Duty 25%.  
Blacksmiths' \$6 to \$15 each.  
Jardine's, \$7.50 to \$20 each.

**DYES (Aniline).**

**DYNAMITE.**  
30 to 50 cents per lb.

**EMERY.**  
Coarse, 7 cents per lb.  
Fine, 5 cents per lb.

**EMERY CLOTH.**—Duty 25%.  
Beader & Adamson, 40% discount.

**EMERY HONES.**—Duty 25%.  
\$3 to \$5 per doz.

**EMERY STEELS.**—Duty 25%.  
\$2 per doz.

**EMERY WHEELS.**—Duty 25%.  
65% discount.

**EXPANDERS.**—Duty 30%.  
Tube, Dudgeon, 33½% discount.

**FAUCETS.**—Duty 30%.  
Brass, \$2.50 to \$5 per doz.  
Wood, 60c. to \$1.00 per doz.

**FENCING.**  
Barb Wire, \$3.05 per 100 lbs.

**FENCING (Wire).**—Duty 15%.  
Galvanized, barb, f.o.b. Toronto, \$3.05.  
Galvanized, plain twist, f.o.b. Toronto, \$3.05.  
Galvanized, barb, f.o.b. Cleveland, \$2.82½ in less than car lots, and \$2.70 in car lots.  
Mesh, 5½x10½, 20 rod rolls 55% discount, Can. list.  
" 4 x8, 20 " 50 & 5% " "  
" 3 x6, 20 " 55 & 5% " "

**FERRULES.**—Duty 30%.  
Tool handle, 5c. & 6c. per lb.

**FILES.**—Duty 30%.  
Black Diamond, 50 and 10% discount.  
Globe, 70% discount.  
Grobet, net.  
Jowitt's, 25% discount.  
Nicholson, 50 & 10% discount.  
Stubbs', 15% discount.

**FITTINGS (Pipe).**—Duty 30%.  
Bushings, 55% discount.  
Cast Iron, 55% discount.  
Cocks, 60  
Elbows, tees, crosses, couplings, lock nuts, return bends, 50% discount.  
Flanges, 55% discount.  
Nipples, 55  
Plugs, 55  
Unions, 55  
Wrought Iron, 50% discount.

**FLUE SCRAPER.**—Duty 30%.  
Engineers' Favorite, 40% discount.  
Inglis, 20% discount.  
Wire, 50

**FORKS, HOES AND RAKES.**—Duty 25%.  
50, 10 and 5% discount.

**FUSE.**  
Blasting, Single tape, \$3.75 per M ft.  
Double tape, \$5 per M ft.

**GASKETS.**—Duty 35%.  
Rubber Insertion, 60 cents lb.

**GAUGE GLASSES.**—Duty 30%.  
Water, 25% discount.

**GAUGES.**—Duty 30%.  
Steam, 50% discount.

**GLASS.**—Duty 20%. (Window).  
Glass Demijohns or carboys, empty or filled, bottles, decanters, flasks, phials, glass jars, lamp chimneys, glass shades or globes, cut, pressed or moulded crystal or glass tableware, decorated or not, and blown glass tableware—Duty 30%.

**GLASS LAMP CHIMNEYS.**—Duty 30%.  
Common Crimp, per doz. O, 43 cents.  
" " " " A, 45 " "  
" " " " B, 65 " "  
Lead Glass, " " A, 50 " "  
" " " " B, 75 " "

**FRUIT JARS.**—Duty 30%.  
Standard pints, \$7.25 per gross.  
" quarts, \$7.75 per gross.  
" half gal., \$10.00 per gross.  
Imperial pints, \$7.75 per gross.  
" quarts, \$8.75 per gross.  
" half gal., \$12.00 per gross.

**GLUE.**—Duty 25%.  
Cabinet, sheet, 12 to 13 cents per lb.  
Common, 8½ to 9 cents per lb.  
Gelatine, 22 to 30 cents per lb.  
Strip, 18 to 20 cents per lb.  
White, extra, 18 to 20 cents per lb.

**GOVERNORS.**—Duty 25%.  
Gardners', 25% discount.

**GRANITEWARE.**—Duty 35%.  
Firsts, 50% discount.

**GRAIN CRADLES.**—Duty 25%.  
With Scythes complete \$33 per doz.  
Without scythes, \$18.50.

**GRINDSTONES.**—Duty 25%.  
Large, \$1.75 per 100 lbs.  
Mounted, \$3 to \$3.50 each.  
Small, \$1.50 per 100 lbs.

**HALTER MOUNTINGS.**—Duty 30%.  
1x1¼ inch, 10c. per lb.  
(Evans), 1x1¼ in., doz. set packages, \$8.00 per gross.

**HALTERS.**—Duty 30%.  
Leather, 1 in. strap, \$3.87½ to \$4 per doz.  
Leather, 1½ in. strap, \$5.15 to \$5.20 per doz.  
Rope, ½, \$9 per gross.  
Rope, ¾ to 1, \$14 per gross.  
Web, \$1.87 to \$2.45 per doz.

**HAMMERS.**—Duty 30%.  
Blacksmiths', 10 cents per lb.  
Carpenters', Madoles', \$6.40 to \$8.75 per doz.  
Carpenters', Warnock's, \$4 to \$7.50 per doz.  
Machinists', 22 cents per lb.  
Sledge, 10 cents per lb.  
Tack, 60 cents to \$1.20 per doz.  
Tinners', \$4 to \$6.50 per doz.

**HANDLES.**—Duty 25%.  
Axe, \$1.50 to \$2.50 per doz.  
Chisel, \$3.50 to \$5 per gross.  
Cross-cut saw, \$2 to \$3 per doz.  
File, \$2 to \$2.50 per gross.  
Hammer, 50 cents to \$2 per doz.  
Pick, \$1.50 to \$2.50 per doz.  
Plane, \$3.50 per gross.

**HANGERS.**—Duty 30%.  
Barn Door, round groove, \$4.50 to \$6.50 per doz.  
Parlor door, \$3 to \$6 per set.

**HARVEST TOOLS.**—Duty 25%.  
Forks, 50 & 10% discount.  
Rakes, 50 & 10  
Hoes, etc., 50 & 10

**HATCHETS.**—Duty 30%.  
Canadian, 40 to 42½% discount.



**HAY KNIVES.**—Duty 25%.  
50, 10 and 5% discount.

**HINGES.**—Duty  $\frac{1}{2}$  cents per lb., & 25%.  
Heavy T and strap, 4 in., 64 cents per lb.  
" " 5 in., 64 " " "  
" " 6 in., 6 " " "  
" " 8 in., 5 $\frac{1}{2}$  " " "  
" " 10 in., 5 $\frac{1}{2}$  " " "  
Light T and strap, 65 & 5 off.  
Screw hook and hinge, 6 to 12 in., \$4.50 per 100 lbs.; 14 in. up, \$3.50.  
Spring, \$12 per gross pairs.

**HOOKS.**—Duty 30%.  
Brush, \$7.50 to \$9.  
Reaping, 50, 10 and 5% discount.  
Chain, wrought, round or grab, \$3 & \$4.50 per doz.  
Lumber Piling, \$7 to \$19 per doz.  
Malleable, wardrobe, \$1.50 to \$2.50 per gross.  
Wire, \$1.25 to \$2

**HORSE NAILS.**—Duty 30%.—See Nails

**HORSE SHOES.**—Duty 30%.  
Lt. Med. & H., \$3.40 per keg.  
Snow, \$3.95 per keg.  
Steel, \$3.80 to \$5.25 per keg.  
Toe weight steel, \$6.15 per keg.

**HOSE.**—Duty 35%.  
City Standard, 70% discount.  
Phenix, 60% discount.

**INJECTORS.**—Duty 30%.  
Pemberthy, 65% discount.  
I. J. C., 65% discount.

**IRON.**—See Metals.

**JACKS.**—Duty %.  
Lifting, 40% discount.

**KNIVES.**—Duty 30%.  
Butcher, \$2 to \$5 per doz.  
Pocket, \$1 to \$5 per doz.

**KNOBS.**—Duty 30%.  
Door, Bronze, \$7 to \$12 per doz.  
" White Porcelain, 90 cents per doz.  
" Wood, \$4.50 per doz.

**LACING.**—Duty 15%.  
Belt (Raw Hide Cuts), \$1 per lb.  
" (Leather Side Cuts), 75 cents per lb.

**LADDERS.**—Duty 25%.  
Step, 10 cents per foot.  
Rung, 10 cents per foot.

**LAND ROLLERS.**—Duty 20%.  
\$12 to \$15 each.

**LANTERNS.**—Duty 30%.  
Cold Blast, \$7 per doz.  
Dashboard, cold blast, \$9 per doz.

**LAWN MOWERS.**—Duty 35%.  
Pennsylvania, 50% discount.  
Stearns, 50 " "  
Woodyatt, 40 " "

**LEAD (Bar and Strip).**—Duty 25%.—See Metals.  
Lead, pig.—See Metals.

**LEAD.**—Duty 5%.  
Red and White, dry.—See Paints.

**LINES (Cotton).**—Duty 25%.  
Chalk, \$2 to \$3.50 per gross.  
Wire, clothes, \$2.50 to \$4.50 per M ft.

**LOCKS.**—Duty 30%.  
Cupboard, \$1.50 per doz. up.  
Desk, \$1.50 per doz. up.  
Drawer, \$1 per doz. up.  
Padlocks, 75 cents per doz. up.  
Rim and Mortise, Peterboro, \$1.50 per doz. up.  
Amer., \$1.50 per doz. up.

**MALLEABLES.**—Duty 30%. See Castings.

**MALLETS.**—Duty 30%.  
Carpenters', hickory, \$1.25 to \$3.75 per doz.  
Caulking, 60 cents to \$2 each.  
Lignum Vitae, \$3.35 to \$5 per doz.  
Tinsmiths', \$1.25 to \$1.50 per doz.

**MATTOCKS.**—Duty 30%.  
Canadian, \$5.50 to \$6.50 per doz.

**MEAT CUTTERS.**—Duty 30%.  
Amer., 25 to 30% discount.  
German, 15% discount.

**METALS.**  
Ingots.—Aluminium, 35 to 50 cents per lb.  
" Antimony (Cookson's), 10 $\frac{1}{2}$  to 11 cents per lb.  
" Copper, "English," 18 cents per lb.  
" " Bar, 25 cents per lb.  
" Tin, "Lamb & Flag," 32 cents per lb.  
" " Straits, 32 cents per lb.  
" " Bar, 33 cents per lb.  
" Zinc, 6 to 6 $\frac{1}{2}$  cents per lb.; sheets, 7 cen per lb.

**METALS—Continued.**  
Babbitt Metal (duty 10%).  
Lewis, 7 to 10 cents per lb.  
Magnolia, 25 cents per lb.  
Post's Zero, 25 cents per lb.  
Spooners' Copperine, No. 2, 12 $\frac{1}{2}$  cents per lb., finest, 25 cents per lb.  
Syracuse Smelting Works, dynamo, 29 cents per lb.; special, 25 cents per lb.

**Sheets, Black, Duty \$7 per ton.**  
" 10—\$2.65, 100 lbs.  
" 12—\$2.75, " "  
" 14—\$3.10, " "

**Sheets, Black, Duty 5%.**  
" 17—\$3.10, 100 lbs.  
" 18—\$3.20, " "  
" 20—\$3.25, " "  
" 22—\$3.30, " "  
" 24—\$3.50, " "  
" 26—\$3.75, " "  
" 28—\$4.00, " "

**Sheets, Tinned— $\frac{1}{2}$  cents per lb., Base price.**  
**Sheets, Galvanized Iron.**  
" 17—\$3.80 per 100 lbs.  
" 18—\$3.90 " "  
" 20—\$3.90 " "  
" 22 to 24—\$4.10 per 100 lb.  
" 18 to 24—\$4.50 " "  
" 26—\$4.25 per 100 lb.  
" 28—\$4.50 " "  
" 16—(Queen Head), \$3.90 per 100 lb.  
" 18-22-24—(Queen's Head), \$4.15 per 100 lb.  
" 26—\$4.40 per 100 lb.  
" 28—\$4.65 " "

**Sheets, Corrugated—Galv., \$4.50 per 100 sq. ft.**  
**Shafting, Bright Steel.**—\$3.50 per 100 lb.  
**Shingles, Galv. Iron, Ordinary,** \$4.90 per sq.  
" " " Best, \$5.80 " "  
" " " Painted Steel, Ordinary, \$3.15 per sq.  
" " " Medium, \$3.35 " "  
" " " Best, \$5.80 " "

**Iron (duty \$7 per ton).**  
" Angle.—\$2.75 per 100 lb.  
" Bar (Common).—\$1.95 @ \$2.05.  
" Bar, "Swedes."—\$4.50 per 100 lb.  
" " Lowmoor.—\$6.50 per 100 lb.  
" Refined Bar.—\$2.60 per 100 lb.

**Iron, Planished Sheet (duty 5%)**  
" "A"—\$6.00 per 100.  
" "B"—\$5.00 " "  
" Russia.—\$10.00 per 100 lb.

**Pig Lead (duty 15%).**—Domestic, \$3.75 per 100 lb.; pigs, imported, \$4.25 per 100 lb.; bars, \$5 per 100 lb.; sheets, \$5.50 per 100 lb.

**Solder bar (duty 25%).**—1st, refined, 18 cents per lb.; half-and-half, 18 cents per lb.

**Iron, Pig (duty \$2.50 per net ton).** \$16.50 @ \$17 per ton.

**Iron, English Horse Shoe.**—\$2.85 per 100 lb.  
**Iron, Band.**—\$2.05 per 100 lb.  
**Iron, Hoop.**—\$2.90 per 100 lb.  
**Beams, Steel.**—\$3 per 100 lb.  
**Rods.**—Brass, 24 cents per lb., base price.  
**Rails, Small Steel.**—\$3 per 100 lb.  
**Steel, Cultivator.**—\$4.50 per 100 lb.  
" Channel.—\$3 to \$4 per 100 lb.  
" "Firths."—12 cents per lb.  
" "Crescent."—9 cents per lb.  
" Cant Hook.—7 $\frac{1}{2}$  cents per lb.  
" Machinery (in the rough).—\$2.25 per 100 lb.  
" Machinery.—\$2.75 per 100 lb.  
" Mild.—\$1.90 per 100 lb.  
" Sleigh Shoe.—\$1.90 per 100 lb.  
" Spring.—\$3.00 per 100.  
" Tire.—\$2.05 per lb.  
" Toe Caulk.—\$2.20 per 100 lb.

**Steel, Blister.**—12 $\frac{1}{2}$  cents per lb.  
**Steel, Hammer.**—7 cents per lb.  
**Steel, Decarbonized Sheet.**—7 cents per lb., base.  
**Tank Steel Plate (duty \$7 per ton).**—3-16, \$2.60 per 100 lb.  
**Plates, Steel Boiler (duty 10%).**— $\frac{1}{4}$  and larger, \$2.50 per 100 lb.  
**Steel Boiler Heads (duty 10%).**—\$2.60 per 100 lb.  
**Canadian Plates.**—All dull, 52 sheets, \$2.90; half polished, \$3.

**MOPS.**—\$1 per doz.

**NAIL PULLERS.**—Duty 30%.  
German and American, \$1.85 to \$3.50 each.

**NAILS.**—Duty, cut,  $\frac{1}{2}$  cent per lb.; wire, 3-5 cent per lb.  
Chair nails, 35% discount.  
Clout nails, blued, 65 and 5% discount.  
Coopers', 35% discount.  
Copper nails, 52 $\frac{1}{2}$ % discount.  
Cut, 2d \$3.65; 3d, \$3.30; 4 & 5d, \$3.65; 6 & 7d, \$2.95; 8 & 9d, \$2.80; 10 & 12d, \$2.75; 16 & 20d, \$2.70; 30, 40, 50 & 60d (base), \$2.65.  
Flour barrel nails, 30% discount.  
Galvanizing, 2 cents per lb. net, extra.  
Horse (C brand), 50 & 7 $\frac{1}{2}$ % discount.  
M brand, 50 & 10% discount.  
Steel cut nails, 10 cents extra.  
Trunk nails, black, 65 and 5% discount.  
Trunk nails, tinned, 65 and 10% discount.  
Wire, 2d \$3.85; 3d, \$3.50; 4 & 5d, \$3.25; 6 & 7d, \$3.15; 8 & 9d, \$3; 10 & 12d, \$2.95; 16 & 20d, \$2.90; 30, 40, 50 & 60d (base), \$2.85; fine, 3d, \$3.85.  
Wire nails in car lots, \$2.77 $\frac{1}{2}$ .  
Miscellaneous wire nails, 70 & 10% discount.

**NAIL SETS.**—Duty 30%.  
Assorted sizes, \$1.20 per doz.

**NETTING—Wire.**—Duty 30%.  
Galvanized, 50% discount.  
Green wire, \$1.50 per 100 sq. ft.  
Poultry, 2x2 mesh, 150 ft. roll, 55 off Canadian List.

**NOZZLES.**—Duty 30%.  
Hose (Brass), \$3.50 to \$5 per doz.

**NUTS.**—Duty  $\frac{1}{2}$  cent per lb. & 25%.  
Finished, tapped, 25% discount.  
Rough, square head, 4 cents per lb. from list.  
Rough, hexagon head, 4 cents per lb. from list.  
Semi-finished, tapped, 25% discount.

**OKAUM.**  
Navy, \$7.80 per 100 lb.  
Spun, \$9.30 per 100 lb.

**OIL.**—Duty 25%.  
Boiled Linseed Oil, bbls., 86 cents per gal.  
Cylinder Oil, from 40 cents up.  
Lard Oil, bbls., 90 cents per gal.  
Machine.  
Prime White (Can.), 14 cents per gal.  
Prime White (U.S.), 15 $\frac{1}{2}$  cents per gal.  
Raw Linseed Oil, bbls., 83 cents per gal.  
Sperm Oil, bbls., \$1.75 per gal.  
Water White (Can.), 15 cents per gal.  
Water White (U.S.), 16 $\frac{1}{2}$  cents per gal.

**OILERS.**—Duty 30%.  
\$1 per doz. up.

**PACKING.**—Duty 35%.  
Rubber Insertion, 60 cents per lb.  
Rubber Sheet, 22 cents per lb.

**PACKING.**—Duty 25%.  
Asbestos, 35 cents per lb.  
Flax, 35 cents per lb.  
Hemp, 12 $\frac{1}{2}$  cents per lb.  
Jute, 8 cents per lb.

**PAILS.**—Duty 25%.  
Galvanized Iron, \$2.50 to \$3.50 per doz.

**PAINTS.**—Duty 25%.  
Pure White Zinc, 8 to 9 cents per lb.  
No. 1, 6 to 7 $\frac{1}{2}$  cents per lb.  
No. 2, 5 to 6 $\frac{1}{2}$  cents per lb.  
Prepared, in 1,  $\frac{1}{2}$  and 1-gallon tins, \$1.25 per gal.  
Barn, in barrels, 75 to 85 cents per gal.  
Zanzibar, black, 75 cents to \$1 per gal.  
" colors, \$1.25 per gal.

**PAINTS.**—Duty 30%.  
Copper, \$3.50 per gal.

**LEAD, DRY WHITE.**—Duty 5%.  
Pure, in casks, \$5.75 per cwt.  
Pure, in kegs, \$6.25 per cwt.  
No. 1, in casks, \$5.50 per cwt.  
No. 1, in kegs, \$5 per cwt.

**LEAD, RED.**—Duty 5%.  
Genuine, 560 lb. casks, \$5.50 per cwt.  
Genuine, 100 lb. kegs, \$5.75 per cwt.  
No. 1, 560 lb. casks, \$5.25 per cwt.  
No. 1, 100 lb. kegs, \$5 per cwt.

**COLORS (Dry).**—Duty 25%.  
Burnt Sienna, pure, 10 cents per lb.  
" Umber, pure, 10 cents per lb.  
Raw, 9 cents per lb.  
Canadian Oxides, \$1.75 to \$2 per 100 lb.  
Chrome Greens, pure, 12 cents per lb.  
Chrome Yellows, pure, 18 cents per lb.  
Drop Black, pure, 9 cents per lb.  
English Oxides, \$3 to \$3.25 per 100 lb.  
English Vermillion, 80 cents.  
Fire Proof Mineral, \$1 per 100 lb.  
Genuine English Litharge, 7 cents per lb.  
Golden Ochre, 33 cents per lb.  
Mortar Color, \$1.25 per 100 lb.  
Pure Indian Red, No. 45, 90 cents per lb.  
Super Magnetic Oxides, \$2 to \$2.25 per 100 lb.  
Ultramarine Blue, in 28-lb. boxes, 8 to 24 cents per lb.  
Venetian Red (best), \$1.80 to \$1.90 per 100 lb.  
Whiting, 12 cents.

**COLORS (In Oil).**—Duty 25%.  
25 lb. tins, Standard Quality.  
Chrome Green, 8 cents per lb.  
Chrome Yellow, 11 cents per lb.  
French Imperial Green, 10 $\frac{1}{2}$  cents per lb.  
French Ochre, 5 cents per lb.  
Golden Ochre, 6 cents per lb.  
Marine Black, 9 cents per lb.  
Marine Green, 9 cents per lb.  
Venetian Red, 5 cents per lb.

**PAPER.**—Duty 25%.  
Brown Wrapping, 2 $\frac{1}{2}$  to 4 cents per lb.  
Manilla Wrapping, No. 1, 4 cents per lb.  
" No. 2, 5 $\frac{1}{2}$  " "  
Carpet Felt, \$45 per ton.  
Plain building, 35 cents per roll.  
Tarred lining, 45 cents per roll.  
Tarred roofing, \$1.65 per 100 lb.

**PEAVEYS.**—Duty 30%.  
Round and Duck bill, \$2.50 and \$13 per doz.

**PIKE POLES.**—Duty 30%.  
\$10.50 per doz.

**PICKS.**—Duty 30%.  
\$4.50 to \$7 per doz.

**PITCH.**  
85 cents 100 lbs.

**PIPE.**—Duty, \$8 per ton.  
Cast Iron Soil, Medium and Heavy, 65% discount  
" " " " Light, 60% discount.

**PIPE.**  
Brass, 25 to 35 cents per lb., base price.  
Copper, 25 cents per lb., base price.

**PIPE.**—Duty 30%.  
Galvanized Iron.  
1, \$5.15 per 100 ft.; 2, \$5.50 per 100 ft.; 1, \$7.95 per 100 ft.; 1, \$10.80 per 100 ft.; 1, \$12.95 per 100 ft.; 2, \$17.35 per 100 ft.

**PIPE, BLACK IRON.**—Duty 30%.  
1, \$4.65 per 100 ft.; 2, \$3.40 per 100 ft.; 3, \$3.45 per 100 ft.; 4, \$3.30 per 100 ft.; 5, \$3.75 per 100 ft.; 1, \$5.25 per 100 ft.; 1, \$7.40 per 100 ft. 1, \$9.30 per 100 ft.; 2, \$12.75 per 100 ft.; 2, \$22.75 per 100 ft.; 3, \$30.00 per 100 ft.; 3, \$37.50 per 100 ft.; 4, \$42.75 per 100 ft.; 4, \$51.50 per 100 ft.; 5, \$57.50 per 100 ft.; 6, \$74.50 per 100 ft.

**PIPE.**—Duty 30%.  
Wrought Iron, 1 inch, per ft. 16½ cents.

**PIPES.**—Duty 30%.  
Stove, 5 and 6 in., \$7 per 100 lengths.  
" 7 in., \$7.50 per 100 lengths.

**PLANES.**—Duty 30%.  
Bailey's, 40% discount.  
Canadian wood, 25% discount.  
Mathieson wood, 20 "

**PLUMBERS' BRASS GOODS.**—Duty 30%  
Check Valves, 60% discount.  
Compression Cocks, 50% discount.  
Gate Valves, 55% discount.  
Genuine Jenkins' Valves, 45 "  
Imitation Jenkins' Valves, 55 "  
Radiator Valves, 55% discount.  
Standard Angle Valves, 65% discount.  
Standard Globe Valves, 65 "  
Stop Cocks, 65% discount.

**POLISH.**—Duty 25%.  
Liquid Stove, \$5 per gross.  
Paste, \$5 per gross.

**PULLEYS.**—Duty 25%.  
Awning, 25 to 60 cents per doz.  
Clothes Line, 50 cents per doz.  
Dodge wood split, 50% discount.  
Sash, 25 to 27 cents per doz.

**PUMP CYLINDERS.**—Duty 25%.  
Regular patterns, 65% discount.

**PUMPS.**—Duty 25%.  
Cistern, 50% discount.  
Force, 50 "

**PUNCHES (centre).**—Duty 30%.  
Assorted sizes, \$1.80 per doz.

**PUTTY.**—Duty 20%.  
In bbls. (Bladders), \$2.10 per 100 lbs.  
In kegs, boxes or loose, \$2.25 per 100 lbs.  
In 25-lb. tins, \$2.35 per 100 lbs.  
In 12½-lb. tins, \$2.65 per 100 lbs.  
In bulk or tins less than 100 lb., \$2.90 per 100 lbs.  
Bulk, in bbls., \$1.90 per 100 lbs.  
" in less quantity, \$2.05 per 100 lbs.

**RASPS.**—Duty 30%.  
Blacksmiths, Woodworkers, etc., see Files.

**REGISTERS.**—Duty 30%.  
Floor and Wall, 50% discount.

**RIVET SETS.**—Duty 30%.  
Canadian, 35 to 37½ discount.

**RIVETS AND BURRS.**—Duty 30%.  
Copper Rivets and Burrs, 35 & 5 off; cartoons, 1 cent per lb. extra.  
Extras on Iron Rivets in 1-lb. cartoons, ½ cent per lb.  
Extras on Iron Rivets in ½-lb. cartoons, 1 cent per lb.  
Extras on Tinned or Coppered Rivets, ½-lb. cartoons, 1 cent per lb.  
Iron Rivets, black and tinned, 60 & 10% discount.  
Iron Burrs, 55% discount.

**ROPE, ETC.**—Duty 25%.  
Cotton, 3-16 in. and larger, 16 cents per lb.  
" 5-32 in., 21 cents per lb.  
" ½ in., 22½ cents per lb.  
Crucible Steel Rope, 25% discount.  
Galvanized Wire Rope, 25% discount.  
Jute, 8 cents per lb.  
Lath Yarn, 9½ cents per lb.  
Manila, 7-16 in. and larger, 13½ cents per lb.  
" ½ in., 14½ cents per lb.  
" 1 and 5-16 in., 15½ cents per lb.  
New Zealand Rope, 10 cents per lb.  
Russia Deep Sea, lines 15½ cents per lb.  
Sisal, 7-16 in. and larger, 10 cents per lb.  
" ½ in., 11 cents per lb.

**RULES.**—Duty 30%.  
Boxwood, 75 and 10% discount.  
Ivory, 37½ to 40% discount.  
Lumbermans'.

**SAD IRONS.**—Duty 30%.  
Mrs. Potts', No. 55, polished, 62½ cents per set.  
" " " " No. 50, nickle-plated, 67½ cents set.  
" " " " "Sensible," 55 and 60 cents set.  
" " " " "Toy," \$13.00 gross.

**SAND AND EMERY PAPER.**—Duty 25%.  
B. & A. Sand, 40 & 5% discount.  
Garnet, 5 to 10% advance of list.

**SAP SPOUTS.**—Duty 30%.  
Bronzed iron, with hooks, \$9.50 per 1,000.

**SASH WEIGHTS.**—Duty 25%.  
Sectional, \$2.75 to \$3 per 100 lb.  
Solid, \$1.25 to \$2.25 per 100 lb.

**SAWS.**—Duty 30%.  
Crosscut, Diaston's, 35 to 55 cents per foot.  
Hack, complete, 75 cents to \$2.75 each.  
Hack, frame only, 75 cents each.  
Hand, Diaston's, 12½ discount.  
S. & D., 40% discount.  
S. & D., 35 off on Nos. 2 and 3.

**SCALES.**—Duty 30%.  
Gurney's, 40 discount. Canadian list.

**SCREENS.**—Duty 30%.  
Door, \$7.50 to \$12 doz.  
Window, \$1.75 to \$2.75 doz.

**SCREWS.**—Duty 35%.  
Bench, iron, \$4.25 to \$5.75 per doz.  
" wood, \$3.25 to \$4 per doz.  
Drive Screws, 87½ & 10% discount.  
Hexagon Cap, 45 "  
Set, case-hardened, 60 "  
Square Cap, 50 & 5 "  
Wood, F.H., bright and steel, 87½ & 10% discount.

**SCREWS (Machine, Iron and Brass).**—Duty 35%.  
Flat head, 25% discount.  
Round head, 20 "

**SCYTHES.**—Duty 25%.  
Grass, \$8 to \$10 doz.  
Grain, \$12 to \$14 "

**SHEARS.**—Duty 30%.  
Tailors, 30 % discount Amer. list.

**SHELLS (Cartridge).**—See Ammunition.

**SHOT.** See Ammunition.

**SHOVELS AND SPADES.**—Duty 35%.  
Jones', 40 and 5% discount.  
Steel, Snow, \$2.45 @ \$2.60 per doz.

**SKATES.**—Duty 35%.  
Canadian Hockey, 40 cents to \$2.50 pair.

**SNAPS.**—Duty 30%.  
Harness, 40% discount.

**SNATHS.**—Duty 25%.  
Sythe, \$5.25 to \$8 per doz.

**SOLDER (Plumbers').**—See Metals.

**SOLDERING IRONS.**—Duty 30%.  
20 to 90 cents each.

**SPIKES.**—Duty ½ cent per lb.  
Rail, 20% discount.  
Ship, \$5 per 100 lb.

**SPRINGS.**—Duty 35%.  
Bright Carriage, 6½ per lb. net.

**STAPLES.**—Duty 30%.  
Barb wire, \$3.75 per 100 lb.  
Bed, 50% discount.  
Blind, 25 "  
Wrought iron, 75% discount.

**STEEL.**—see Metals.

**STOCKS AND DIES.**—Duty 30%.  
Blacksmiths', Lightning, 25% discount.  
" " " " "Reece, 30% discount.  
" " " " "Jardine, 35% "  
Pipe, Solid, 70 & 10% discount.  
" " " " "Duplex, 33½ discount.  
" " " " "Jarecki, 33½ "  
" " " " "Oster, 30% "  
" " " " "Armstrong, 35% "

**STONES.**—Duty 30%.  
Scythe, \$3.50 to \$5 per gross.

**TACKS, BRADS, etc.**—Duty 35%.  
Carpet tacks, blued, 80 & 15% discount.  
" " " " "tinned, 80 & 20 "  
" " " " "in kegs, 40% discount.  
Cheese-box tacks, blued, 85 & 12½ discount.  
Copper tacks, 50% discount.  
Cut tacks, blued, in dozens only, 80% discount.  
" " " " "weights, 60% discount.  
Fine finishing, 40% discount.  
Leather carpet tacks, 55% discount.  
Lining tacks, in papers, 10% discount.  
Patent brads, 40% discount.  
Picture frame points, 10% discount.  
Strawberry box tacks, bulk, 75 & 10% discount.  
Swedes, cut tacks, blued and tinned, in bulk, 80 & 10% discount; in dozens, 75% discount.  
Swedes, upholsterers', bulk, 85, 12½ & 12½ dis.  
" " " " "brush, blued and tinned, bulk, 70% dis.  
" " " " "gimp, blued, tinned and japanned, 75 & 12½ discount.  
Trunk tack, black and tinned, 85% discount.  
Zinc tacks, 35% discount.

**TAGS.**—Duty 25%.  
Shipping, 50 @ 70 cents per M.

**TAR.**  
Coal \$2.75 bbl.  
Refined, \$4 per bbl.

**TENTS.**—Duty 30%.  
Canadian list, 20% discount.

**TONGS.**—Duty 30%.  
Ice, \$9 per doz.  
Pipe, "Brown's," net.  
" " " " "Brock's," 25% discount.  
" " " " "Trimo," 25 "

**TRAPS.**—Duty 30%.

**TRUCKS.**—Duty 30%.

**TURNBUCKLES.**—Duty, ½ cent per lb., 25%; 33¼ discount.

**TURPENTINE.**—Duty 5%.  
55 cents per gal.

**TWINES.**—Duty 25%.  
Bag twine, 3-ply, 20 cents per lb.  
" " " " "4-ply, 20 cents per lb.  
Binding, 12½ cents per lb.  
Colored, 27 cents per lb.  
Cotton bag, 30 cents per lb.  
Cotton, White, 20 to 30 cents per lb.  
" " " " "Colored, 30 to 40 "  
Hemp, 20 cents per lb. "  
Jute, 20 cents per lb. "  
Mattress, 45 cents per lb.  
Sewing, 45 cents per lb.

**TWINE.**—Continued.  
Tarred Lath, 11 cts.  
Wrapping, 22 to 27 cts.

**VARNISHES.**—Duty 20 cents per gal.  
Black Japan, \$2 per gal.  
" " " " "No. 1, 75 cents to \$1.50 per gal.  
Brown Japan, \$1.50 to \$2.50 per gal.  
Carriage, No. 1, \$2 to \$3 per gal.  
" " " " "body, \$4 to \$6 per gal.  
" " " " "rubbing, \$2.50 to \$4 per gal.  
Furniture Brown Japan, \$1.25 to \$2 per gal.  
Furniture, extra, \$2 to \$2.50 per gal.  
" " " " "No. 1, 75 cents to \$1.50 per gal.  
Gold Size, Japan, \$1.50 to \$2.50 per gal.  
Hard Oil Finish, \$1.50 to \$2.50 per gal.  
Light Oil Finish, \$1.50 to \$2.50 per gal.  
Shellac, orange, \$2 to \$2.50 per gal.  
" " " " "white, \$2 to \$2.50 per gal.

**VICES.**—Duty 30%.  
Amer., 13½ cents per lb.  
Brooks', 13½ cents per lb.  
Peter Wright's, 15 cents per lb.

**WASHING MACHINES.**—Duty 35%.  
Re-acting square, \$51.00 per doz.  
" " " " "Round, \$48.00  
Rocker, \$48.00 per doz.  
Popular Brands, \$30.00 to \$42.00 per doz.  
Dowsell, \$3.75 each.  
Re-acting (Dowsell), \$5 each.

**WIRE.**  
Brass Wire, (duty 10%), 50 to 50 & 2½ discount.  
Copper Wire, (duty 15%), 45 & 10% discount net cash 30 days, f.o.b. factory.  
Smooth Steel Wire, (duty 20%), is quoted at the following net selling prices:  
No. 6 to 8-gauge, \$2.90 per 100 lbs.  
" 9 " " " " "2.80 "  
" 10 " " " " "2.87 "  
" 11 " " " " "2.90 "  
" 12 " " " " "2.95 "  
" 13 " " " " "3.15 "  
" 14 " " " " "3.37 "  
" 15 " " " " "3.50 "  
" 16 " " " " "3.65 "  
Other sizes of plain wire outside of Nos. 9, 10, 11, 12 and 13, and other varieties of plain wire remain at \$2.80, base, with extras as before.  
Galvanized Wire, per 100 lb.: Nos. 6, 7, 8, \$3.50 to \$3.85; No. 9, \$2.85 to \$3.15; No. 10, \$3.60 to \$3.95; No. 11, \$3.70 to \$4.10; No. 12, \$3 to \$3.30; No. 13, \$3.10 to \$3.40; No. 14, \$4.10 to \$4.50; No. 15, \$4.60 to \$5.05; No. 16, \$4.85 to \$5.35. Base sizes, Nos. 6 to 9, \$2.57; f.o.b. Cleveland.  
Clothes Line Wire, solid 7 strand, No. 17, \$4.25; No. 18, \$2.65; No. 19, \$2.35; f.o.b. Toronto, Hamilton and Montreal.

**WASTE (Cotton).**  
Colored, \$5.50 to \$6 per 100 lb.  
White, \$7.75 per 100 lbs.  
" " " " "extra, \$8 per 100 lb.

**WHEELBARROWS.**—Duty 30%.  
Garden, \$2 to \$4.50 each.  
Navy, \$19 per doz.  
" " " " "Iron wheel, \$22.50 per doz.  
Steel tubular, \$7.50 to \$10.50 each.

**WRENCHES.**—Duty 30%.  
Agricultural, 60% discount.  
Alligator, 50 "  
Trim, pipe, 25 "

**WRINGERS (Clothes).**—Duty 35%.  
Canadian, \$26 to \$30 per doz.  
Popular Brands, \$16.50 to \$22 per doz.

**ZINC.**—See Metals.

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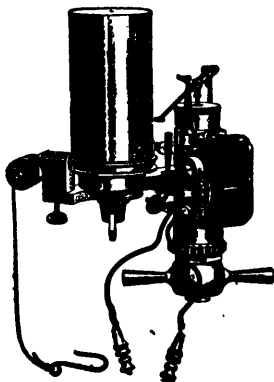
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