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Vol. 33.

TORONTO, DECEMBER 18, 1896.

No. 12.

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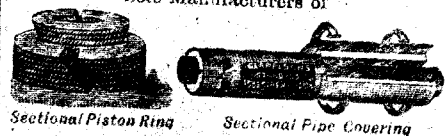
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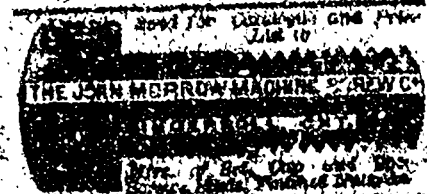
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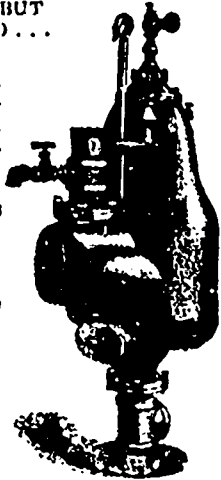
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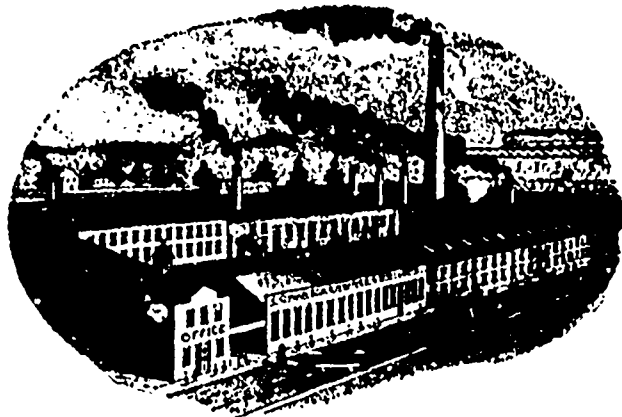
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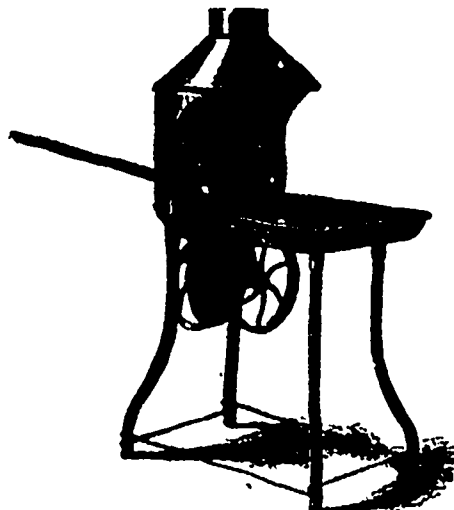
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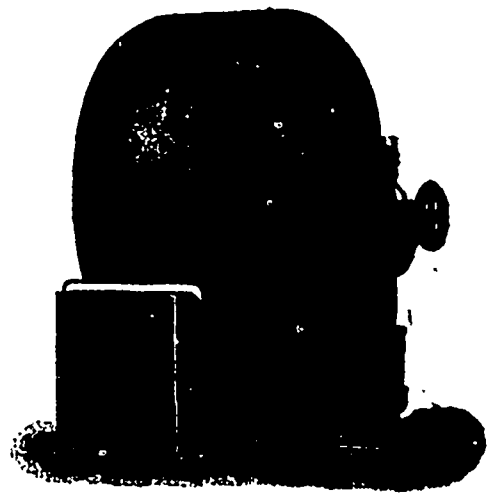
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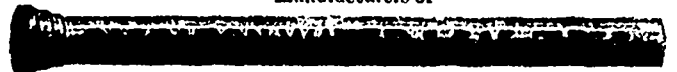
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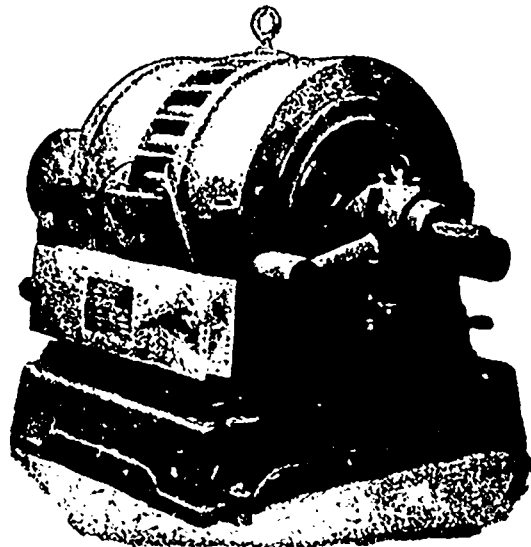
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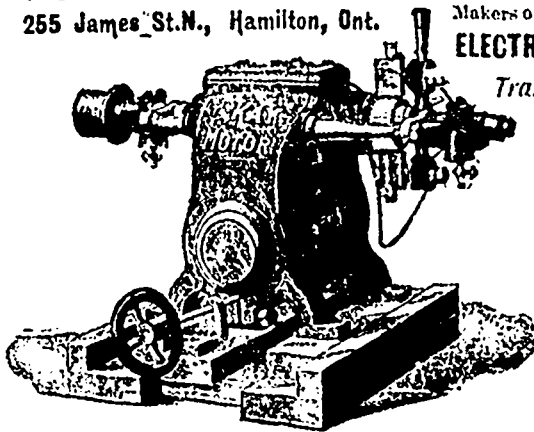
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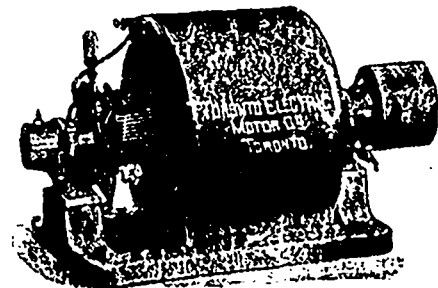
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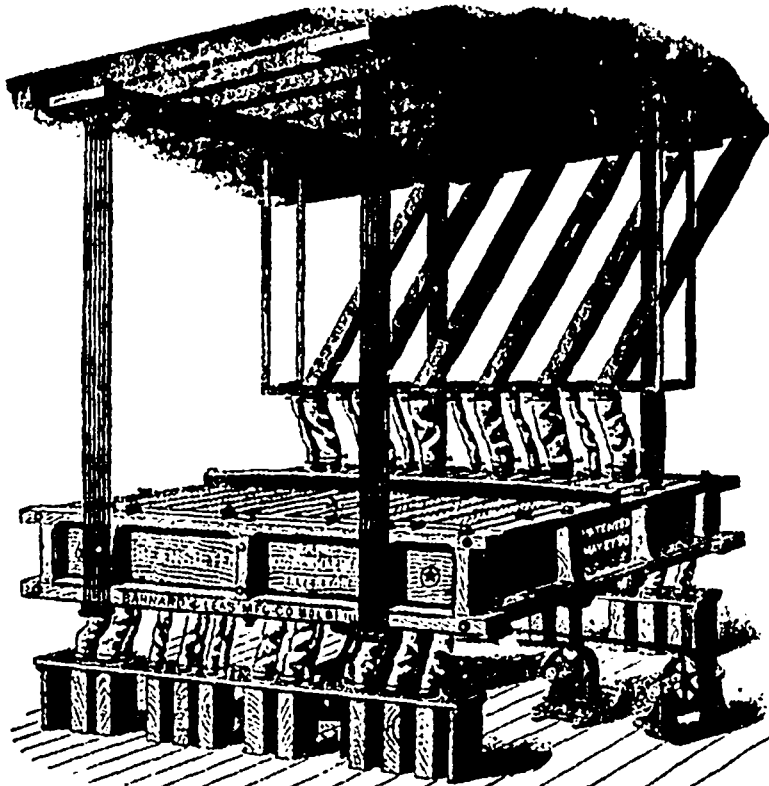
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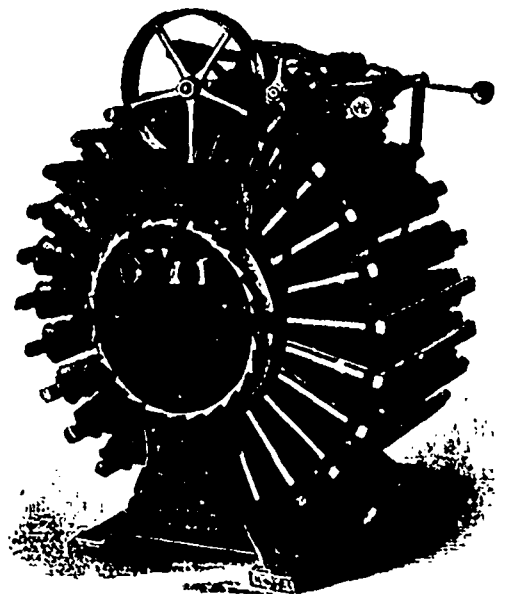
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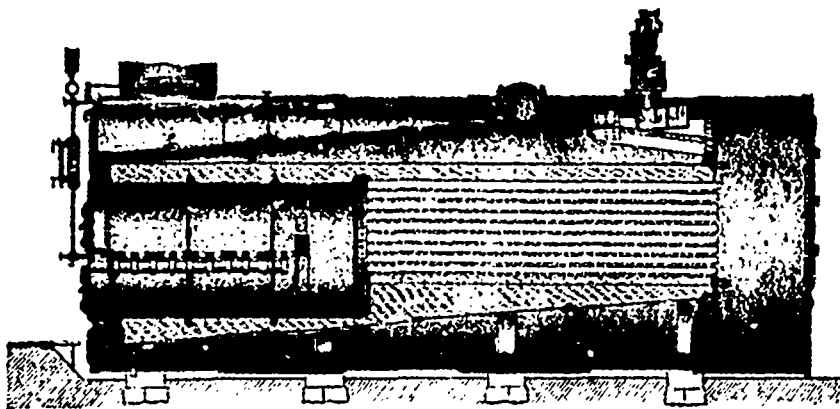
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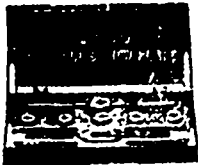
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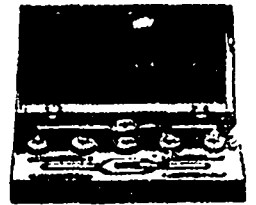
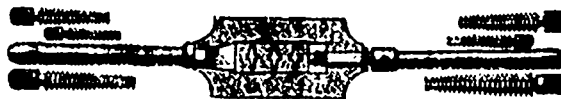
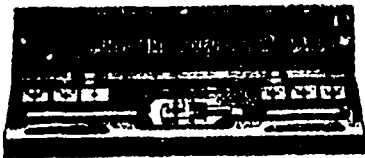


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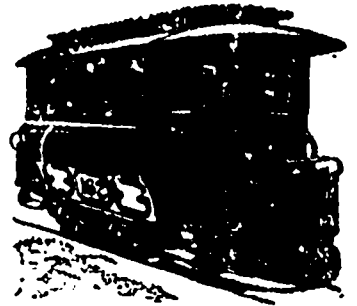
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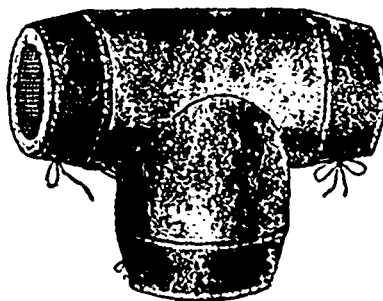
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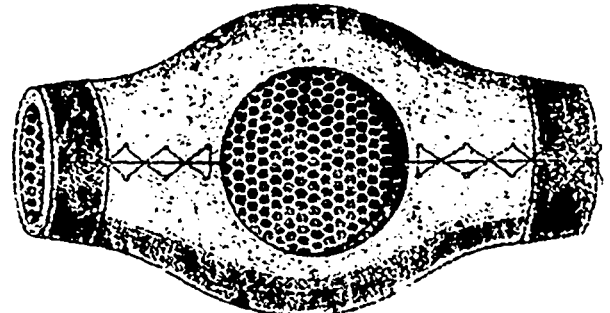
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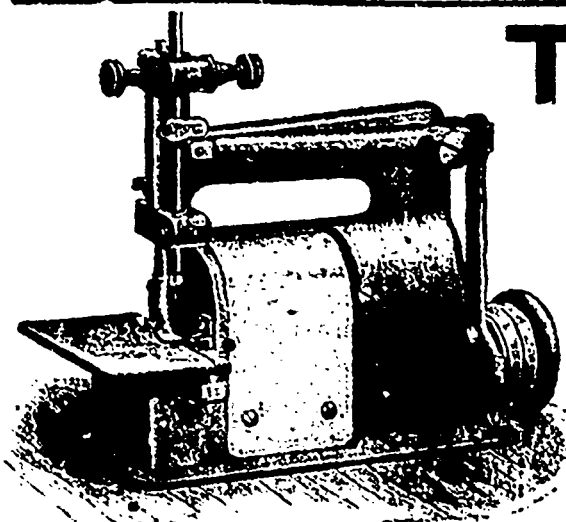
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ESTABLISHED IN 1880.

PUBLISHED ON THE FIRST AND THIRD FRIDAYS OF EACH MONTH

J. J. CASSIDY, - - - - - Editor

Subscription, - \$1.00 Per Year.

ADVERTISING RATES:

\$12.00 Per Column Inch per year; Thirty Inches to Page.

The Canadian Manufacturer Publishing Company, Ltd.

McKinnon Building, Cor. Melinda and Jordan Sts., Toronto.

J. J. CASSIDY, - - President and Treasurer.

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THE OTTAWA CANAL.

The CANADIAN MANUFACTURER has frequently expressed the opinion that any further enlargement of the Welland and St. Lawrence canals system, beyond that which is now being proceeded with, would involve an expenditure, the interest on which would exceed all benefit which could be realized. We have also thought that if it is considered necessary or advisable that Canada should make an effort to secure a part of the upper lake traffic that is now being conducted on vessels of too large dimensions and depth of water to use our Welland canal,

the cheapest and best route for that traffic can be provided by a canal, river and lake channel from the mouth of French River, on Lake Huron, via Lake Nipissing and Ottawa River to Montreal. Our advocacy of this route is based on the belief that it affords the most direct, the quickest and cheapest means of transportation from the west to the ocean; and, in addition thereto, would prove of immense local advantage to every interest and industry on both sides of its more than 400 miles of navigable waters. We have taken occasion time and again to condemn the short-sighted policy under which the Government and Parliament at Ottawa have allowed the valuable franchise involved in this project to pass into the hands of a private company. This was all the more culpable, as the company which applied for and obtained the act of incorporation, was not required to produce any evidence of its ability or readiness to proceed with the undertaking. If this important work is to be accomplished, decidedly it should be assumed by the Dominion Government, and when completed, should be operated in co-operation and not in competition with the St. Lawrence canal system.

The Mail and Empire of December 9th, in its correspondence from Ottawa, has an item headed Georgian Bay Canal, in which it states that the Government has under consideration the application of the promoters of the Ottawa and Georgian Bay Canal for assistance; and the proposals and reasons in support, as given by the promoter, Mr. McLeod Stewart. Some of the statements are not very intelligibly put. In one place it is stated that the bond issue authorized under the charter is \$20,000,000. In another place, that the company asks for permission to deposit with the Government a sum sufficient to pay the interest for twenty years at three per cent. per annum on the total bond issue of \$30,000,000. While the bonds of the company bear three per cent. interest, Government is asked to pay four per cent. on the company's deposit. The difference would form a very handsome annual bonus to the company. In addition to this, Parliament is to be asked to pay the company an annual bonus of \$250,000 for twenty years.

The cost of the canal is estimated at \$15,000,000. It is to be saddled with annual interest on \$30,000,000 bonds—\$900,000; dividend at six per cent. on \$10,000,000 stock, \$600,000; besides maintenance and operation. This is probably the fishiest prospectus ever issued by any company. They ask authority to raise by bonds and stock, \$40,000,000, to construct a work which, on their own estimate, will only cost \$15,000,000. There certainly seems to be a superabundance of liquified vapor in the proposition.

In estimating the probable earnings of the canal, the promoter says that the amount of tonnage which passed Detroit last year was close upon 25,000,000 tons, and that in four years, by which time it is hoped the canal will be completed, it will probably reach 32,000,000 tons; one-half of which will likely go to the Ottawa canal, but if not one half, one-fourth surely. This gives 8,000,000 tons on which the company expects to obtain canal tolls, fifty cents per ton, or \$4,000,000. This is more than twenty six per cent. on the cost of the canal. With such a result in view, the company need not trouble itself about financial arrangements with Government, nor should it ask for any bonus, but should be willing to offer a reasonable annual payment for its privileges. It is evident that the project is under bad management, and that those

entrusted with its promotion are profoundly ignorant of business affairs. The idea that even one-fourth of the tonnage now passing Detroit could, under any circumstances, be directed to French river, is too ridiculous to merit notice; and not less ridiculous is the opinion that any traffic on the Ottawa canal could bear the imposition of fifty cents per ton canal tolls. As this journal has repeatedly argued, the prospects for any new canal, or enlargement of existing canals, must be calculated as in competition with the Erie canal, when the extensions and enlargements now under progress there are completed, and by which the cost of transportation by that route will be reduced fully one-third.

The error in granting a charter to any company for this project has been made. It is altogether unlikely that the company can proceed without the assistance of the Dominion and Provincial Governments. Not one cent either by way of bonus, loan or guarantee should be granted until the company is organized with a bona-fide stock subscription sufficient to pay half of the cost of the work, the balance of the cost of construction to be met by an issue of a like amount of bonds, the payment of which might, under such circumstances, be guaranteed by the Governments named. But there must not be any such charge as fifty cents per ton for canal tolls.

SUGAR BOUNTIES.

The Toronto Globe, November 23rd, contains a labored article on the subject of sugar bounties, characterised by the usual presumption and lack of true discernment which it always exhibits when dealing with commercial questions. Passing over the fact that The Globe is far astray in its statements as to the rates of export bounties allowed in Germany on raw and refined sugar, and referring only to its deductions and arguments on the subject, we give a few quotations from its article. Referring to the negotiations now being conducted between Germany and Austria for the abolition of the bounties, The Globe says:—"This is an indication that the philosophic Teuton is gaining an advanced degree of common sense in the consideration of commercial affairs. . . They [the Germans], are still under the delusion that trade and manufacture are in themselves advantageous. They have not learned that trade is advantageous only when it results in a profit, nor that manufacture is an advantage only when products exceed expenses." The Germans have demonstrated during the past twenty years so much commercial intelligence, and such successful progress in agriculture, commerce and manufacture, that better informed and more experienced men than the writer of these platitudes should rather feel disposed to imitate their methods than to sneer at their policy. The Globe says: "In the delusion that trade was itself beneficial a losing trade was established with many nations, the bounties shifting the losses from the refiners and exporters to the whole people as tax-payers. . . Manufacture, too, under conditions of freedom, has no stimulus other than the excess of returns over outlay." (The expression "returns" is a very comprehensive one, and may and does include much more than the mere cash balance between the outlay and receipts of the factory.) "The commerce and industry of a free country indicate its gain, while under paternalism an extensive trade, like the German export sugar trade, may indicate an extensive loss. The Germans would be indeed stupid if they

could not learn from the object lesson at their door. They may still cling to their theories, but they will soon give up the effort to carry them into practice."

One of the most important errors in The Globe's statement of the position is, that the object of sugar bounties in Germany was to shift the losses from the refiners and exporters to the whole people. Such an expression is a clear indication that the writer thereof knows very little about the sugar question. As for the exporters, who are rarely manufacturers or refiners, the bounty does not benefit them, as they purchase their sugar on an export basis, bounty or no bounty. As for the refiners, most of whom buy their raw sugar from the manufacturers, the bounty does not benefit them, because they have to pay for raw sugar the same price as has to be paid by the refiners in the United Kingdom, United States, and Canada. The sugar bounties are designed and do operate for the benefit of more than four hundred beet sugar factories in the German Empire, and of the tens of thousands of farmers engaged in the production of sugar beets. If The Globe knows anything about the discussions which have been carried on for many years in the press, the Chambers of Commerce and the Reichstag of Germany, he must know that the bounty system has been sustained by agrarian influence, and for the benefit of farmers rather than manufacturers. The Deutsche Zuckerindustrie, in giving the results of the operation of fifteen standard factories in Germany in 1892-93, shows that for every \$1.97 expended at the factory for labor and material and all other expenses except the beets, there was paid \$5.25 for beets alone; the farmers obtaining for the beets over seventy per cent. of the whole cost of the sugar. The sugar bounty policy is pre-eminently a farmer's question. It does not suit The Globe's position, to show that protection or bounties can or do benefit farmers, therefore it conceals this important feature; and in its constant spirit of antagonism to the manufacturing industries, attempts to show that the people of Germany are unjustly taxed for the benefit of refiners and exporters.

The Globe endeavors to make its readers believe that Germany derives no compensating advantages from the bounty policy. We fancy that some of its intelligent subscribers will ask the question: Is it possible that a shrewd, intelligent, practical people like the Germans can have submitted for about thirty years to the maintenance of burdensome taxation for the benefit of a few refiners and exporters, and for the purpose of selling cheap sugar to the jam and confectionery manufacturers of Great Britain? If The Globe had been desirous of submitting a fair review of the question, it would have given the arguments by which the expediency and necessity of maintaining this policy have been justified. It would have shown that the universal opinion in Germany is, that bounties should never be granted except when absolutely necessary, and when the general prosperity of the country is to be benefited to an extent which justifies the bounty. The beet sugar industry is of an exceptional character in many respects, and especially so in Germany. There are there a little over 400 beet sugar factories in operation, which could work up all the beets produced in any season in about seventy to eighty working days. In 1894-95, over 1,700,000 tons of sugar were manufactured, of which over 1,000,000 tons must be exported. During 1894-95, and again in 1895-96, the price of beet sugar as well as of cane sugar averaged

much below the cost of production in every beet or cane-sugar producing country in the world. Owing to low prices the factories in Germany and other European countries reduced in the spring of 1895 the prices at which they made contracts for that season's beets. At the reduced prices for beets, and with all the economy in manufacturing that could be accomplished, the season's operations resulted in loss to most of the factories. The export bounties in Germany were lower than those in France. Under then existing legislation it was provided that the bounties should cease altogether in 1897. It was evident that under such circumstances most of the factories would be closed, and the most desirable and profitable branch of German agriculture would have to be abandoned. Rather than this should happen, the Reichstag felt compelled to extend and increase the export bounties, but the act authorizes the Government to suspend or repeal when any change in condition will admit. This The Globe condemns as paternalism, but it is a species of paternalism which must commend itself to all who are not wedded to the materialistic theories of Cobdenism.

One of the exceptional features of the beet sugar industry is the shortness of the working season in Europe, few factories averaging over seventy working-days. The fixed and uncontrollable expenditure bears a much larger proportion to output than in most branches of manufacture. A factory with a capacity for working 400 tons of beets per day, would, if working 100 days, produce 4,800 tons of sugar, if only worked for two-thirds of the time, would only produce 3,200 tons of sugar. The fixed charges for interest on cost of works, wear and tear of machinery and buildings, fire insurance, salaries for employees engaged by the year, etc., amount to over \$50,000, or \$15.62 per ton of sugar produced in factories working on two-thirds time, as compared with \$10.42 on full time, making a difference in cost of sugar of \$5.20 per ton, or twenty six cents per cwt. When the bounty system was instituted the consumption in Germany largely exceeded the exports. Every reduction in export value by means of the bounty made a corresponding reduction in the price paid by the home consumer, so that the amount expended in bounties was more than compensated by the reduced cost of sugar. Over one million acres of land are devoted to beet cultivation there, and even if no cash profit were derived from this crop, the acreage would be maintained because of the benefit derived from the land through the thorough cultivation and cleansing from weeds to which it is subjected. It is generally asserted that in the seasons following a sugar beet crop, the yield of grain is fifty per cent. greater than when following any other crop. From the beets unfit for the factory, and from the pulp and molasses, a vast number of cattle are fed and fattened, so that the dairy and cattle business is largely dependent upon the beet-sugar industry for success. It is not surprising that the farmers in Germany have insisted on the preservation of this industry, nor is it surprising that they succeeded in obtaining compliance with their demands. It was not because the German parliament was indifferent about the liability incurred, but because they felt that the increased bonus was necessary to the preservation of an industry in which \$100,000,000 of capital is invested, and in which about the same value is annually produced. The Germans believe that trade and manufactures are not a delusion in themselves, as The Globe says, but are a real and substantial advantage. They

believe that the maintenance of the beet-sugar industry will yield an "excess of returns over outlay," therefore they grant the bounty as the "stimulus," although the Globe says that this may indicate an extensive loss. The Germans are infinitely better judges of the value of this industry to the Empire at large than all the free trade theorists of England and Canada can possibly be. They have their own well-formed views as to the country's position and policy, and can afford to laugh at the foolish criticisms of the presumptuous scribblers who undertake to instruct them in matters of which these writers know so little. Whenever the Germans find that it will conduce to the interests of their country to discontinue the bounties they will do so. They are not so stupid in this matter as their self appointed adviser and critic of The Globe has shown himself to be in the article referred to.

THE TARIFF COMMISSION AND THE MANUFACTURERS.

In the December 4th issue of this journal was begun a very complete report of the testimony taken before the Dominion Tariff Commission, the sittings of which were begun in Toronto on November 17th. The report then published embraced only a portion of the testimony taken in this city, and we now have pleasure in continuing the same. This testimony, given by leading Canadian manufacturers and others, embodying their views regarding the tariff, possess considerable value to the whole country, and as we propose to continue to publish from time to time full reports of the testimony that may be given before the Commission in all parts of the country, it will be found that as a source of information regarding the views of the manufacturers on the tariff question, this journal cannot but be of great value. It will be observed that the views of all who testify, without regard to whether they may be from the standpoint of high protection, tariff for revenue only, or free trade, are produced as near as possible from the stenographic reports of the interview. The text of these reports will show at what city or town the interviews were held.

CONSUMERS OF PIG IRON.

Messrs. Edward Gurney, of the Gurney Foundry Company; Geo. H. Bertram, of the Bertram Engine Works Company; and Lyman H. Jones, of the Massey Manufacturing Company, all of Toronto, were unwilling to express their views regarding their business in the presence of others than the Commission, and their interview was therefore in private. At the close of the interview Mr. Bertram made the following statement for publication:

We were discussing the iron duties generally, with out reference to any particular industry. We urged that owing to the present duties on pig iron and bar iron being so much in excess of the duty on the finished article, some different arrangement should be made, and that a different method of developing the iron deposits of the Dominion should be adopted than that of taxing the users of iron to the extent that has been done for years past. The users of iron do not take this position out of any spirit of antagonism to the producers of pig iron and bar iron, but they think that it should be considered from the standpoint of the general interests of the country. It does appear at present as if there is no other way of bringing about the development of our iron deposits to any very great extent, except by means of a bounty, and a reduced duty, rather than by excessive taxation, which

runs from forty to fifty per cent., while the duty on the finished product averages only about twenty-seven-and-one-half per cent. We did not suggest any amount that should be granted as a bounty, and we do not advocate free trade, even in raw material. We are quite willing there should be a duty on raw material, but we hold that it should not be, as at present, so much in excess of the finished article."

RADIATORS.

The Toronto Radiator Company sent a deputation, composed of Messrs. Joseph Wright, David Carlyle, John Stark; and the managing director, Mr. J. M. Taylor, to ask that the tariff, so far as it affected the radiator industry, should not be disturbed.

At present there is a duty of twenty-seven and a half per cent. on radiators, and the deputation did not wish it lowered, but what they did ask was that radiator manufacturers be granted a rebate of the duty paid on pig iron used in the manufacture. At present sixty per cent. of the iron used in the manufacture of radiators was imported, because iron of a high standard was required. In the "facing" of the radiator soapstone and plumbago were used, and upon these finishing articles a duty of thirty per cent. was paid. Fire-brick for linings were also imported, and upon these the freight was fully one-third the cost.

Their special request was that the radiator manufacturers be paid a rebate of \$4.80 on all pig iron used. When questioned by Mr. Fielding, the delegates admitted that when they used Canadian pig iron they in reality paid the duty, because the cost of iron in Canada and in the United States was about the same, not taking the duty into account; but the Canadian iron-maker simply added the American duty to the article and so the consumer of Canadian iron paid it quite as much as if he had imported American iron. Therefore they asked for a rebate on all iron used. The delegates claimed that they were the only concern engaged exclusively in the manufacture of radiators. Their capital was \$91,000 and they employed 117 men, besides fifteen travellers. Being asked where competition would come from, the delegates said from Buffalo and Detroit. Still the American radiator manufacturers sold small lots at home at prices thirty per cent. higher than those obtained by Canadian manufacturers. Notwithstanding this they shipped surplus goods to Canada and sold them at cut prices. The Toronto company in six months could make all the radiators required in Canada for a year.

ELECTRIC MOTORS.

So as to give him an opportunity to compete in the American market, even with the United States tariff against him, Mr. J. C. McLaughlan, of the Toronto Electric Motor Company, asked that magnetic wire be placed on the free list. The duty now was thirty per cent. and as this wire comprised two-thirds of the cost of the dynamo or motor, it increased the value considerably over that of the American machine. Such wire was not manufactured in Canada. He asked that copper wire for the manufacture of electric motors to be exported, be placed in the free list. The gentleman seems to have forgotten that a rebate of ninety-nine per cent. of the duty is allowed in cases where such goods are exported.

READY-MADE CLOTHING.

The wholesale ready-made clothing interest of Toronto was represented by Messrs. T. O. Anderson, John Watson and

W. J. Johnston. Mr. Anderson said that the firms represented employed between 2,500 and 3,000 hands and that they paid wages aggregating three-quarters of a million of dollars a year. They thought that the tariff should be left pretty much as it is. The present rate is thirty per cent. and five cents a pound, equivalent to about forty per cent. Upon the piece goods imported by the clothing manufacturers they pay twenty-five per cent. and five cents a pound. About half of the woollens used by the manufacturers come from England and the other half is made in Canada. The members of the deputation would not admit that on the home-made goods they paid the equivalent of the duty, but they did concede that they had to pay a portion of it. A reduction of duty on the finished article without a corresponding reduction upon the raw material, they said, would so seriously embarrass the trade that the manufacturing would be done in Yorkshire instead of in Canada. The market would be flooded with shoddy goods from abroad that, because of the cheapness of British and foreign labor, would undersell the native product.

If any reduction was to be made in the tariff the deputation asked that the prices of raw material be proportionately reduced. They did not desire the specific duty done away with under any circumstances, as it would allow the poorer class of goods to flood this market.

In reply to a question regarding probable changes in the tariff, Mr. Fielding said:—"We are not going to decide such an important question in a hurry, I can assure you, gentlemen."

CANADIAN CARPET-MAKING.

A delegation representative of the carpet section of the Manufacturers' Association composed of Major J. A. Murray and F. B. Hayes, Toronto; R. Dodds and A. R. Burrows, Guelph, appeared before the Commissioners. Major Murray read the following statement, setting forth the position and desires of the recently started industry of carpet-making:—

The ingrain carpet trade of Canada has for years struggled under many disadvantages. They had first to convince the public that carpets made in Canada were equal if not superior to imported goods. This difficulty has now been nearly overcome, helped very much by giving the different grades of carpet strictly Canadian brand names; but a great difficulty still remains, and that is the unloading on the Canadian market of the surplus production of the enormous American ingrain plants. There are more ingrain looms in operation in the United States than in any other country in the world, and the mills are quite willing to sell the over-production away below cost in Canada rather than disturb their own market by selling at low figures. This is particularly so in the union carpets. The imports in 1889 were 47,300 yards, and in 1895 they had increased to 130,600 yards, of which 130,600 yards imported in 1895 111,800 yards were brought in from the United States at an average cost of twenty-three and three-fourth cents, being as a rule a low, trashy carpet, but which, nevertheless, cut into our trade and left our mills idle.

We do not ask the Government for an increase of duty, but we do request them to protect us by putting an upset price of not less than fifty cents on all wool and thirty cents on union carpets. You will notice that as late as 1893 the average price of wool carpets was fifty-five cents and of unions thirty-four and one-half cents, and it is only since the Americans started to flood our markets with their surplus that the average price of wools has come down to forty-five and one-half cents and unions to twenty-eight and one-eighth cents. The carpet trade of Canada is an important one and capable of great expansion if properly protected by the Government.

Axminster carpet and rugs are now made in Canada, which are rapidly cutting out Brussels and the best grades of tapestry velvets. A memorandum of total imports of Brussels and tapestry from 1889 to 1895 is submitted proving the assertion and showing what a large consumer of carpets Canada is and how a large manufacturing business could be built up in carpets here if properly protected. There is even now a possibility of exporting the Axminster carpet, a prominent firm in Kidderminster having asked for samples to put on the road. The increase of five per cent. on three-quarter goods, which the Government put on them years ago, helped this carpet very much, and we believe the promise of a specific duty on three-quarter carpets would induce capitalists to start a Brussels mill in Canada, and certainly a specific duty would keep out a lot of low grade tapestries and increase the demand for union ingrain. We desire to call your attention to the distinctly Canadian features of our trade. Our employees are all Canadians, with their homes, hearts and ambitions all centered in Canada; our raw material yarns are made in Canada by Canadian workmen, and we trust that the Government will not in any way harm our young industry by any changes in the tariff which will be detrimental to our interests.

The duty on manufactured carpets is twenty five per cent. and five cents per yard, the average in 1895 being thirty-six per cent. But the duty on the raw material of the carpet manufacturer is far beyond this point. Four grades of yarn are used. No. 1 yarn costs in England \$13 per hundred pounds and pays a duty of \$7.60, equal to fifty-eight and one half per cent.; No. 2 yarn costs \$11 per hundred pounds, duty \$7.20, or 65.45 per cent.; No. 3 yarn costs \$9, duty \$6.80, or seventy-five and one-half per cent.; No. 4 costs \$8, duty \$6.60, or eighty-two and one-half per cent. While the average duty on the finished article is thirty-six per cent., the average on the four grades of yarn is sixty eight and seven-eighths per cent., the excess of duty on the raw material being 32.78 per cent. over the duty on the finished article. Mr. Burrows, who is manufacturing chenille curtains and table covers at Guelph, said that he had great difficulty in carrying on the industry with a thirty per cent. duty, especially as his raw material, consisting of cotton, was taxed twenty-five per cent. He asked for these increases:— Chenille curtains below \$2 in value, twenty-five cents a pair and thirty per cent.; above \$2 in value forty per cent.; table covers costing \$1 a dozen, fifty cents a dozen; above \$1 a dozen, forty per cent.

Samples of Axminster carpet and ingrained goods made in Toronto were submitted to the Ministers for inspection.

It was explained that yarns form the raw material for carpets, and they are all manufactured in Toronto, with the exception of jute yarn, which is produced in Dundee. The protection on yarns amounts to sixty nine per cent. In 1895 the average duty on carpets was thirty six per cent., so that raw material enjoys an excess of protection over the carpets to the amount of 32.78 per cent.

Major Murray stated that the Americans sent in goods at such low prices that they must lose money on them.

Mr. Hayes explained that point at further length, and pointed out that the manufacturers of the United States had not a sufficiently large market for all they produced. Rather than shut down they kept their mills going, and disposed of their surplus in Canada. This composed the bulk of Canadian importations.

Mr. Fielding asked whether Canadian manufacturers would

not, if they had a surplus stock on their hands, cut prices in order to obtain the market at a distance.

The reply was that while the American manufacturers cut the rates in this country they did not do so in their own market, and the quotations for American goods in the United States and Canada were very different.

Mr. Burrows asked for the retention of the present duty of thirty per cent. on chenille curtains, and the imposition of twenty five cents on curtains valued at \$2 a pair. On chenille table covers costing \$4 per dozen he would like the duty to be fifty cents per dozen and forty per cent. ad valorem.

UNDERTAKERS' SUPPLIES.

The firm of Philp & Eckhardt, Toronto, manufacturers of caskets and undertakers' supplies, was represented by Mr. A. J. H. Eckhardt. At present the duty on casket cloth, the raw material, is twenty-five per cent., and five cents per pound, whereas collins and caskets covered, or the finished product, pay a duty of twenty-five per cent. He asked that the specific tax of five cents a pound be removed from the cloth, so as to equalize the two. Another point in which the duty discriminates against the Canadian manufacturer was mentioned by Mr. Eckhardt. Satins for linings are taxed thirty per cent., while if they are imported in a manufactured coffin or casket they pay only twenty-five per cent. He asked that this anomaly be removed. A further request made by Mr. Eckhardt was that the manufacturers of undertakers' supplies should be placed in the same position as the makers of hats and caps, who are allowed to import cut satins free. Mr. Eckhardt informed the Commissioners that his firm had been doing considerable exporting to the West Indies and South America, and they had several calls for business in South Africa. They had found it almost impossible to export to South Africa because of the high freight rates that had been exacted. This difficulty had, however, been partially overcome. He suggested that the Government should take steps to protect exporting manufacturers from excessive freight charges on subsidized steamship lines. Mr. Eckhardt declared his firm to be satisfied with the tariff on the finished product. They did not object to its being removed altogether if the United States would do the same, as they practically controlled the market here, and with equal conditions they were prepared to reach out for business across the borders in other countries.

Mr. Eckhardt, in his reply to Mr. Fielding, admitted there was an association of manufacturers in his line of business, but claimed that no loss to the public resulted on that score. The public were getting twenty-five per cent. discount on every \$100,000 of business done, which was equivalent to \$25,000, while a few years ago they only received five per cent. off. Of late there had been a great cheapening in the price of raw materials. It was far better that manufacturers should conduct a successful business and make a fair profit than that the factories should be closed and employees deprived of work. He would not view with alarm the removal of Canadian duties provided the same thing was done in the United States. He believed he could compete on equal grounds with the manufacturers on the other side.

MANUFACTURES OF JUTE.

Mr. John Dick of Dick, Ridout & Co., jute manufacturers, had no change to recommend, but asked that he might be

advised if other persons interested in jute desired a change in any of the duties. Jute is very cheap, indeed. His firm make coarse bags, binder twine and shop twine. There is no complete industry in Canada where jute goes through all the processes of spinning, weaving, finishing, cutting up and sewing. The rough jute to make bags is imported free. There are four manufacturers in Canada, no foreign competitors because of difficulties of storage and quick supply, no local combine, and there is twenty per cent. protection against foreign competition.

THE TWINE INTEREST.

Mr. W. B. Stewart, of the Dovercourt Twine Mills, and Mr. John Lecky, Toronto, asked that there should be no change in the duties on supplies which they manufacture for fishing and sporting purposes. Mr. Lecky, who is a manufacturer of flags also, asked that the duty on flags be increased, or that on hunting reduced.

CORSETS.

Mr. Frederick Crompton, of the Crompton Corset Company, Toronto, appeared before the Commission and complained of the undue competition of American manufacturers, who ship their surplus goods into the country at a lower rate than they supply the trade in the United States. For the protection of the home industry Mr. Crompton recommended the imposition of a specific duty of \$1 per dozen on the finished product in addition to the present ad valorem duty of thirty-two and one-half per cent. This would help to prevent under-valuation and preserve the market to the home manufacturers.

FRINGES, CORDS AND TASSELS.

Mr. W. G. Allen, representing White, Allen & Co., Toronto, manufacturers of fringes, cords, tassels, etc., for upholstering purposes, appealed against the tariff, which was twenty-five to thirty per cent. on the finished product, namely, the cords, tassels, fringes, etc., and thirty per cent. on the raw material. The raw material consisted of silk, cotton and chenille yarns. Wool yarns, which were manufactured here, did not enter into the manufacture of this firm's goods. He asked that the duty at present on the materials mentioned be reduced.

PIANO MANUFACTURERS.

The piano manufacturers, represented by Messrs. G. C. Royce, of Whaley, Royce & Co., and Geo. C. Heintzman, of the Heintzman Piano Company, both of Toronto, preferred to be heard in camera. At the conclusion of the interview, however, these gentlemen stated that they desired the duty on pianos left as it now is, namely, thirty-five per cent. They further asked that the duty on veneers and piano hardware be reduced. On the latter the tariff now is twenty-five per cent. Walnut veneers now come in on a ten per cent. basis, and foreign woods at five per cent., and they urged that walnut be placed under the head of foreign woods and admitted at the five per cent. rate.

PIANO ACTIONS.

Mr. A. A. Barthelmes, manufacturer of piano actions, illustrated one of the anomalies of the tariff by exhibiting a sample piano action on which the duty is twenty-five per cent., and various articles of piano action hardwares the raw material on which the impost runs as high as fifty-two per

cent. Among these articles were screws upon which a specific rate of eight cents a pound is imposed. He also had samples of felt at thirty-two-and-one-half per cent., and other cushion cloth taxed twenty-seven-and-one-half per cent. Mr. Barthelmes, who employs fifty hands and claims he makes half the piano actions used in Canada, pointed out the great advantage it would be to the industry he is engaged in if the excessive tax imposed upon his raw material which aggregates \$1 or \$5 on each action were removed or reduced. In the conversation which took place between him and the Ministers it was stated that last year about 5,000 and the year before about 6,000 pianos were manufactured in Canada. Practically the Canadian manufacturers control the market in this country. Mr. Barthelmes stated that his firm had exported a considerable number of auto-harps to Australia, but that the German manufacturers were offering very keen competition. He was not aware of the provision whereby ninety per cent., of the duty upon raw material used in the manufacture of goods for export is refunded and he has therefore made no application to the Customs Department for a refund on his exportations.

VINEGAR.

The vinegar manufacturers of Ontario, represented by Messrs. E. B. Charlton, president of the Hamilton vinegar works; Wm. Marshall, manager of the same establishment; F. H. Yapp, of the Dominion vinegar works, Hamilton; T. A. Lytel, Badgerow and Scott, and W. H. Wilson, Toronto; Wm. Murray, representing Haaz and Company, Kingston; and S. Allen, of Norwich, composed a deputation of those engaged in that industry. They also elected to exclude the news paper reporters. These gentlemen have a grievance, but why they should be so secret about presenting it is not clear. They pay an excise tax of six cents a gallon on vinegar made under Government inspection to secure its fitness for domestic use. They pay the Government \$600 annually towards the support of an inspector, who is always at the factory. At the same time they claim that others are making a vinegar for commerce which is merely acetic acid with a small portion of sulphuric acid. Acetate of lime is produced by the destructive distillation of wood; sulphuric acid then detaches the lime, leaving acetic acid. Traces of the stronger acid remain. The law is framed to prevent the sale of this stuff, but the deputation claim that the law is not enforced, and they desire that it should be hereafter. The impure stuff is said to be secretly made in out-of-the-way places, as secretly as though it were illicit whisky. They therefore asked that acetic acid, on which there is at present no duty, be taxed six cents per gallon, the same as vinegar, and that it also be manufactured in bond, as vinegar had to be manufactured from bonded spirits.

The mistake of these manufacturers was that they should have endeavored to prevent the facts included in the presentation of their case to the Commission to be made public. The public have a right to know just why they require protection.

ACETIC ACID.

On the first day of the tariff enquiry a deputation of the vinegar interests appeared before the Commissioners, and were heard in private. Among other things they asked that the Government place an inland revenue tax on acetic acid, equivalent to that now on vinegar, namely, six cents per gallon. The vinegar men also contended that acetic acid was unfit for us

in food, and further, had not the preservative powers of vinegar. As a result of this the manufacturers of acetic acid arranged for an interview with the object of refuting these statements, and appealing against the suggested internal excise tax on acetic acid. This deputation was composed of Messrs. A. G. Peuchen, of A. G. Peuchen and Company, Toronto; James H. Bowman, representing the Canada Chemical Company, London; and W. H. Evans, of the Canada Paint Company, Montreal and Toronto.

Mr. Peuchen said that there were four concerns in Canada at present manufacturing acetic acid and they employed valuable plants. His firm had a plant of \$20,000 in that particular line. There was no other country at present imposing an internal revenue tax on acetic acid. In Germany acetic acid was sold by the bottle, on the outside of which were directions how to use it in making vinegar, thus giving the poor people cheap vinegar. A great deal of acetic acid was used by pickle manufacturers, with the result that pickles which cost \$3.00 for a five-gallon bucket five years ago now sold for \$1.50, including the bucket. The Peuchen firm also manufactured Paris green, on which they had a small protection of ten per cent. They were satisfied with this duty if they were not interfered with in the acetic acid department. The proposed tax would affect both departments of the business. Last year 710 tons of Paris green were manufactured and a large amount of labor was employed. Mr. Peuchen submitted to the Commissioners the following certificate from Prof. Ellis:—"I have examined a sample of acetic acid obtained from your works. I find it consists of pure acetic acid 96.5 per cent. It contains no mineral acid, no metallic impurities and answers other tests of purity satisfactorily. It is not injurious when diluted and used as vinegar."

Prof. Bowman, who besides being interested in the Canada chemical works has charge of the department of chemistry in the Western University, said that three years ago the firm commenced the manufacture of acetic acid and vinegar. Shortly after the last revision of the tariff an order in Council came into effect which prevented the use of acetic acid in making vinegar. His company went on manufacturing acetic acid and stopped making vinegar. If the proposition of the vinegar men were adopted it would force them out of the business of making acetic acid. Prof. Bowman quoted many eminent authorities in controverting the charge of the vinegar makers that acetic acid is unhealthy. He said the vinegar men who employed the alcohol process were protected against external competition very fairly, and now they wanted protection from internal competition also. The acetic acid manufacturers are quite willing that the inland revenue tax of six cents a gallon now exacted from the vinegar men should be removed, but they objected to the imposition of a tax on acetic acid.

JEWELRY AND FANCY CASES.

Mr. H. K. S. Hemming, representing Messrs. Hemming Bros. Company, Toronto, manufacturers of jewelry and fancy cases, whose interview at his own request was in secret, asked that the duty on manufactured cases remain the same, but that such raw materials as silk, satin, plush and velvet not produced in Canada be placed on the free list when imported by fancy case makers.

This was another instance where a manufacturer very

unwisely asked that the reporters be excluded from his interview with the Ministers, and explains why he is desirous of having the duty on his products remain as it is, while that upon what he calls the raw material be removed. Fancy cases such as Mr. Hemming manufactures, and the silk, satin, plush, velvet, etc., of which they are made are not necessities of life, but rather luxuries.

SPAR GOODS.

Mr. J. S. Russell, importer, asked that the duty on spar goods, which was now on a thirty-five per cent. basis, be reduced to the same as that in the American tariff, namely, twenty-five per cent., so as to allow the Canadian importer in this line to compete more favorably with the United States merchant. He urged that the duty on gold and silver lace and fringes, used on regalia, be made more uniform, as at present complications sometimes arose as to under what head certain articles in this line should be classified. Regarding walking sticks, the duty at present was twenty-five per cent., and on trimmings for such thirty per cent. Umbrella makers could get in these same trimmings free. He desired this remedied in some way. He was to an extent an importer of curling stones, and would urge upon the Ministers the necessity of allowing the tariff on these to remain unaltered: they now come in free of duty.

Mr. Russell, he it observed, being an importer, does not desire that any duty be imposed upon curling stones, but he neglected to direct the attention of the Ministers to the fact that while this article, an article of luxury entirely, and in no manner necessary for the welfare of the country, comes in duty free, the rough granite of which they are made is liable to a duty of 20 per cent. This is an incongruity that the Government should remedy—not by removing the duty from rough granite, but by imposing a duty upon curling stones.

SURGICAL INSTRUMENTS.

Drs. McPhedran, Oldright, Fraser and Wilson presented a memorandum urging that the duty on surgical instruments and apparatus be abolished. There are none now made in Canada. Certain appliances for the relief of spinal and other deformities are made here, but the doctors do not refer to articles of this class. A doctor's kit, according to Dr. Oldright, costs on the average \$500, apart from microscopes. The desire is to have instruments used to perform surgical operations or to determine the necessity of operations admitted without duty. Dr. McPhedran made the statement that although there is a large duty on such articles in the United States, doctors are permitted to bring in for their own use scientific instruments purchased in England or Germany without duty. Dr. McPhedran also stated that many doctors purchase articles used only once or twice on cases from which they receive any remuneration, but which they frequently employ in the interests of science on cases where adequate remuneration is impossible and at times not even sought. He thought apparatus for hospitals should be free of any duty impost inasmuch as it was desirable always to have the newest inventions. Sir Richard Cartwright remarked as the deputation rose that there is a great deal to be said on grounds of public policy for the free admission of scientific apparatus. The doctors also want the duty removed from books on medical or other scientific subjects, as they are already very expensive and constantly changed,

ARTISTS' MATERIALS.

A deputation headed by Hon. G. W. Allan appeared to ask for the abolition of duties on the materials used by artists in the composition of works of art. Mr. Allan pointed out that there are no artists' colors, canvas, academy board, or water-color paper manufactured in this country and that their manufacture is confined to a very few firms. Good progress has been made by the artists of Canada despite the fact that there are as yet very few wealthy patrons of art, and Mr. Allan advanced the opinion that the Government should increase their facilities by removing the duties on the articles necessary to the work. Further than this, young men and women are engaged in the art schools in designing for various decorative industries. The speaker thought encouragement should be given to this attempt also, and pointed out that the duty of thirty per cent. on already expensive materials constitutes a decided hindrance to its success. In the matter of brushes and pencils the Commissioners thought there might be some difficulty in discriminating between the goods used for artists and those to be used in commercial pursuits, but it was demonstrated that the utter dissimilarity of size, quality and price would readily remove doubts on that point. The deputation were very favorably received.

GOLD LEAF.

Mr. C. H. Hubbard, Toronto, manufacturer of gold leaf wanted an increase of duty of from twenty five to thirty per cent. Gold leaf is used in gilding frames, and is worth \$20 an ounce. Mr. Hubbard's output is about \$20,000, but the importation far exceeds that. He wants to be protected against cheap German labor. While it cost \$6 to make 4,000 leaves by hand in Canada, the same work in Germany only costs \$1.50. A number of firms had started in this country, but owing to German competition had to shut down.

LAUNDRY AND TOILET SOAP.

A deputation composed of Messrs. C. C. Dalton, representing Dalton Bros., and John Taylor, representing John Taylor & Co., Toronto, who were accompanied by Mr. Fred Richards of the Richards Soap Company, Woodstock, Ont., asked for a re-adjustment of the duties on laundry and toilet soap. Two years ago the duty on laundry soap was one-and-one-half cents a pound; now it is one cent a pound. Mr. Dalton said that if the Government could not return to the duty of two years ago he would like the duties on the raw materials removed or reduced. Resin and chemicals were free, but there was a duty of twenty per cent. on tallow and cottonseed oil. He stated that the price of domestic soap was lower in Canada than anywhere else in the world. Mr. Taylor spoke more particularly as a manufacturer of toilet soap. The duty on this article, he said, was formerly ten cents a pound and ten per cent., but it had been reduced to thirty-five per cent. at the last tariff revision. He thought that a specific duty of five cents and an ad valorem duty of five per cent. would be satisfactory.

SAPOLIO.

Mr. Emil Poliwka, the Canadian representative of Sapolio, was given a hearing. He asked specially for the removal of the present duty on this article. It was rated at thirty-five per cent., as high a rate as toilet soaps. Sapolio, he claimed, did not enter into competition with any soaps, as it was purely a

scouring or cleaning article, and could not possibly be used in the laundry or for washing purposes of any kind. It had been formerly rated at twenty per cent., and he would not object to this duty being again imposed. He also suggested that it might be classed with common or white soaps at a duty of one cent to two cents per pound. He further asked for the removal of the duty on posters, etc., used by him in advertising his goods. The tariff now was six cents per pound.

Mr. Paterson desired to know if the lithographing could not be done in Canada instead of importing such work. Mr. Poliwka thought it could if the quantity distributed were large enough, which at present was not the case.

This is another case of an importers' porcine voracity. The name Sapolio is copyrighted, and whether any other than the manufacturer of that article is able to produce an equally good article or not, it cannot be sold or offered for sale under that name. It is not true that it does not enter into competition with any soaps, as there are many Canadian manufacturers who make soaps that they claim is quite as good for scouring and cleaning purposes as Sapolio. It is refreshing, too, for this representative of a foreign manufacturer to ask for the removal of duty on posters used in advertising his goods, while, as Mr. Paterson intimated, all such lithographing work can be done in Canada.

CROCKERY AND GLASSWARE.

The china, decorative art, crockery and glassware importers were represented by Mr. John Gowans, of Gowans, Kent and Company; and Mr. J. S. McMahon, of McMahon, Broadfield and Company. Mr. Gowans thought the present duty a reasonably fair one. They had not come to ask for a general reduction in the tariff, but the trade might stand a slight decrease. They would object, however, to any increase in the duty. What was desired was a more uniform tariff. The present tariff could easily be simplified with great benefit to the trade and the Government. All earthenware and china should be classified under one head, and all glassware, excepting such as plate glass, under another. The present duty varied from twenty to thirty per cent. Glassware had one rating, tableware another, vases, lamps and lamp goods others. Decorative chinaware should be fully protected. Plain china was being admitted at twenty per cent., and the same duty was also levied on decorative ware. This made the duty on both the raw and manufactured article the same. Before retiring the gentlemen referred to the fact that manufacturers of plated ware were importing glassware for mounting purposes at a lower rate of duty than the china merchants could, owing to the present state of the tariff. The two firms represented claim that they practically control the local output, but have to buy also very largely from England, Germany and Austro-Hungary. They did not want a reduction of duty, thinking thirty per cent. all round about right.

GRANITE.

D. McIntosh & Sons, Toronto, asked that grey granite for purposes of manufacture be relieved of duty. It is the raw material of their industry. Most dealers do not manufacture but bring in the polished stone. The firm buy in Vermont and Massachusetts, as the Granite from Ontario, Quebec and other Provinces is not so good a quality. It contains many flaws, and will not be accepted by purchasers. The duty is now twenty per cent. On a block of stone of, say, \$10 value

the labor would amount to \$25 Scotch granite is always brought into Canada in the finished state, and this must continue to be, as stonecutters' wages are less in Scotland.

THE SEEDSMEN.

Messrs. James Goodall, George Keith, S. E. Briggs, J. A. Simmers, and Robert Rennie, representing the principal seedsmen of Toronto, urged a number of reforms.

Mr. George Keith, speaking for the deputation, requested the removal of the duty on all clover and grass seeds coming into Canada. There was only a small proportion of these seeds required by the farmers for seeding purposes grown in this country. At present the duty was ten per cent. The greater part of the seeds used were imported from the United States. Certain lines came from Germany and France. They desired that the duty on other seeds under the heading of agricultural seeds in the tariff list remain unchanged, and that clover and grass seeds alone be specified as on the free list.

Mr. Briggs stated that a grievance regarding other seeds was that pound packages coming through the post were only charged a postal rate of eight cents per pound, while parcels from Canada to the other side were charged a postal rate of sixteen cents.

Mr. Fielding and Sir Richard Cartwright explained that any appeal in this respect would have to be made to the Postmaster-General.

The deputation objected to the railway rates on seeds from Canadian points. For short distances in Canada they were obliged to pay higher rates than for long distances where an American station was the terminus.

THE TYPOGRAPHICAL UNION.

A deputation representative of the Toronto Typographical Union, and composed of Messrs. Geo. Dower, John Armstrong and Wm. J. Wilson, made a plea on behalf of the workingman. Mr. Dower, as the chief spokesman, said that they did not think that the workmen of the country were protected enough. An increase of the duty on stereotype plates was asked for. It was pointed out that the present duty of one-eighth of a cent per square inch on newspaper plates was wholly inadequate, bearing in mind that the composition price here cost six or seven cents a square inch. With respect to book plates, the duty was two cents a square inch. This represented only sixteen cents a thousand for composition, while the ordinary price in Canada was thirty cents a thousand. If the duty were raised Canadian printers would largely benefit by having this work to do. Then, too, the manufactured book was only taxed six cents per pound, while the duty on material used in the manufacture of books stood away up. While protection lasted the workmen wanted a share of it. Emphasis was laid on the fact that through the contract for the Presbyterian hymnal being given out in England all the mechanical work would be done in that country, to the disadvantage of the workmen here. It was said that the work could not be done as cheaply here as in England, but the deputation insisted that such was not the case. The Canadian printer had no opportunity of showing that he could do just as cheap work, because he was not given a trial. Mr. Armstrong urged that the duty on paper used in the production of newspapers should be increased.

THE BOOK PUBLISHERS.

A large delegation of this guild waited upon the Ministers,

those present being Messrs. A. S. Irving, Dr. Wm. Briggs, Richard Brown, W. J. Gage, D. A. Rose, Wm. Bryce, H. L. Thompson, of the Copp, Clark Company, and Mr. Roberts, of the Standard Publishing Company, all of Toronto.

Mr. Irving presented a memorandum asking:--

(1.) That fashion magazines be allowed in free to booksellers, as they are now to subscribers.

(2.) That the regulation providing that books for public libraries come in free of duty be amended so that duty should be paid on all books purchased by libraries, and a rebate allowed on certificate being forwarded to Ottawa.

(3.) That books for college purposes may be brought in by booksellers on the same terms as when bought by colleges direct.

(4.) That prayer books and hymn books be subjected to the six-cent a pound rate.

Mr. Irving asked that all fashion magazines be admitted free of duty, the same as other magazines. Regarding prayer books and hymn books, they asked that a duty of six cents per pound be imposed, as such are now free. He then drew the attention of the Commissioners to the fact that under the present Customs house regulations, books specially imported for public libraries and mechanics' institutes are admitted free of duty, and asked that, if, after consideration, it be found desirable to continue these exemptions, a change be made in the plan of admitting such books free of duty, so that, while the present advantages may be continued to the libraries, it shall be done without being detrimental to the interests of the bookselling trade in Canada. To this end the deputation suggested that as the present method of allowing books for incorporate libraries to be imported free of duty has been found to have a very injurious effect upon the bookselling trade of the Dominion by placing the libraries in a position to buy from foreign markets at lower prices than at home, because of the duty paid by the importing booksellers, they would therefore pray that all books for libraries, whether imported by libraries direct or by booksellers for the use of the libraries, be charged the regular duty, but that after the books have been placed in the libraries a list of the same, together with invoice from place of purchase, duly certified by president and secretary of the library, shall be forwarded to Ottawa within thirty days from date of purchase, and a rebate equal to the amount of duty paid be refunded to the library. This would enable public libraries to buy from booksellers in Canada who have stock on hand, upon which duty has been paid, instead of compelling them to buy from foreign houses in order to save duty.

SODA WATER.

Mr. Wm. A. Verner, Toronto, manufacturer of soda water, stated his grievance as follows:—In the manufacture of soda water he used great quantities of carbonic acid, a natural product of Saratoga Springs, New York. This acid had to be brought into Canada in steel tubes. He had tried to have these tubes manufactured in Canada, but could not. In importing the acid he was obliged to pay duty on the steel tubes every time they entered Canada. He had paid duty as often as thirty-six times on the same tubes, and would ask that they be admitted free after once paid for, marked, and properly identified by the Customs-house authorities. The tubes contained about twenty-two pounds of acid, and the duty on

them was twenty per cent. The late Controller of Customs, Mr. Clarke Wallace, had remedied this evil, but it had again come into force. Mr. Wallace had said it was an unfair tax. Sir Richard Cartwright here stated he agreed with Mr. Wallace.

On December 9th the Tariff Commission held another seance in Toronto, when the following transactions were had ;

BLANKETS.

Mr. Reuben Millichamp, of Messrs. Millichamp, Coyle & Co., Toronto, in behalf of the local manufacturers of blankets, made the following statement :--

"Canadian blankets are made from Canadian grown wool. Medium grades of imported goods are made from a low grade East India wool and shoddy. A medium quality of English blanket would cost about 42½ cents per pound. The Canadian manufacturer sells a first-class all pure wool blanket at about the same price, and in very large lots about two cents less. The Canadian manufacturers have kept on using pure Canadian wool, producing the best wearing blanket, and intrinsically the cheapest blanket in the world. We have no machinery at present capable of working up as low a grade of stock as is used by the English manufacturer, nor are our work-people accustomed to it, therefore we cannot compete with low-grade English goods, which would be imported if the specific duty was removed, that is, unless the ad valorem was increased sufficient to equalize the present rate. The English manufacturer, with his specially adapted machinery and highly skilled labor, can and does produce an article which in appearance is as fine looking as the superior Canadian blanket. The English blanket is so cleverly manipulated and finished that the ordinary consumer is deceived and does not know what a worthless article he has purchased until he begins to wear it.

"If the English manufacturer put clean wool into his blanket of the same quality and strength of staple as used by Canadian makers we should not ask for any protection whatever. We want protection from inferior and shoddy goods; we can hold our own when pure wool is used. The removal of the specific duty would seriously effect the blanket business, not in any too flourishing a condition now, owing to the keen competition for orders among the Canadian manufacturers themselves. Within the past two years we have suffered from the introduction of cotton, and mixed cotton and wool blankets from the United States which have the appearance of wool and are very sightly. They can be sold in Canada for about half the price of all wool. These have displaced thousands of pairs of Canadian wool blankets, very considerably lessening the demand for all wool goods, so that the outlook for manufacturers is not by any means hopeful nor encouraging. It is to be hoped that the tariff on blankets will be allowed to remain as it now is. We do not ask for an increase, a higher duty would not increase the price of Canadian goods, local competition would keep down the price. The blanket manufacturers have no combination or association of any kind."

At present the duty is twenty-five per cent. and five cents a pound, or from 40 per cent. to 56½ per cent

Mr. Fielding asked Mr. Millichamp if this was not to be regarded as a pretty high duty.

Mr. Millichamp admitted that it did appear large, but that

it was necessary to keep out the cheap, shoddy goods which could not be made in Canada and which displaced better goods.

WOOL STOCK.

Some good evidence as to the benefits derived from a protective tariff was given by Messrs. George Smith, of the Smith Wool Stock Company, Toronto; and Alfred Parker, of the New Toronto Wool Stock Company. Mr. Smith stated that he had come to Canada in 1870, and had started the first factory here for the manufacture of shoddy or wool stock. At that time a protective tariff existed. The wool cuttings, rags, etc., which enter into the manufacture of shoddy at that time were going to waste. Now, however, there were seven factories in Canada turning out first-class shoddy, which was being used largely by manufacturers of Canadian cloths. These companies give employment to 1,000 persons, to whom they pay out in wages \$5,000 each week, or \$260,000 yearly. Every week 80,000 pounds of shoddy was turned out of these factories, or 4,160,000 pounds yearly. The value of this weekly production was more than \$6,000, or \$312,000 for the yearly output. As the cost of coal, insurance, acids, dye-stuffs, and labour in England was so much less than here, and the Canadian manufacturer having to pay 30 per cent. duty for his machinery, the deputation felt that the Canadian factories could not operate successfully under a lower tariff than the present of twenty per cent.

Mr. Parker, who had been in business in the West Riding of Yorkshire, England, for 20 years, and had manufactured in Canada for the past 13 years, knew the benefits to the country derived from the protective tariff. He had seen free trade in England, and did not want to see any of it here.

UMBRELLAS.

The Irving Umbrella Company, Toronto, represented by Messrs. Reuben Millichamp, and Geo. T. Irving, presented the following statement :—

"We have a factory furnished with a complete equipment of modern machinery for making umbrellas and parasols, enabling us to manufacture at the lowest cost of production, and finishing our goods in the very best manner. We have no combination or association of any kind. Under the present tariff we can compete with imported goods. The business was commenced a little over two years ago, in a small way. It is only within the last year that we have completed our plant and got fairly started on our present basis. We have had very serious difficulties to surmount in educating our work people, and overcoming the prejudice at first manifested by importers against Canadian-made umbrellas, which has now entirely disappeared. The duty on covers is 30 per cent. The material is a finished article, but to us it is a raw material, and comprises about 65 per cent. of the material used in the umbrella. On imported goods the duty is 35 per cent. All we ask is that if the duty is lowered on imported goods that we should have a corresponding reduction on the material used for covering, and the fittings, etc., allowed to remain at the same rate of duty as at present. None of the material used for the manufacture of our goods are made in Canada—everything has to be imported."

In reply to Mr. Fielding, Mr. Irving stated that the company employed on an average 100 people. The labor was all skilled. The girls' wages ranged between \$3.25 and \$7.50.

and men's from \$7.50 to \$13.50. Umbrellas were much cheaper in Canada than the United States. The American goods were of the same standard, but cost the people there more. The English umbrella, which was the chief and only competitor in this market, was of an inferior make.

AGRICULTURE IMPLEMENTS.

Messrs. E. G. Ffolkes, of the Wilkinson Plough Company, Toronto Junction; and Mr. H. W. Fleury, of the J. Fleury Sons' Company, Aurora, Ont., had each a request to make.

Mr. Ffolkes asked for free pig iron, free coal, and free fuel oil, and a reduction in the duty on steel.

Mr. Fleury asked that he might be put on the same footing with respect to duties as other manufacturers who use the same class of raw materials. He objected to the rebate of 50 per cent. on material contained in goods exported, on the ground that it produced unfair conditions of competition.

Mr. Fielding—If raw material were free, and your ploughs were free, you would get your market wherever you could; that is the natural way.

Mr. Fleury replied that if the Canadian market were thrown wide open, and the Canadian manufacturers did not have access to any markets in return, it would not be equal terms.

In the course of discussion Mr. Fleury stated that his firm were selling in Manitoba at American prices. They had to make this concession to the dealers in order to get the trade.

CHILLED IRON ROLLS.

Mr. J. G. Greey, of Messrs. William and J. G. Greey, Toronto, manufacturers of flour mill machinery, opposed any reduction in the duty of 25 per cent. on chilled iron rolls. If any change were made it should be in the direction of an increase, and not a decrease. A specific duty would be more satisfactory and stop under valuation.

STEEL HALTERS, CHAINS, SNAPS, ETC.

The Oneida Community, was represented by Mr. G. W. Noyes. This company, which is incorporated in the State of New York, with a capital of \$600,000, has a branch establishment at Niagara Falls, Ont., for the manufacture of steel chains, traps, snaps, etc. Mr. Noyes asked that no reduction should be made in the duty on his finished product, otherwise it would be cheaper for his company to remove its factory to the United States and manufacture there on account of the difference in the cost of raw material. He suggested a reduction of the duty of \$10 a ton on certain forms of steel.

DENTAL INSTRUMENTS.

Mr. H. McLaren, Toronto, manufacturer of dental supplies, told how he had lost business through the lowering of the tariff on his instruments. Where formerly his goods were sold, now dealers purchase in the United States. Mr. McLaren wanted the old tariff reinstated.

EMPLOYING PRINTERS.

The employing printers, bookbinders, and publishers, of Toronto, sent the following deputation to acquaint the Commissioners with the views of their trades:—Messrs. Dan. Rose, D. A. Rose, James Murray, A. E. Rutter, W. Apted, and James Dudley.

Mr. Dan. Rose read a memorial which had been drawn up with respect to the tariff. Immediate action was urged in the

matter of a Copyright Act, on the lines suggested and agreed upon between the British authorities and the Canadian Copyright Association, and the statement was made that the admission of plates for books free had been a great advantage to the trade. With respect to books, it was said:—"We are of the opinion that a change could with advantage be made in the tariff on books, so as to promote the bookbinding industry, and would suggest that unbound books be continued at six cents per pound, and the rate on bound books be increased from six to eight cents per pound, and that hymnal and prayer-books be taken from the free list and added to the dutiable: such changes will not effect the price to the consumer." With respect to subscription books, bound or in sheets, the view was expressed:—"This is a most important item to the trade. The United States copyright law affects the item, as, under that law, if copyright is desired in the United States, the type for the book must be set there. The effect of this is that all the subscription books used in Canada are now being imported (except those on local subjects), it being cheaper to pay the present duty of six cents per pound than to ship a duplicate set of plates, but with an increased duty on the book a large percentage of these books would be made here, and the price to the public would not be affected, while employment would be given to papermakers, printers and bookbinders. The present duty is six cents per pound, and we would suggest that it be increased to ten cents per pound." Other suggestions made were that the duty on papers used by the trade should be reduced from thirty-five per cent. to twenty-five per cent., that strawboard for bookbinders' purposes be reduced from thirty cents per 100 pounds to ten per cent., that the duty on wire for bookbinders' use be made free, as when imported by boot and shoe manufacturers for use in their sewing machines; that duck for covering blank books, be admitted at a rate of ten per cent. instead of twenty per cent., when required for bookbinders' use; that bookbinders be accorded the same privilege as glove manufacturers, and allowed to import leather at ten per cent. instead of 22½ per cent.; that the duty on type, galleys, cabinets, type stands, type cases, brass rule, wood furniture, metal furniture, and printers' patent blocks, and quoins, ranging from twenty per cent. to thirty-five per cent., be reduced to ten per cent.; that advertising pamphlets be brought into the same class as advertising matter, dutiable at fifteen cents per pound, and twenty-five per cent., instead of paying as at present, six cents per pound, and twenty per cent.

COATED PAPERS.

The coated paper and cardboard interests, represented by Mr. F. A. Ritchie, of Ritchie and Ramsay, Toronto, desired the continuation of the present protective tariff. The firm had started business in 1893, and was doing a large trade in Canada. It was the protection given by the late Government to the manufacturer that had caused the company to begin business, and if the tariff was to be lowered in any way it would be impossible for the firm to compete with the United States manufacturer. The firm manufactured entirely for the home market. Their plant was a most expensive one, and on account of the duty and freight had cost forty per cent. more than similar machinery had cost their American or German competitors. The company contemplated putting in a new plant for the manufacture of enamelled goods, but would not

do so if the tariff was to be altered. The firm paid about double the amount in wages to employes than the United States manufacturers paid, and three times the amount of the German or English manufacturer. His raw materials on an average cost him about twenty-five per cent. Paper was the chief article, and on this the duty was twenty per cent. He always gave preference to Canadian raw materials, but some of them he could not use. The duty, he intimated, on some raw material was too high, and might with advantage be lowered.

BAKING POWDERS, SPICES, ETC.

The manufacturers of baking powders, flavoring extracts, coffee, spices, etc., were represented by Messrs. Dalton Bros., A. Jardine of A. Jardine & Co., J. W. Todhunter and W. A. Mitchell of Todhunter, Mitchell & Co. J. W. Cowan of J. W. Cowan & Co., all of Toronto. A deputation suggested a uniform duty of ten per cent. on whole spices and three cents a pound and ten per cent. on ground spices. It was represented that it would be advisable to increase the price of green coffee by placing a duty on it. A better plan would be to put a small specific duty on tea. It was suggested that ground coffee mixtures should not be sold as pure coffee and that a regulation be enforced making it necessary to state on the label the presence of foreign ingredients. The present duties on baking powder and flavoring extracts was said to be satisfactory. It was proposed that a rebate of seventy per cent. of the excise duty paid on alcohol used in making extracts should be allowed in respect to goods imported. Mr. Cowan presented the case of the manufacturer in regard to chocolate. The present duties are four cents a pound on cocoa and chocolate paste, and twenty per cent. on all preparations of cocoa and chocolate. It had been suggested that the distinction between sweetened and unsweetened cocoa and chocolate be done away with, and that the tariff item should read: "Cocoa and chocolate, sweetened and unsweetened, and all preparations and manufactures thereof be five cents," he substituted. Mr. Wilson thought this would be a fair proposition, but he personally believed in ad valorem duties as being fairer to the consumer.

RATTAN GOODS.

Messrs. C. E. Pease of the American Rattan Company, Toronto; and James G. Hay of the North American Bent Chair Company, Owen Sound, Ont., were heard privately. They asked for a continuation of the present tariff of thirty per cent. on furniture, and thirty-five per cent. on baby carriages. The tariff as a whole was very satisfactory to his firm, and they desired no change.

PICTURE FRAMES.

The manufacturers of picture frames and mouldings appeared before the Commissioners, represented in the following gentlemen:—Messrs. F. J. Phillips and C. Phillips of the Cobban Manufacturing Company, W. L. Mathews, George Woltz and W. Adamson, all of Toronto. They desired to protest against any reduction in the duties on frames and mouldings, and rather wanted the present duties increased. Their firms were the principal ones in Canada, employing about 500 hands and paying about \$200,000 yearly. Their chief material was basswood, oak and pine lumber, but they imported Dutch metal and silver leaf, which was their raw material.

They suggested that the duties might be reduced on these two latter articles. When recently the duty on mouldings had been reduced it had worked injury to their business. They had to stand American competition, and firms on the other side would sell their goods twenty per cent. cheaper in Canada than in the United States. Many American firms also employed child labor, and thus enabled them to produce cheaply. The deputation desired the Government to increase the duties on mouldings to thirty per cent. and on frames to thirty five per cent. In answer to Hon. Mr. Fielding one of deputation stated that what they wanted briefly was free raw material and higher duties on their finished product.

BICYCLES.

Mr. E. C. Hill, Toronto, appeared, as he said, for the importers and consumers of bicycles. He questioned the accuracy of disparaging statements by the bicycle manufacturers with respect to machines entering at a low rate of duty. Let the duty be removed, and he would sell a \$60 wheel for \$50.

COTTON DUCK FOR BICYCLE TIRES.

Mr. Richard Garland, manager of the Dunlop Tire Company, Toronto, stated that in the manufacture of tires his company used all home made materials with the exception of a special cotton duck, manufactured in New York. On this his raw material there was a duty of twenty-two and one-half per cent., which he desired removed, or, at least, reduced. He explained that the duck was manufactured on a fifty-eight inch loom, and could not possibly be produced in Canada. He had endeavored to have it made here, but none of the Canadian factories could produce it. It was of special construction for the tires.

KINDERGARTEN SUPPLIES.

Messrs. William and John Selby, of Selby & Co., Toronto, manufacturers of kindergarten supplies, preferred a request that the duties on paper goods and wooden goods should be reduced. The firm manufactures most of its paper goods, and some wooden articles. The effect of the reduction would be to lower prices, and enable the firm to sell at the same rates as on the other side. It would also cause a greater consumption of the goods, and result in an increased educational benefit to Canada.

DRAWING MATERIALS.

Messrs. W. B. Gordon and W. A. Langton, appeared on behalf of the Ontario Architects' Association, and asked a removal of the duties on drawing materials. The tariff, they stated, was not a protective one, as these articles were not manufactured in the country, and contributed but a small amount to the revenue.

RAMIE FIBRE.

Mr. John Dwyer, of the Calvert, Wilson, Dwyer Company, Toronto, requested the commission to have ramie noils placed on the free list. This is a vegetable fibre not grown in Canada, which much resembles cotton. The fibre is largely used as a substitute for cotton when mixed with woolen goods, and, pound for pound, is more valuable than cotton. It is better for certain classes of goods than cotton, and is woven into blankets, hosiery and cheap grades of silk. Mr. Dwyer claimed that ramie noils did not come into competition with any established Canadian industries. Blanket manufacturers

largely used this article. If rumie were on the free list manufacturers would utilize it much more extensively. At present the tariff prevented more than a limited quantity from being imported.

FRUIT COMMISSION DEALERS.

Toronto fruit and commission dealers were represented by Messrs. H. W. Dawson, G. C. Husband, Geo. McWilliam and J. P. Clemes. Mr. Clemes, speaking for the deputation, said that the fruit and commission men were strongly in favor of ad valorem duties. It was in the interest not only of fruit producers but of importers. The following changes were recommended.—Pears, twenty per cent to forty cents a barrel; apples, forty cents a barrel to twenty-five cents; tomatoes, twenty cents per bushel and ten per cent. to twenty-five cents a bushel; cranberries, twenty-five per cent. to thirty cents a bushel; potatoes, fifteen cents a bushel to ten cents a bushel, plums, twenty-five per cent. to thirty cents a bushel; grapes, two cents a pound to one cent a pound. It was requested that pineapples, bananas, dates, figs and nuts, peaches, strawberries, cherries and apricots be maintained at the existing rates. Complaint was made that importers are required to pay duty on packages, especially oyster baskets, on which toll is taken every time they come into Canada. The deputation said that the fruit-growers would still have control of the market if the duty on grapes was cut in two. At present the duty amounts to about 200 per cent.

A SPECIMEN FREE TRADER

An amusing incident occurred when Mr. Alfred Jury, the well-known Toronto politician, appeared before the Commission, and, addressing Hon. Mr. Fielding, remarked: "I received your letter, Mr. Fielding, but really I cannot in any sense represent the Trades and Labor Council. I am a consumer of course, but everyone, I think, knows my views—I am opposed to all tariffs."

Mr. Fielding interrupted any further remarks of this character by stating that he had written to Mr. Jury to be present, as he had not been heard when the Commissioners were last in Toronto.

A CONSUMER.

Mr. James Dempster, Toronto, a builder of bakers' ovens, claimed to be a consumer, and desired permission to describe the unfortunate position, as he termed it, of the workman. The latter was a victim to the practice of buying in the dearest and selling in the cheapest market. The manufacturer had his raw material and his finished product. His case was quite as deserving as that of any manufacturer who asked for free raw materials and protection for his finished products.

BRITISH EMPIRE TRADE LEAGUE.

At the meeting of the Tariff Commission held in Toronto, December 9th, the following delegates to the Third Congress of Chambers of Commerce of the British Empire; namely Mr. J. Castell Hopkins, from the Canadian Manufacturer's Association, and Messrs. E. B. Osler, Frank Arnoldi, William Christie, J. K. Osborne, W. F. Cockshut, Frederick Wyld and E. A. Wills, from the Toronto Board of Trade, appeared before the Commission and submitted the following concise statement regarding preferential trade within the British Empire, which we desire to place on record in these pages.

To the Chairman and Members of the Tariff Commission.

GENTLEMEN.—The Toronto delegates at the Third Congress of the Chambers of Commerce of the British Empire which met in London, on June 9th, 12th, 1896, beg to submit the following considerations as having an important bearing upon the commercial and fiscal interests of Canada, and as being worthy of attention in connection with any revision or change in the Tariff of the Dominion:—

First.—That the Congress was the largest and most representative gathering yet held: that the delegates came from Canada, Australia, New Zealand, South Africa, the West Indies, and from all the chief centres of industry or trade in the British Isles; that the Honorary President who opened its deliberations was, and is the Colonial Secretary in a powerful Imperial Cabinet, and made a speech which created a wide and favorable discussion, and declared clearly and distinctly in favor of preferential relations upon a basis of free trade within the Empire and limited protection without: that the discussions indicated much preliminary differences of opinion but finally resulted in an unanimous support to the following resolution:—

"That this Congress of Chambers of Commerce of the Empire, is of the opinion that the establishment of closer commercial relations between the United Kingdom, and the Colonies and dependencies is an object which deserves and demands, prompt and careful consideration. The Congress therefore respectfully represents to Her Majesty's Government that if the suggestion should be made on behalf of the Colonies, or some of them it would be right and expedient to promote such consideration, and the formulation of some practicable plan, by summoning an Imperial Conference, thoroughly representative of the interests involved, or by such other means as Her Majesty may be advised to adopt."

Second.—That the delegates and speakers at this Congress included not only such prominent public men as Mr. Chamberlain, Sir Albert Rollit, M.P., Lord Knutsford, late Colonial Secretary; Sir Donald Smith, Canadian High Commissioner; Sir John Lubbock, M.P.; Sir Samuel Montague, M.P.; the Hon. Robert Reid, of Victoria, Australia; Sir Howard Vincent, M.P.; the Hon. John Henry, of Tasmania; Sir William des Voeux, Sir C. F. Blaine and Hon. W. P. Reeves, of New Zealand; but the Presidents of the Liverpool, Cork, Swansea, Plymouth, Blackburn, Manchester, Birmingham, and London Chambers of Commerce, and representatives from those of Belfast, Bradford, Leeds, Edinburgh, Aberdeen, Dundee, Newcastle, Croydon, Nottingham, Sheffield, Sydney, Melbourne, Cape Town, Trinidad and Kimberley, as well as from the Canadian Boards of Trade in Montreal, Ottawa, Winnipeg and Toronto.

Third.—The resolutions passed, therefore, deserve consideration as well as the fact that these representatives of all schools of fiscal thought and policy combined to ask for an official Congress to enquire into the practical steps which may be taken to carry out preferential trade and develop Imperial unity. Hence the importance of the resolution already quoted and those which follow:

1. "That as a first step towards Imperial Federation it is desirable that a Consultative Imperial Council should be formed, whose members for the time being should be resident in England. That the Council should be called together in cases where the interests of the Colonies represented were affected in matters of Trade, Finance, or Imperial Defence. That this Council should consist of members elected by every self-governing Colony in some adequate and relative proportion to its electorate, and that its functions should be purely consultative. That the Crown Colonies should also be represented on this Council."

Fourth.—That Mr. Chamberlain outlined in his opening speech a policy of free trade within the Empire and British duties upon foreign corn, meat, wool and sugar, and that such a pronouncement is worthy of the most careful consideration by the Canadian Government, apart from the questions of detail or principle, and is remarkable as being a marvellous evidence of change in the spirit of British statesmanship, since the day when Lord John Russell, as Liberal Prime Minister, the Earl of Derby, as Conservative leader and ex-Premier, Mr. Lowe, Mr. Bright and Mr. Cobden were all in favor of Canadian and Colonial Independence, and cared little or nothing for the commercial interests of Greater Britain.

Fifth.—That the feeling and situation of to day is voiced in the following extracts from speeches by Lord Salisbury, Lord Rosebery, and Mr. Chamberlain:—

Lord Salisbury, at the Lord Mayor's Banquet, in November, 1891:—

"Remember that Great Britain is a power which holds her vast supremacy in commerce, and her great political pre-eminence, by reason of the dominion which she exercises in many lands in various parts of the globe. On that supremacy, and on that pre-eminence depend her wealth, her industry, the success of her manufactures,

of her commercial speculations, and, if you come to the end, the wages of every workingman. Cut off these great possessions, and England unable to feed more than a third of her population, will be unable to maintain, in any comfort, the vast multitudes who now inhabit her soil."

Lord Rosebury, at Epsom, on July 24, 1896:—

"Year after year our Consuls, and our various officials of the Board of Trade, have called the attention of the community to the fact that we are no longer, as we once were, undisputed mistress of the world of commerce; but that we are threatened by one very formidable rival, at any rate who is encroaching on us, as the sea encroaches on weak parts of the coast. I mean Germany. . . . The heads of the indictment against ourselves are three. First, that the proportion per head of exported British produce is £8 1s. 0d. in 1872, whilst it had sunk to £5 11s. 3d. in 1891. Of course you may say that reduced prices account for some part of that, but I do not think you will find reduced prices do account for it when you observe the broad features of the balance of trade, and also of the German increase of trade. Secondly, the imports of German manufactured goods into Great Britain rose from £16,630,000 in 1883, to £21,630,000 in 1893, —an increase of thirty per cent. in ten years of manufactured goods into the country, which believed it had almost the monopoly of supplying the world with manufactured goods. The total imports into Great Britain declined in value £22,000,000 between 1883 and 1893 in gross, but the imports of manufactured articles increased by over £13,000,000. I think that these are grave and striking facts."

Mr. Chamberlain, at Birmingham, on March 30, 1895.

"I find that there are a number of people, and I think an increasing number, who, under the present condition of trade, are coming to the conclusion that our free trade policy has been a failure (cheers), and who would, therefore, be ready to go back in the direction of protection. I am not one of those who think that an opinion of this kind held as it is by many worthy and intelligent people, is to be treated lightly. On the contrary, I think it ought to be carefully considered, carefully discussed, and seriously treated."

Sixth.—That the following general figures of British export trade show the importance of the Colonial demand for British goods:—

Exports 1891.	To Foreign Countries.	To British Countries.
Total Cotton Manufacturers	£31,094,330	£23,605,037
“ Glass “ “	350,383	415,557
“ Iron and Steel “ “	10,210,499	6,112,413
“ Leather “ “	506,227	1,513,128
“ Linen “ “	4,010,178	764,962
“ Machinery, etc. “ “	10,136,080	3,781,463
“ Silk “ “	866,684	648,119
“ Woollens and Worsted	12,947,033	4,567,002
Total Manufactured Exports.	91,922,148	1,657,000
Total partially Manufactured Exp'ts	25,997,779	4,190,784

Seventh.—That the following table of the purchases of British goods by different countries per head of their population in 1893 shows how beneficially any policy which built up the Colonial's would react upon the commerce and export trade of England:—

Austria.	£0 12	Australasia.	£17 00
Russia.	0 12	Canada.	7 00
Germany.	1 70	West Indies.	12 70
France.	1 68	Cape Colony and S. Africa.	20 00
United States.	1 84	Hong-Kong.	30 00

It is also worthy of note, the delegates think, that Great Britain exports under present conditions half as much to the Colonies as to all the rest of the world—in 1893 the figures being £146,979,764 to foreign countries, and £72,015,101 to British possessions.

Eighth.—The delegates beg to state that since the Congress met the Golden Jubilee has been held and was remarkable from the absence from its celebrations of any leading Ministerial statesmen and for the pessimistic statements of the British press regarding free trade and its lack of progress. Of these comments many were condemnatory of Goldenism as being unfitted to present day circumstances in England—the most noticeable being those of The Standard, The Morning Post, The Sheffield Telegraph, The Manchester Courier, The Newcastle Chronicle, The Nottingham Guardian, The Shrewsbury Chronicle, The Belfast News-Letter, The Bolton Chronicle and The Cardiff Western Mail. Most of these and many others favored some form of preferential trade.

Ninth.—It is also an important fact that the National Union of Conservative Associations of England and Wales have since

declared unanimously in favor of the same policy, and that Mr. John Lowles, M.P., has recently returned from a visit of inquiry to Australia, and announces, in an elaborate report, that Sir Hugh Nelson, Premier of Queensland; Hon. C. C. Kingston, Premier of South Australia; and Sir E. Braddon, Premier of Tasmania are all favorable to preferential trade. Mr. Reid, Premier of New South Wales, is in favor of closer union, but awaits details of the scheme, while Mr. Turner, Premier of Victoria, "will be guided by public opinion." Since then Mr. Sedon, of New Zealand, has carried that country in a general election upon the same policy.

All these facts the delegates at the recent Congress would respectfully submit as being a very limited and partial statement of some of the considerations which enter into this great problem, but which they deem worthy of being presented to, and considered by you. They have not thought it advisable to refer to the benefits to Canada under such a policy, as they are so generally admitted but have simply given a glimpse of what may be termed the British side of the movement. It remains in their opinion for Canada and the Canadian Government to give it an impetus in the direction of assured success through cordial co-operation with the present leaders and rulers in the United Kingdom.

Hamilton is to be congratulated on securing the establishment of a branch of the great Westinghouse company. The company has purchased the McKechnie property in the north-eastern part of the city, and will employ a large number of men. The credit in connection with the successful conclusion of the negotiations between the city and the company is in a large measure due to Hon. J. M. Gibson, who has particularly interested himself in securing this industry. It should not be forgotten, however, that were it not for the old N.P. there would be no necessity for the company locating this industry in Hamilton. A United States law makes it necessary for all freight cars used over there to be fitted with air-brakes. As Canadian cars are continually interchanging with the United States roads, the Grand Trunk, Canadian Pacific and other large railway corporations have to similarly equip their cars. It would cost \$12 per car duty to bring the mechanism into Canada, consequently the Westinghouse people find it cheaper to establish a branch here, where they will give employment to citizens, use Canadian iron and otherwise benefit the community and the country.—Hamilton Spectator.

LITERARY NOTES.

X-Rays by Edward P. Thompson, a book of 130 pages is a timely work dealing technically with the Roentgen Rays and phenomena of the Anode and Cathode. The author states in the preface that in view of the tremendous amount of experimenting which has been carried on during the past few years in connection with the electric discharge, it was difficult to determine just how far back to begin, realizing that it was necessary to go back further and further until he had reached certain investigations of Faraday, Davy, Page, and others, so that the work describes a series of experiments leading up to the recent discoveries of what is known as the Roentgen Rays. The chapter relating to applications of X rays in anatomy, surgery, diagnosis, etc., is of special interest to physicians. D. Van Nostrand Company, 23 Murray street, New York, are the publishers.

The Canadian Almanac for 1897 contains a great amount of practical and valuable information. This is the fiftieth year of publication of this well-known annual, and its size has been increased to 354 pages. Among the new features are a short history of Canada giving the main events in Canadian history, chronologically arranged, an historical diary of the years 1895-96, and an interesting article on the King's Loyalists. The regular departments have been brought up to date and include, a Post Office Gazetteer of the Dominion, an official directory of the clergy, militia and government officials, both Dominion and Provincial, county and municipal officers, etc. The usual mass of interesting statistics and astronomical calculations is given, and the almanac is embellished with engravings of prominent persons and public buildings. Published by The Copp-Clark Co., Toronto.

The Montreal Witness, this being its jubilee year, has been printing ever since last December a weekly page of the reminiscences of its early readers who still survive, many of which have been of fascinating interest, and all of which have been full of eager and hearty good will for the paper which has been to the writers a life long councillor and family friend.

CAPTAINS OF INDUSTRY.

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

If a new manufacturing enterprise of any kind is being started, or an electric lighting plant instituted, or an electric railroad, or a 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, belt-ling, lubricants, machinery supplies, wood or iron working machinery, ventilating and drying apparatus; pumps, valves, packing, dynamo, motors, wire, arc and incandescent lamps, and an infinite variety of electrical supplies, chemicals, acids, alkalis, 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 Dodge Wood Split Pulley Company, Toronto, have pleasure in informing their numerous customers, and the users of power generally, that they are now in a position to supply a high grade of turned and polished steel shafting, in any length or diameter, with either flange or grim death couplings, also hangers of any drop, in any style, all of most modern design, and with either plain or self-oiling boxes. They also manufacture pulleys of all kinds, friction clutches, belt tighteners, rope driving, and a full line of power transmission specialties. The company request that parties fitting up or making extensions should not overlook the Dodge Wood Split Pulley Company, 74 York street, Toronto, when asking for tenders.

The Boiler Inspection and Insurance Company, Toronto, are sending out a hand some calendar for 1897, printed, it is said, from the first steel engraving that has ever been made in Canada.

The Toronto Basket Manufacturing Company, Toronto, has been incorporated with a capital stock of \$24,000.

The Laidlaw, Watson Shoe Company, London, Ont., is being incorporated with a capital stock of \$24,000.

The Jordan Willow Beach Harbor Company, is being incorporated with a capital stock of \$50,000, to construct and operate a harbor at Twenty-Mile Creek, in the township of Louth, Lincoln County, Ont., to build docks, buildings, etc. W. B. Gilleland, St. Catharines, Ont., is solicitor for applicants.

The Walker Oil and Gas Company of Bothwell has been incorporated with a capital stock of \$250,000.

The Toronto Radial Railway Company is applying for incorporation through its solicitors, Messrs. Mercer, Bradford and Titus, to acquire the personal property, rights and franchise of the Belt Line Railway Company, or any other company operating or having the right to operate an electric or other railway in Toronto, or within fifty miles thereof.

The Southern Printing and Lithographing Company, London, Ont., is being incorporated with a capital stock of \$20,000.

We are in receipt of the Oil Well Supply Company's illustrated catalogue of tools, machinery and supplies for boring, equipping and operating oil, salt, gas and water wells, and for prospecting for minerals. This handsome catalogue, besides illustrating and describing the various kinds of machinery, tools, etc., manufactured or for sale by the Oil Well Supply Company, gives a great deal

of useful information to users of machinery. The Oil Well Supply Company, Petroleum, Ont.

The Citizens Brewing and Distilling Company, Mousonneuve, Que., is being incorporated with a capital stock of \$300,000.

The Missisquoi Marsh Company, Sackville, N.B., is being incorporated with a capital stock of \$180,000, to purchase and drain marsh lands in Nova Scotia and New Brunswick.

The first horseless carriage built in Canada was given a trial a few days ago in the carriage works of Mr. John Dixon, Toronto. The carriage, a hansom model, weighs about 300 pounds, and the weight of the storage battery, motor, etc., by which it is propelled, bringing the total weight up to 700 pounds. The storage battery and motor were built by Mr. W. J. Still, and the carriage body by Mr. Dixon, and the three bicycle wheels, upon which the whole carriage is mounted, by the Griffiths' Cycle Corporation all of Toronto. It is expected the vehicle will make fifteen miles an hour on a smooth level road, and that the storage battery will supply energy for five hours. The carriage is the property of F. C. Featherstonhaugh, patent solicitor, Toronto.

Mr. J. Walshaw, manufacturer of blankets, woollen goods, etc., Bolton, Ont., whose factory was destroyed by fire in August last, informs us that he is re-building on a much larger scale, with the expectation that the tariff will not be interfered with.

The London Advertiser continues its list of new industries set going or about to be started in the Dominion. It says that a new pulp mill is to be built at Chicoutimi, Que.; that the Standard Shoe Company has increased its premises and will employ seventy-five operators. Heretofore infants' shoes only have been made, but the company will now make misses' shoes as well; and that Edward Now has started a manufactory of fire brick and fire clay in Hamilton, Ont.

The Altona Milling Company's roller flour mill at Altona, Man., recently completed, was destroyed by fire Dec. 7th. Loss about \$6,000.

Considerable new machinery has recently been put into the factory of the Wilson Carriage Works at Merriton, Ont., and foundations have been laid for ten additional furnaces. The Kiorion paper mills of that town have been using the gas for some time.

The pulp mill in process of erection at Windsor mills, Quebec, comprises two large buildings, each 172 by thirty-two feet, situated near the dam constructed last year.

They will have a capacity of sixteen tons of pulp a day, with 8,000-horse power as a motor, and when finished will give employment to between 150 and 200 men.

A. R. Munro, superintendent, and Hugh McLeod, forman, of Munro Bros.' Wire Works, New Glasgow, N.S., are now on a visit to the United States in the interests of this enterprising firm. They are purchasing improved machinery to better enable them to supply the increased demands for their woven wire fencing and wire cloth for all purposes. This firm have a reputation for always supplying the best goods in their line, and they have established a successful business, which grows larger every year.

The Canada Switch and Spring Co., Montreal, have put in a new plant for manufacturing steel castings upon a new and improved method.

The erection of two large pulp mills in the Lake St. John, Que., district is contemplated by the Glens Falls Pulp and Paper Company, of Glens Falls, N.Y. This company which derives a large part of its raw material from Canada, owns upwards of 1,000 square miles of timber limits on the St. Maurice River, Quebec.

We are informed by the Ogilvie Milling Company that their mill at Winnipeg has capacity to manufacture two thousand barrels of flour every twenty-four hours.

The manufacture of artificial marble from gypsum is to be started in Toronto by Mr. George W. Parker. The Waterous Engine Works Company, Brantford, will supply the machinery.

The buildings of the Pioneer Beet Root Sugar Company, Coaticook, Que., were destroyed by fire, Dec. 2nd.

A pulp mill with a capacity of 100 cords per day, is to be built at Webbwood, in Algoma, Ont.

Cowanville, Que., has adopted a by-law providing for a municipal system of water-works.

The machinery of the Sorel Paper Mills Company, Sorel, Que., has been bought by the Maple Card and Paper Mills Company, who have transferred it to their works at Portneuf, Que.

The makers of the Morris piano, Listowel, Ont., report that they worked full time all summer and are now working over time.

The W. R. Gardner Tool Company, formerly of Brockville, Ont., have completed the removal of their factory to Sherbrooke, Que. They have added new machinery so that the capacity of their works has been more than doubled.

Albert Bell, Dunnville, Ont., calls attention to his engines, either for yacht, launch or for stationary use, in a folder just received.

The excitement over the discovery of oil in the vicinity of Bothwell is increasing. Thirty rigs are boring for oil night and day, and many good wells have been struck.

The Kootenay Brewing, Malting and Distilling Company, Trail, B.C., is being incorporated with a capital stock of \$50,000.

A new rust preventative, known as man-n-um is being introduced into Canada by James W. Pyke, Montreal. It is described as a transparent compound, and, it is claimed, absolutely resists the influence of the atmosphere as well as saltwater the vapors of ammoniac or muriatic acid; never turns hard, but remains always slightly sticky; never leaves spots but preserves the bright-

ness of the metal, which has been covered with it, leaving it like now after the mannoctin has been removed, which can easily be done in a few minutes by means of a few drops of turpentine. The article was introduced in Europe in 1892, and later in the United States where it is already extensively used.

The Wm. Hamilton Manufacturing Company, Peterborough, Ont., with branch at Vancouver, B.C., have sent us two large illustrated catalogues: one describing the Corliss engines built by them, the other having reference to their stationary and portable boilers. This company have also commenced the manufacture of the well known Allis mining machinery, so that they are in a position to supply anything required in a mining outfit. Catalogues will be sent on application.

The F. W. Borden Company, lumbermen, millers, etc., Blomidon, N.S., are applying to the Nova Scotia Legislature to have its name changed to the R. W. Kinsman Company, and to increase its capital stock from \$50,000 to \$250,000.

The Boston Rubber Company, Montreal, has been incorporated with a capital stock of \$200,000.

The Thomas Manufacturing Company, Toronto, has been incorporated with a capital stock of \$500,000, to take over the business hitherto carried on at Toronto Junction by H. A. Lozier & Co., manufacturers of the well known Cleveland bicycles.

The Canadian Pacific Railway Company proposes to build a million bushel elevator at Owen Sound, Ont.

The Huron and Ontario Electric Railway, running from Kincardine and Goderich via

Walkerton to Eugenia, the junction town, thence north to Meaford and south to Port Perry, is to be begun at once. The New York contractor states it will be finished by January, 1898.

Mr. A. Campbell's saw mill at Callander, Ont., was destroyed by fire a few days ago. Loss about \$2,000.

Ross Brothers, Buckingham, Que., whose saw mills were burned last summer intend building new mills this winter to cost \$50,000.

The Facee Car Wheel Works at Perth, Ont., will soon be ready for operation. All the machinery being now in place except the boring and planing machines.

The Fort Erie and Bridgeburg Street Railway Company, Fort Erie, Ont., is being incorporated with a capital stock of \$50,000, to construct and operate a street railway in Fort Erie and Bridgeburg, Ont.

The London Box Mfg. and Lumber Co., London, Ont., The Ontario Water and Sewage Purification Co., Toronto, and The River Range Oil Co. Toronto, are being incorporated.

Mr. C. A. Goggin's saw mill at Pan-obsquis, Que., was destroyed by fire a few days ago. Loss about \$3,000.

The Polson Iron Works, Toronto, recently placed a sixty h.p. boiler in the Crawford House, Windsor, Ont.

The beet sugar factory plant at Farnham, Que., will soon be removed to Rome, N.Y., where arrangements have been made for the establishment of the first beet sugar factory in that state.

James Higginson, a farmer residing in East Flamboro, near Waterdown, Ont., has dis-

covered a deposit of bog ore on his premises. A sample was shown to the Hamilton Smelting Works Company's expert and found to be of first-class quality. The company offered Mr. Higginson \$3 a ton for all he can deliver.

The Drummondville Lumber Company's large saw mills at Forestdale, Que., were destroyed by fire a few days ago. The company intend to rebuild at once.

The Star Iron Company, Beauharnois, Que., who have closed a successful and busy year are making additions and improvements to their works, and putting on additional hands to overtake orders.

The Polson Iron Works, Toronto, have been awarded the contract for supplying eight boilers for the new City Hall, Toronto. They consist of three Heine safety water tube boilers of 150 h. p. each: one of same kind of 250 h. p. and four multitubular boilers making a total of about 1,000 h. p. This company also have the contract for all the tanks, steam and water connections required in the building.

The Danville, Que., Asbestos Co., have acquired control of the waterpower of the Nicolet river from the lake to the G.T.R. bridge near Danville, Que.

That London, Ont., is one of the leading cigar manufacturing centers in the Dominion is proved by the annual report of Sir Henri Joly, Minister of Inland Revenue, just issued. Last year fifteen cigar factories were in operation in this city. They worked up 344,242 pounds of raw leaf tobacco, from which they produced 20,327,380 cigars. The duty collected during the year, at \$5 per 1,000, and the license fees, amounted to \$76,269. Though Toronto reports sixteen

THE BEST BELTING DOES THE MOST WORK
IT RUNS THE STRAIGHTEST
STRETCHES THE LEAST, AND LASTS THE LONGEST

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TANNERS AND BELT MAKERS

ORDERS SENT TO OUR TORONTO OR MONTREAL FACTORY WILL HAVE PROMPT CARE

factories, only 4,941,895 cigars were produced in that city. Hamilton with fourteen factories, produced 3,944,210, and Guelph with twelve factories, produced a total of 4,244,925. The number of cigars produced in the Province of Ontario last year was 46,148,285, so that almost one-half of the total was manufactured in this city. Montreal alone produces more cigars than are manufactured in this city. As the total number manufactured in Canada is 105,550,560, this city really markets one-fifth of the whole.—London Advertiser.

The large flour mills at Galt, Ont., owned by Messrs. Cranston and Scrimger, have been sold to Messrs. Samuel J. and John Cherry.

The Polson Iron Works have recently placed a fifty h.p. boiler in the Page building, 202-208 Yonge St., Toronto.

The Keewatin Power Company is making preparations to transmit electrical power from its dam at Keewatin, Ont., to Winnipeg, Man., a distance of 130 miles.

Mr. Cyrus Bissell, Gloversville, N.Y., purposes starting a glove factory at Clarenceville, Que.

The Howell Lithographing Company, Hamilton, Ont., is being incorporated with a capital stock of \$49,000.

Mr. A. Dupont is starting a broom factory at Almonte, Ont.

Mr. J. W. Taylor, Ottawa, has contracted with parties in the United States, to furnish them a large quantity of feldspar, to be used in the manufacture of porcelainware.

Messrs. Rhodes, Currey & Co., Amherst, N.S., inform us that about sixty-five per cent. of their output is railway and street

cars, car wheels, castings and forgings, the balance being doors, sashes and house building material. We are informed that they are the only concern manufacturing cars in the Maritime Provinces.

The plant and effects of the Locked Wire Fence Company, of Ingersoll, Ont., is now being removed to London, Ont., where an extensive outlay is being made for the manufacture of metallic roofing and siding, internal finishings, nails, etc.

The Polson Iron Works has just delivered to the Massey-Harris Company a 100 h. p. brown automatic engine for use in their new bicycle factory.

Mr. Robert Lillie, of Perth, Ont., is seeking a suitable location in Sudbury, Ont., for building a foundry and machine shop.

It has been decided to start a pulp mill at Chicoutimi, Que., the shareholders being principally those of the Electric Company of that town, along with some outside capitalists. The mill is to be a large one.

J. H. Dunlop, Toronto, has just put in a new forty h. p. boiler built by the Polson Iron Works to heat his green houses.

The North Western Miller says that Messrs. Watson Bros., of Minneapolis had received a despatch from New York saying that the Lake of the Woods Milling Co., of Keewatin and Portage La Prairie, Manitoba, had engaged the entire room on the C.P.R. line of steamers from Vancouver for flour to go to Australia during the three months ending with April. This Company has also engaged space for 500 tons of flour on each of the steamers leaving Vancouver, B.C., for Hong Kong, for the three months ending with March next.

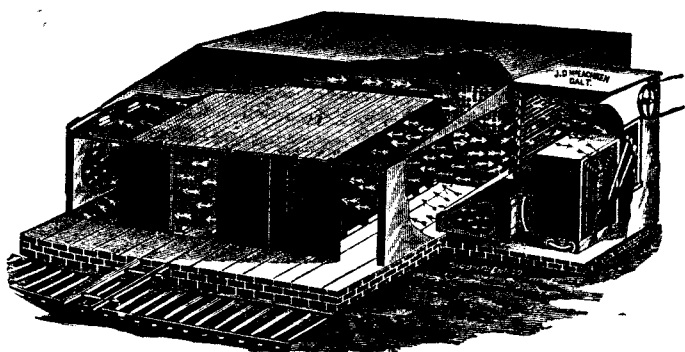
The Canadian Switch and Spring Company, of Montreal, has secured the contract for the interlocking system for the Toronto, Hamilton and Buffalo Railway Company.

The Northwestern Compo-Board Company, of Minneapolis, is starting a factory in Montreal for its specialty. Waste lumber and straw board are the chief raw materials of the industry.

A correspondent of the New York Evening Post in Alaska writes from Juneau: Alaska is in luck. With improved appliances gold is being discovered weekly, in new localities, all along the coast range of mountains, and on the interior rivers. The output for the current year was \$5,000,000, and next year a gold production of \$12,000,000 is promised. Last year's output was \$3,000,000. Over eleven thousand people were added to the population of Alaska in 1896. In the recently discovered Birch Creek district miners will not look at anything which does not pay an ounce of gold per diem. The Birch district is on disputed territory, and so rich are the mines that a special commissioner has been dispatched to Washington to urge upon Congress the imperative importance of establishing a joint commission to determine and confirm the boundary line between the province and British Columbia. There are some two hundred valuable gold mines in the doubtful belt, which will be confirmed to Canada permanently under their official survey, unless the United States can prove ownership to the contrary. As soon as ever this question is settled an international wagon road will be built from the coast to the mines, and freighting no longer a burden of hardship, inordinate expense and wear and tear.

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In construction a process of drying this Kiln differs widely from all others in use. They have given entire satisfaction where all others Dry Kilns have failed. They will season More Lumber in a Given Time, with a given heating surface and a given quantity of steam than any other Kiln now in the market. Their construction and mode of operating is such as to season lumber without Case Hardening, Checking or Warping. They work equally well on Lumber Right from the Saw and on Air Seasoned Lumber, the only difference being that one takes a little more time than the other. By a Peculiar Arrangement Found Only in Our Dry Kilns we extract the moisture from the heated air, return it through the heater again and thus preserve the heat passing from the Kiln instead of wasting it as is the rule with all other Blast Kilns.

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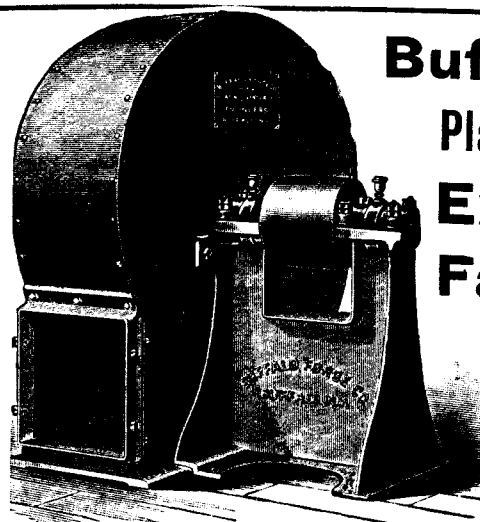
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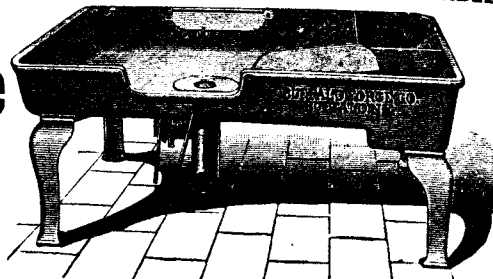
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New York Office, 26 Cortland Street.

MINING INDUSTRY IN ONTARIO.

The following mining companies are being incorporated in Ontario:—The Sovereign Gold Mining and Development Corporation, Toronto, capital stock, \$2,500,000; The Nee-pawa Gold Mining Company of Ontario, Rat Portage, capital stock, \$1,000,000; The Thessalon Gold Mining Company, Thessalon, capital stock, \$800,000; The Rupert Land Mining Company of Ontario, Rat Portage, capital stock, \$200,000; Ontario Prospector's Mining and Development Company, Rat Portage, capital stock, \$1,000,000; The Leap Year Consolidated Gold Mining Company of London, London, capital stock, \$1,000,000; The Wellington Silver Mining Company, Ottawa, capital stock, \$300,000; The Gold Fields Mining and Development Company of Ontario, Toronto, capital stock, \$2,500,000; The Plusus Gold Mining Company, Sault Ste. Marie, capital stock, \$750,000; The Western Ontario and Manitoba Gold Mining and Development Company, Rat Portage, capital stock, \$750,000; The Ambrose Mining and Development Company, Toronto, capital stock, \$1,000,000; The Bancockburn Gold Mining Company of Toronto, Toronto, capital stock, \$500,000; The Mississauga River Gold Mining Company of Ontario, Thessalon, capital stock, \$400,000; The Lady of the Lake Gold Mining Company of Ottawa, Ottawa, capital stock, \$500,000; The Toronto Tudor Gold Mining Company, Toronto, capital stock, \$1,000,000.

The following mining companies have been incorporated in Ontario:—The Empress Gold Mines Company of Ontario, Fort William, capital stock, \$1,000,000; The Foley Mines Company of Ontario, Rainy River, capital stock, \$1,000,000; The Beatty Gold Dredging and Mining Company, Niagara Falls, capital stock, \$50,000; The Victoria Mining Company of Ontario, Toronto, capital stock, \$450,000; The Coleleugh Gold Mining Company, Rat Portage, capital stock, \$1,000,000; The Great Northern Mining Exploration and Development Corporation of Ontario, Toronto, capital stock, \$475,000; The Lake Harold Gold Mines Company, capital stock, \$1,000,000; The Great Northern Mining, Exploration

and Development Corporation, Toronto, propose to establish reduction works at Sault Ste. Marie, Ont., to be used in reducing their own ores, and also a custom mill that works by electricity.

W. W. Roach, manager of the Government diamond drill, has sent about 100 pounds of the corundum recently found in Carlow Township, Hastings county, to the Hart Emery Co., of Hamilton for experimental purposes. A similar quantity has been received at the Bureau of Mines. Mr. Roach is now in Haliburton prospecting for iron ore. It is probable that iron deposits on Government lands in that region will be explored with the drill shortly.

MINING INDUSTRY IN BRITISH COLUMBIA.

The following companies are being incorporated in British Columbia:—Trail-Bear Gold Mining Company, capital stock, \$1,000,000; The Albion Gold Mining Company, Vancouver, capital stock, \$500,000; The Slocan Development Company, Rossland, capital stock, \$1,000,000; The Ithex Mining Company, Rossland, capital stock, \$1,000,000; Fire Mountain Gold Mining Company, Vancouver, capital stock, \$1,000,000; Yale Homestake Gold and Silver Mining Company, Vancouver, capital stock, \$400,000; Big Buck Gold Mining Company, Rossland, capital stock, \$1,000,000; The Cameronian Gold and Silver Mining Company, Sandou, capital stock, \$850,000; The Burrard Mining Association, Vancouver, capital stock, \$50,000; Sault Ste. Marie Gold Mining Company, Rossland, capital stock, \$1,000,000; Germania Gold Mining Company, Rossland, capital stock, \$1,000,000; Noon-day Mining Company, Rossland, capital stock, \$1,000,000; The Hamilton and Rossland Gold Mining Company, Rossland, capital stock, \$1,000,000; Blackwater Gold Mining Company, Vancouver, capital stock, \$500,000; Sophia Mountain Gold Mining Company, capital stock, \$1,000,000; Silver Star Mining Company, Vernon, capital stock, \$100,000; Bon Diable Mining Company, Vernon, capital stock, \$75,000; Abe Lincoln Gold Mining Company, Rossland,

capital stock, \$1,000,000; The Ronlette Mining and Milling Company, New Denver, capital stock, \$1,000,000; The Zilor Gold Mining Company, Rossland, capital stock, \$1,000,000; Cumberland Gold Mining Company, Rossland, capital stock, \$2,000,000; Ottawa Gold Mining Company, Rossland, capital stock, \$250,000; Golden Drip Mining and Milling Company, Rossland, capital stock, \$500,000; Oro Plata Mining Company, Rossland, capital stock, \$1,500,000; Nestegg and Firefly Gold Mining Company, Victoria.

The following foreign mining companies have been registered in British Columbia: The Carboe Mining, Milling and Smelting Company, Spokane, Washington, capital stock, \$800,000; I. X. L. Gold Mining and Milling Company, Spokane, Washington, capital stock, \$1,000,000; White Bear Gold Mining and Milling Company, Spokane, Washington, capital stock, \$2,000,000; The

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MINING MACHINERY

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Tribly Mining Corporation, Buffalo, N.Y., or Toronto, Ont., capital stock, \$75, Keough Gold and Copper Mining Company, Salt Lake City, Utah.

ROSSLAND'S DEMAND FOR MACHINERY.

It is almost impossible to keep pace with the orders for machinery in the Rossland camp. We now have a capacity for 160 rock drills within a radius of three miles of Rossland. These drills are operated by compressed air. One year ago there but two drills in the whole camp. The Le Roi had a seven-drill compressor in operation and the War Eagle had a temporary three-drill plant.

We have grown from ten drills to 160 drills in a single year. We are now using more rock drills than the entire Cour d'Aleno district of Idaho. Orders are already placed for half a dozen new compressor plants to be delivered within the next three months. In less time than that we shall have 200 drills in operation.

The Le Roi Kootenay and Columbia and War Eagle compressors are the largest ever built for any mining camp in Canada. The Le Roi's new plant is forty drills capacity, and it already has a seven-drill plant in operation. The Columbia and Kootenay plant has 30 drills capacity, the War Eagle plant 20,

Centre Star 7, Monte Cristo 7, Crown Point 7, R. E. Lee 7, Homestake 7, Josie 5, Commander 5, City of Spokane 5, O. K. 5, Nest Egg 4, White Bear 3, and Cliff 3.

Negotiations are now pending for the largest and most complete diamond drill plant ever erected on the continent. These negotiations have gone so far that specifications have been prepared and bids asked for the equipment. In enumerating machinery plants we have made no mention of steam hoists or pumps, several of which are now in operation, while orders are in for many more. We do not offer any predictions for the next twelve months, but it is safe to say that in the amount of machinery used Kootenay will soon rank with the Rand of South Africa. Rossland Miner.

NOVA SCOTIA COAL.

The coal trade up the St. Lawrence is over for this year. There has been a larger shipment this year than in the previous years. Montreal, Sorel, Quebec and Three Rivers were the receiving points for coal, and the General Mining Association, the Dominion Coal Company, the Cape Breton or Burchell Company, and Pictou were the points from which the coal was sent. In 1895 the General Mining Association shipped to the four St. Lawrence ports just

mentioned 115,432 tons, and during the past season 119,035 tons; the Dominion Coal Company 454,513 tons in 1895, and 547,773 tons in 1896; the Cape Breton or Burchell Mine 6,080 tons this year, but none in 1895; while from Pictou 66,571 tons were shipped in 1895, and 30,569 in 1896. This shows a grand total of Cape Breton and Pictou coal to the St. Lawrence during the past season of 706,457 tons, or an increase over the figures of 1895 of 69,918 tons. Pursuing the comparison a little further 598,733 tons arrived in Montreal, during the present year, against 554,925 tons in 1895, or an increase for 1896 of 43,808 tons. The increase at Quebec was also very considerable. This splendid branch of inter-provincial Canadian trade has grown from 120,000 tons in 1874 to nearly three-quarters of a million tons in 1896, as a result of the protection given this industry. While our own coal trade shows a

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Manufacturers of . . .
WHEELS. Wheel Materials. Shafts. etc.

constant development, the imports to the St. Lawrence by water of Scotch, English, Welsh and American coal reached 98,429 tons in 1895, and 86,367 tons in 1896, and in this coal there was a falling off in Montreal from 1895 to 1896 of 12,343 tons, yet, on account of the heavy importation for the Allan mail boats at Quebec, there was an increase at that port of 10,281 tons.

THE COAL OF THE CROW'S NEST PASS.

The coal-fields in the East Kootenay district, in what is known as the Crow's Nest Pass, lie in a south-easterly direction from Fort Steele, the distance to the nearest available coal being about sixty miles. These coal-fields in the near future will have a world-wide reputation, both on account of the quality and quantity to be extracted, and are without doubt the best coal fields in America undeveloped. The western outcrop of the field is on the side of a mountain in the valley of Elk River, "one of the largest tributaries of the Kootenay River." On the eastern side the coal seams have been traced a distance of forty miles, with surface cross-cuts made at intervals, showing the seams and walls. The lowest known seam is some 1,500 feet above the drainage level of the valley, and is thirty feet in thickness. One hundred feet higher there is another seam thirty feet thick, then comes a seam fifteen feet thick; then a small three-foot one; then a seven-foot one; then another thirty-foot seam; and above these are five more workable seams from four to ten feet in thickness—eleven seams in all, making a total of 148 feet in thickness of coal exposed.

There are three large creeks cutting this coal-field, and the seams are exposed on the banks of these creeks, and openings can be made to mine the coal without much preliminary expense. The cuts made by the creeks are more valuable than so many tunnels to prospect the coal, because there is room to operate the mines on both sides of the creek, and the mines are proved to be permanent without any cost—in fact,

Nature did the prospecting. In addition to the coal on Elk River, further east on Martin's Creek, and other tributaries on Mitchell Creek, which is the fork of Elk River, there is another large body of coal above the Elk River field, but of smaller area, a great amount of the field having been carried away by natural causes through the different ages since the coal was formed. The aggregate of the depth of the seams of coal in the upper basin is somewhat more than on Elk River; so that, if a shaft be sunk through the whole field, there would be found 200 feet of coal in the workable seams.

It would be hard to find another field of coal with as much coal to the acre and so easy and cheap to work. The eastern outcrop of this field is near the summit of the Rocky Mountains, the average distance from the western crop being ten miles, showing a coal field forty miles north and south by ten miles east and west, and an area exceeding 250,000 acres.

The coals in this field differ, owing, no doubt, to the different ages of the coal, there being three different qualities. The lowest seams are anthracite in their nature, while the upper seams are the bituminous coals. In between, both above and below the bituminous coals, are a number of seams of coal different from anything heretofore known. It is somewhat similar to cannel coal, but superior to any cannel coal known.

These coals have been analyzed and treated by different parties, among them being Professor Hofman, Government assayer at Ottawa for the Geological Department; and the results as shown in the department reports, prove that these coals would lose nothing by comparing them with the best coals of the same variety in Pennsylvania.—Fort Steele Prospector.

A large deposit of coal has been discovered at Codroy on the west coast of Newfoundland.

The Capital Cash Register Company Ottawa, has been incorporated with a capital stock of \$15,000.

Taylor Bros' saw and shingle mill at Udora, Ont., was burned a few days ago. Loss over \$1,200.

Two of the buildings belonging to James McNally's cooperage works at Aylmer, Ont., have been destroyed by fire. Loss about \$2,500.

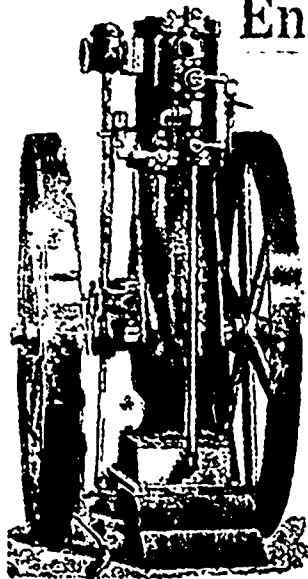
Messrs. Beauchemin & Sons' agricultural implement factory at Sorel, Que., was damaged by fire Dec. 12th, to the extent of \$10,000.

It is the intention of Messrs. Hamlin & Ayers, who are building a new dam across the North River at Lachute, Que., for the purpose of storing water power to let, to build a large pulp mill right at the dam.

The Hanover Felt Boot Co., has sold its plant and business in Hanover, to Mr. George Rumpel, of the Berlin Felt Boot Co., who will remove the machinery to Berlin, Ont., and add it to his present establishment.

By a recent decision of the United States Circuit Court at Cincinnati, O., the Dodge and Philion patent for separable wood pulleys, covering the compression fastening and interchangeable bushing system, is broadly sustained. Under this decision the user, the seller and the manufacturer of other than Dodge pulleys are all held to be infringers and liable as such to the owners of the patent. We are informed that the Dodge Wood Split Pulley Company, of Toronto, are taking proceedings against infringers of their patent in Canada.

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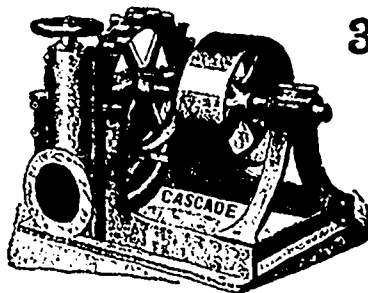
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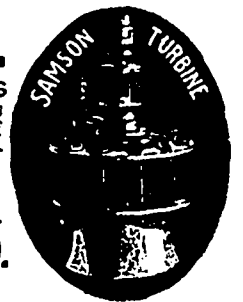


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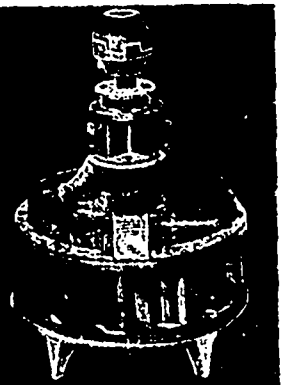
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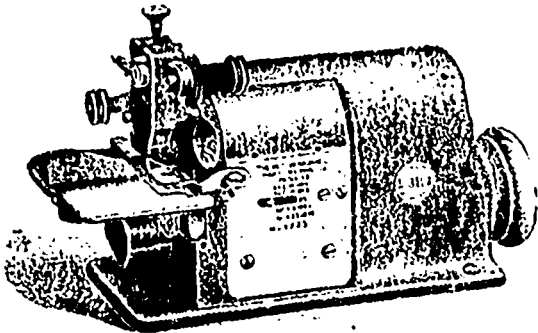
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of machinery and have made wonderful developments only attained by concentrated hard work. They claim to be the only concern in the world who make and sell crochet and overseaming machinery exclusively.

Their various machines cover a great variety of work and new fields are daily being opened. They make special machines for finishing the raw edges of bed blankets, matsoilles quilts, comfortable, underwear, and in fact they claim that any edges of fabric can be finished cheaper and better by their system than in any other manner.

The rapidity of their latest improved machines is really something marvelous. Their latest production is their number thirty-eight machine which is shown in the accompanying illustration and produces their self-locking stitch. This machine is used for covering the raw edges of knit underwear and other articles where an elastic edge is desired, and is a high speed machine.

The Merrow Machine Company solicits correspondence with all interested manufacturers and would like to send samples and catalogue fully describing their machines and methods.

Secretary Cassidy of the Canadian Manufacturers' Association, is in receipt of a letter from Messrs. Moffat, Hutchins Company of Cape Town, South Africa, in which the writer states that there is a good opening for Canadian manufacturers to extend their trade with that country. Several consignments of Canadian-made goods have been received at Cape Town, and entered into keen competition with similar goods from the United States and other countries. A bureau for the representation of Canadian manufacturers and products exclusively has been opened at Cape Town, and will give every facility to the Canadian exporter. The writer goes on to explain that the Canadian railway companies are now issuing through bills of lading to South Africa by two direct lines of steamships from New York, and the through freight can be paid by the consigner in Canada, thereby saving to the consignee five per cent. of the charges, so that business can be done as readily and cheaply with Canada as with the United States, whose trade with South Africa has been rapidly increasing during the past few years. Two steamers per month leave New York for South African ports regularly, and three are sometimes necessary to cope with the trade, besides certain sailing vessels for certain classes of cargo. Freights, it appears, are lower from New York than from England to Cape Town.

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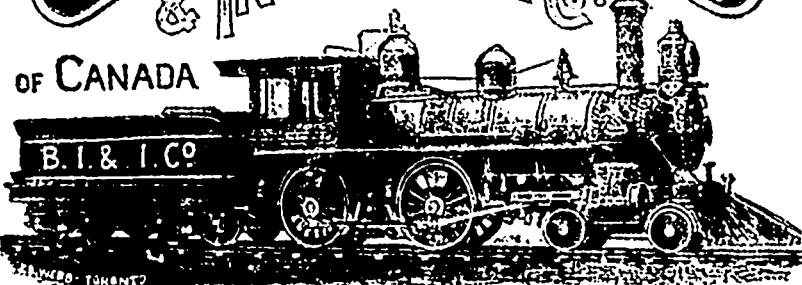
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CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from October 1st to October 13th, 1896.

Information regarding any of these patents may be had on application as follows:

Fetherstonhaugh & Co., Bank of Commerce Building, Toronto.

Ridout & Maybee, 103 Bay Street, Toronto.

C. H. Riches, Canada Life Building, Toronto.

A. Harvey, Central Chambers, Ottawa.

Copies of any American patents can be procured from either of these attorneys for the sum of twenty-five cents each.

- 53,613 Harness, H. E. Dotzer, Fraser, Mich.
- 53,614 Check-rein hook, J. R. Gump, Milan, Mich.
- 53,615 Garter, B. Dreyfus, New York.

- 53,616 Driving mechanism for bicycles, F. J. A. Kindermann, Melbourne, Australia.
- 53,617 Mixture for treating vegetable fibre, C. Efron and V. P. Travers New York.
- 53,618 Mowing machine, S. B. Jonsson and Rev. M. J. Skaptason, Winnipeg.
- 53,619 Garbage crematory, The Buffalo Steel House Co., Buffalo, N. Y.
- 53,620 Ore concentrator, M. Stoddard and C. H. Scott, Farmington, Iowa.
- 53,621 Refrigerator car, J. Thomas and J. M. Truby, Starke, Florida.
- 53,622 Refrigerator crate, J. Thomas and J. M. Truby, Starke, Florida.
- 53,623 Seed planter, H. A. Bacon, Pontiac, Mich.
- 53,624 Washboard attachment, S. Stephen son, Hampton, N. B.
- 53,625 Pipe joint, J. A. Nelson, Nebraska, City, Nebraska.
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- 53,627 Vehicle wheel, C. L. Schwarz, Philadelphia, Pa.
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- 53,629 Steam pump, A. C. Hall, Boston, Mass.
- 53,630 Gate, J. A. Freese, Danville, Ill.
- 53,631 Grater, J. S. Sobey, Calumet, Mich.
- 53,632 Reaping machine, B. F. Rich, Spanish Fort, Texas.
- 53,633 Axle set indicator, B. Dickie, Shubeneadie, N. S.
- 53,634 Bicycle, tricycle, etc., B. E. Worton, Hampton, England.
- 53,635 Bicycle tire, J. C. Lighthouse Rochester, N. Y.
- 53,636 Indoor shooting stand, O. C. Krause, Zwickan, Germany.
- 53,637 Skato, J. Stutz-Muller, Kempton, Zurich, Switzerland.
- 53,638 Method of connecting railway rails, etc., T. A. Bayliss, Birmingham, England.

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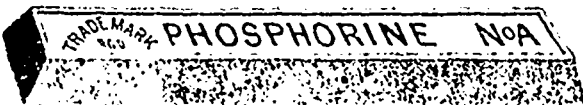
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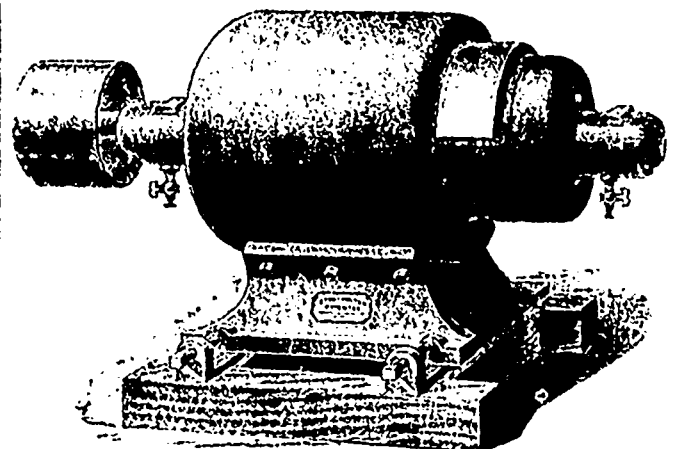
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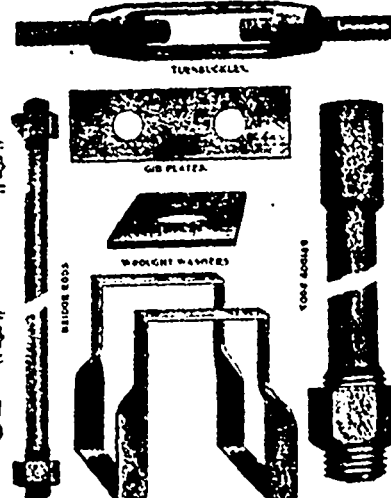
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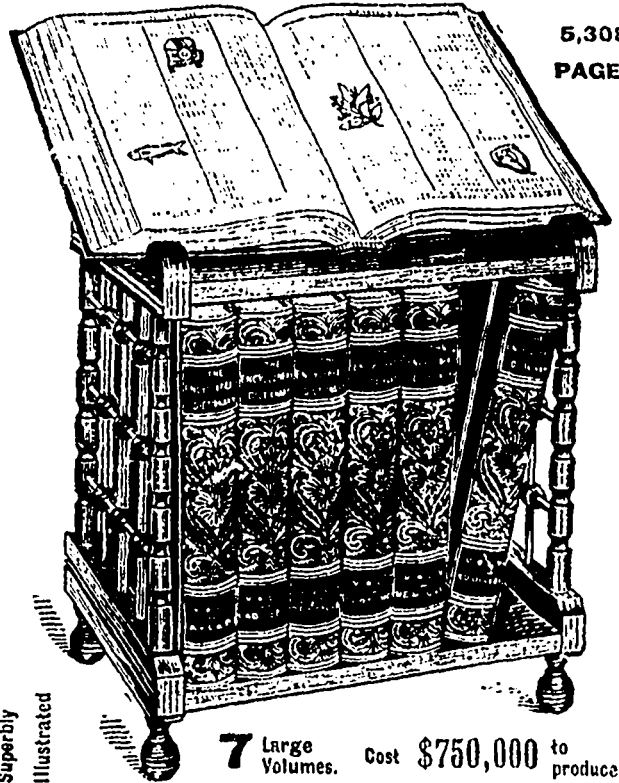
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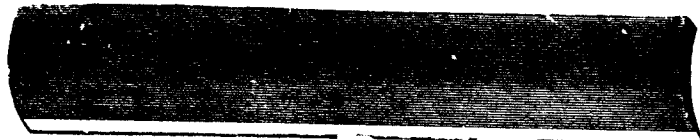
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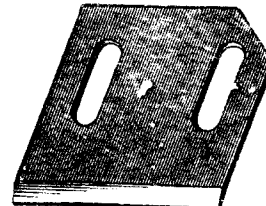


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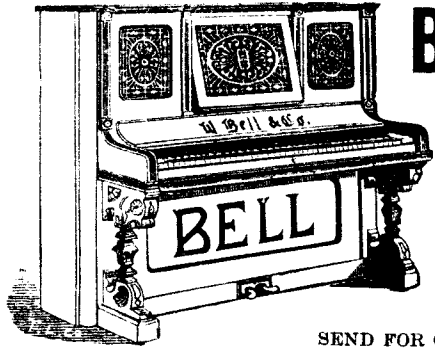
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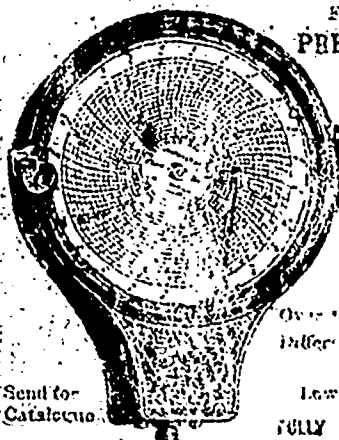
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