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THE CANADIAN MANUFACTURER

DEVOTED TO
THE
MANUFACTURING & MINING INDUSTRIES,
OF THE
DOMINION.

AND INDUSTRIAL WORLD.

Vol. 8.

TORONTO, JUNE 3, 1887.

No. 11.

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&
SCLATER,

MONTREAL.

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ASBESTOS GOODS,
OF ALL KINDS.

Files and Rasps, finest quality;
Fire Hose, cotton rubber-lined, for
Fire Brigades; Linen Hose, plain
and rubber-lined, for Mills, Fac-
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Hand Fire Engines.

Stitched Cotton Belting.

Railway, Mill, and Engineers' Supplies.

"Old Dyewood Warehouse"

Established 1838.

Theo. H. Eaton & Son,

Windsor, Ont. : Detroit, Mich.

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ANILINE COLORS,

DYE WOODS.

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FOR THE "CROWN ANILINE DYES."

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Vulcanized India Rubber Goods for mechanical
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Rubber Belting from 1 to 72 inches wide.

Hose, for conducting, suction and steam.

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TO MANUFACTURERS!

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We always open to buy and pay spot cash for
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COTTON GOODS—Grey and White Cottons, Grain
Bags, Wraps, Yarns, Checked Shirtings, Glenghans,
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We also keep in stock MANUFACTURERS' TRIMMINGS,
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Special Drives in above lines now in stock at interest-
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Reserve - \$500,000

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A general Banking Business transacted.

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SEE ADVERTISEMENT, PAGE 370.

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PURE OLIVE OIL.
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and a full assortment of other
LUBRICATING OILS.

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**CHEMICALS,
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Manufacturers of
**ANILINE DYES,
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Prize Medal, London Universal Exhibition, 1862.

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Grand Diploma of Honor, Vienna Universal Exhibition, 1873.

Medal and Diploma, with Highest Commendations, Philadelphia Centennial Exhibition, 1876.

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MANUFACTURERS OF
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ASK SEND FOR PRICES AND CIRCULARS.

**New York Dyewood, Extract
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All kinds of

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Dye Woods, Extracts, Cutch,
Indigo, Gambler, Cudbear, Coch-
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Extracts of Dyewoods.

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CHEMICALS AND DYE STUFFS.

Sal Soda, Soda Ash, Bleaching Powder,
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of Potash, etc., etc.

Extracts Indigo, Sumac, Fustic, etc.,
Gambler, Cutch, Sunac, etc., Acids,

ANILINE DYES.

Brooks, Simpson & Spiller's, Full Assort-
ment on hand.

PHOSPHOR BRONZE. SILICATE CLOTH.

PILLOW, HERSEY & CO.,

Manufacturers of every description of
Cut Nails, Tacks, Brads, Railway and
Pressed Spikes, Horse Shoes, Carriage, Tire
and other Belts, Coach Screws, Hot Pressed
and Forged Nuts, Felloe Plates, Lining and
Saddle Nails, Tufting Buttons, &c., &c.

The Hardware Trade, Shoe and Leather
Finding Dealers, and Boot and Shoe Manu-
facturers, will find the Largest and Best
Assortment and Greatest Variety of above
Goods always in stock, and can rely on orders
being rapidly executed, our facilities for
doing so being unequalled.
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Card Clothing Works,
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**W. R. GRAY & SONS,
PROPRIETORS,**

MANUFACTURE EVERY DESCRIPTION OF

Card Clothing and
Woollen Mill Supplies.

**Largest Manufacturers of STEEL
and BRASS STAMPS in Canada.**

**PRITCHARD
& ANDREWS**

OTTAWA, ONTARIO.

**Rubber Stamps,
Stencils, Seals, &c.**
SEND FOR PRICES.

**DOMINION
DYEWOOD & CHEMICAL CO.**

SOLE MANUFACTURERS OF

The Celebrated Yorkshire Scouring and
Fulling Soaps
Neutral Cotton Seed Oil Soaps,
Pure Lard Oils especially adapted for the
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IMPORTERS OF

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ANILINE DYES, ALL COLORS.

SPECIALTIES ARE .

Imperial Blue, Fast Seal Brown,
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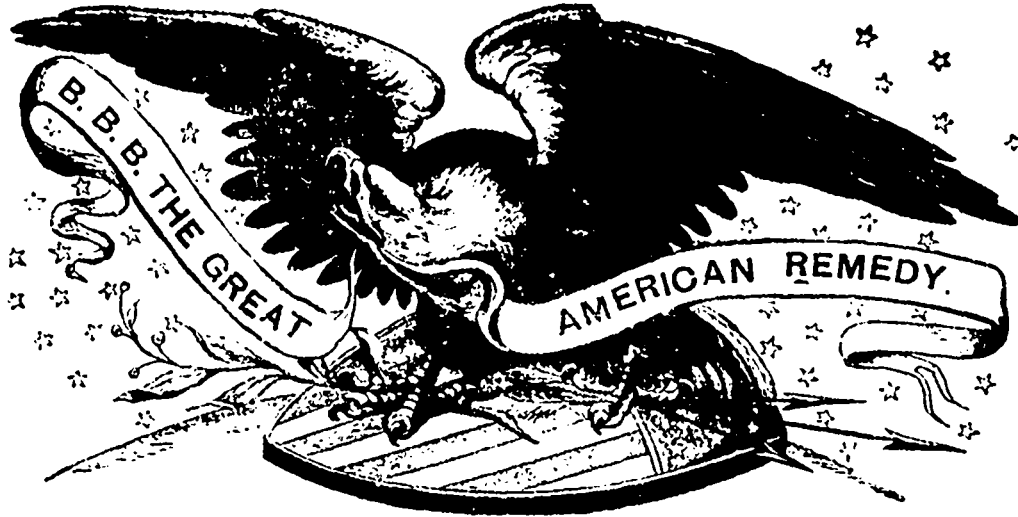
THE CANADIAN MANUFACTURER

DEVOTED TO *
 THE MANUFACTURING & MINING INDUSTRIES,
 OF THE DOMINION. * AND INDUSTRIAL WORLD.

Vol. VI.

TORONTO, ONT., JUNE 3, 1887.

No. 11.



B. B. B.

BENJAMIN BUTTERWORTH'S BILL.

THE GREAT ANNEXATION SOPORIFIC

AND

PANACEA FOR ALL INTERNATIONAL DISAGREEMENTS.

This Great American Remedy is Warranted to Eradicate

CANADIAN NATIONALITY, CANADIAN INDUSTRIES, CANADIAN COMMERCE.

N.B.—Should the results of the prescribed dose be not quickly apparent, it should be followed by one of the celebrated *New York Sun* "Political Union Pills."

TESTIMONIALS.

I recommend it to the "homeless and helpless" farmers.—*E.....s W.....*

Its benefits are "unrestricted"

—*P...f. G.....n S...h.*

No Board of Trade should be without it.

—*H...y W. D.....g.*

DIRECTIONS.

"Before taken to be well shaken."

COST TO CANADIANS:

Small Dose. . . . Humiliation.

Large Dose, Degradation.

TO CANADIAN MANUFACTURERS.

The feeling regarding commercial union between Canada and the United States is rapidly deepening and widening. Those who favor the surrender of Canadian individuality, and propose allowing the United States to make our tariff laws and regulate our financial resources, are active in their efforts to create public sentiment in their favor.

The Canadian Manufacturers' Association are taking a consensus of views of Canadian manufacturers on this subject, the object being to discover the sentiment existing among them on this most important matter. To obtain this a circular was sent out to them with an enclosed postal card on which the recipient was requested to state whether he was in favor of, or against commercial union, the replies being very general. It is possible that through inadvertence some manufacturers may have failed to receive the circular alluded to, and if any such there be, they are requested to immediately indicate their preference in the matter by simply writing on a postal card, "Against Commercial Union," or, "In favor of Commercial Union," as the case may be, giving their names and address, and mailing the same to Mr. Frederic Nicholls, Secretary of the Canadian Manufacturers' Association, Toronto.

The matter is an important one, and demands prompt attention.

DARE TO DO RIGHT!

The Toronto *Globe* seems to fairly delight in being again and again convicted of palpable dishonesty. It loves to wallow, and it accordingly does wallow, in the mire of untruthful expression and deceitful suppression. The other day the Governor General made a speech in response to a toast at a dinner tendered him by the National Club in this city, and the *Globe*, whilst professing to give a verbatim report, deliberately expunged a portion that did not exactly chime in with the views of the managers of that paper. As the other city dailies published a report of the speech in its entirety, the clumsy exhibition of partizanship was at once detected.

Again, on Saturday, May 28th, in order to promote its pet project of "Commercial Union," it stooped to a mendacious misrepresentation of the Manufacturers' Association. We give the facts. Knowing that our readers are as much interested as any other class in the question of "Commercial Union," we have spared neither time nor trouble in our search for information, and we have devoted a great deal of space to the publication of letters from representative manufacturers on this question and to editorial deductions.

After the decisive vote against this thinly veiled scheme for annexation, which was recorded at a recent meeting of the Toronto Board of Trade, it was still claimed by some that the mercantile classes were disposed to favor the project, and in order to test the correctness of this assumption we issued a circular requesting an expression of opinion from the members of the Board. This information, in the large majority of in-

stances, has been freely and frankly communicated to us, and it is almost unnecessary to state that the general consensus of opinion is decidedly against a proposition so manifestly detrimental to the interests of our young but progressive Dominion.

Our enterprise in seeking reliable data on which to base our arguments instead of being content with mere imaginary conclusions, has hurt the tender susceptibilities of the *Globe*, which, in the hope of bolstering up a weak cause, ignores the fact that the circular was printed under the heading of this paper and signed by the editor, and with malice aforethought devoted half a column to an editorial screech against the Manufacturers' Association, and in addition makes the following serious charge of venality on the part of the commercial community. It says. —

"What Mr. Nicholls is striving for is a written record of names and opinions to be preserved for reference in time to come. Then if the manufacturers should want to exercise pressure on those members of the Board who can be influenced in that way, the information on which to proceed will be ready at hand."

No doubt the members of the Toronto Board of Trade will fully appreciate the gratuitous insult conveyed in the following sentence: "Then if the manufacturers should want to exercise pressure on those members of the Board who can be influenced in that way." Surely it must be a warped and perfidious mind that assumes that members of two of our largest and most representative industrial and commercial organizations are in the market, the one to buy and the other to sell their convictions. Surely the writer must breathe a vitiated moral atmosphere or otherwise he would have hesitated to publish such a stigma upon the fair fame of our merchants and manufacturers. We venture the opinion that the *Globe*, in the discussion of this question, will find that "honesty is the best policy," and that while arguments on either side are acceptable reading, misrepresentation and abuse are not factors in moulding public sentiment. In the meantime we shall continue to oppose by every legitimate means the disintegration of our young and progressive Dominion, despite the attacks which are being directed against us from several sources, for we recognize that the growing prosperity of Canada has aroused the envy of those who wish to secure our trade without having contributed a cent towards its development. Shall we say them yea or nay?

"A BIRD IN THE HAND," ETC.

Mr. WILSON and his lesser satellites have indulged in a great many glittering generalities as to the great boon that would result to Canadians were the tariff barriers between this country and the United States removed, but we have failed, after diligent perusal of all their speeches and letters, to find any specific declaration of any plan whereby their scheme could be carried into effect with advantage to Canada, or in what direction we should benefit, as a people, by the adoption of a policy of unrestricted reciprocity.

They glibly ring the changes on the advantages that would accrue to the farming community from an open market of sixty millions, but they do not say that the home market is the market that absorbs an enormous proportion of all our agricultural products, and that for the small percentage of surplus the mar-

ket of sixty millions is a myth. They do not speak of the immense surplus of farm products already produced in the United States, neither do they tell their farmer friends that in 1880 the United States exported grain, breadstuffs and provisions to the enormous amount of \$115,000,000. But although they have entirely failed to prove that commercial union would benefit this country, they have given ample evidence that it would be of great benefit to the United States, and to prove this it is only necessary to quote a few extracts from Mr. Wiman's speeches and letters, as reported in the press.

Our readers can draw their own conclusions from the following paragraphs, and then judge of the disinterestedness of Mr. Wiman's motives.

* * * "It can be forcibly replied that the vast mass of thinking men in the United States feel that an abolition of all trade restrictions on this continent is most desirable."

* * * "The possibilities of the extension of the trade of the United States into the unknown regions of the North; the advantages that would result from the free introduction of the great agricultural, mineral and other resources of the Dominion, together with the prospect of settling, one for all, the various international difficulties that continually arise [i. e., surrender of our fisheries. - E. C. M.]; these considerations help forward a favorable conclusion."

* * * "The attractions to the United States of this large and comprehensive policy made it possible. The settlement of the paltry fishing question would hardly be an impelling power that would make possible the passage of such a measure. It would be the pursuit of an idea that the commerce of the country should cover the continent as the waters cover the face of the deep."

* * * "But motives beyond these, in the extension of business, in the building up of a great trade to and from Canada, in making her vast natural resources contributory to the progress and growth of the United States, would be far more moving."

* * * "The position of the people of the United States is one of great strength. They fully realize their enormous advantages, now apparent to a greater degree than ever before. That they could be persuaded into any half measure is utterly out of reason to expect. Their manufactures are fully developed; their natural resources ample; their Governmental surplus vast, and their whole condition keyed up on such a level that to expect them to yield in the matter of limited reciprocity is to expect an utter impossibility."

* * * "It sweeps out of sight all custom houses, and will open up a market of five millions of people to the United States without undertaking any financial obligations, and without adding a dollar to taxation."

* * * "The reverse side of the picture is, that by delay or a want of appreciation of the peculiar conditions which at this moment prevail, Canada may be cut off from a connection with that country, and indeed it might result in being plunged into war with the most determined and the most vigorous nation on the continent."

The above extracts should be sufficient to convince any unprejudiced mind that our neighbors are trying to befool us into a game of "heads, I win; tails, you lose," and that apart from sentiment, the commercial aspect of the transaction is altogether too shady. Are we willing without, as Mr. Wiman says, the other parties to one transaction undertaking any financial obligations, to allow our vast natural resources to be made contributory to the progress and growth of the United States? We think not, and we tell Mr. Wiman that we are not so pusillanimous a people as to be frightened by his threat that the reverse side of the picture is that by delay we may be "plunged into war with the most determined and the most vigorous nation on the continent."

ALLEGED CUSTOMS DISCRIMINATION.

RECENTLY the *American Stationer*, published in New York, contained a letter signed "Importers" purporting to have been written from Toronto by some person in the stationery business in this city, which, after charging the Canadian Government with being the cause of an alleged decreasing trade in his line of merchandise from the United States to Canada, speaking of the situation says:—

"A marked and most unpleasant feature in all of these changes in our fiscal policy has been the distinctly unfriendly attitude adopted by our government towards the United States. Our customs people here evidently have instructions from Ottawa to assume that all American exporters are dishonest, and as a consequence the Canadian importer is subjected to untold insult and annoyance when passing an American invoice. But if it be an English or even continental invoice that falls under official scrutiny, the wheels of routine appear to be specially oiled for the occasion. The contrast is significant. While we feel this to be most unjust, we cannot prevent it from discouraging any wish we may have to do business with your people."

The writer, as an evidence of the truth of his statement, says that "no invoice of lead pencils coming from the United States is accepted for duty at its face value, although stamped 'certified correct' by the firm exporting the goods," and that the amount of the invoice is raised to an arbitrary and fictitious value, fixed at will by the customs officials, and the duty assessed on what has practically been converted into a false invoice. He also says that precisely the same thing is true of all the leading American makes of steel pens and writing inks; and that the invoices of such goods are useless for customs purposes when coming from the United States. "Our customs officials," he says, "deliberately falsify them."

This scurrilous and untruthful tirade against Canadian officials of both high and low degree is commented upon by the *Stationer* in characteristic Yankee bluster, in which it professes to "sympathise with Canadians in their efforts to establish their own industries, and recognizes the propriety of a tariff which shall protect the growth and development of those industries," but protests on the facts presented, against giving advantages to the manufactures of other countries to the exclusion of those of the United States; assumes that the whole course of the present administration of public affairs in Canada towards the United States is and has been inspired by dislike which it is thought can be safely vented under the protection of the British Government; intimates that such doings will cause the United States Government to resort to "non-intercourse" with this country, and intimates annexation, its language being "our system of territorial government is well defined, and it is a very simple matter to apply it to the other side of our northern boundary line."

Another New York paper, the *Paper Trade Journal*, also elaborates the subject, though not in such an acrid manner, care being taken to qualify its remarks with an "if." It says, "this is a grave charge, but it comes from a responsible house, and if true," etc.

The Toronto correspondent who signs himself "Importers" does not make his name known for reasons easily surmised. He fights behind a mask, and he is probably some Yankee free trade sympathizer who cares more for the "almighty dollar"

than for Canada, or—the truth. These complaints that American exporters to Canada are not treated in the same manner as other foreigners, is not true. The only case to which the papers alluded to refer is that regarding pencils. The truth is, the manufacturers of the United States were selling pencils to Canadian firms at much lower prices than to American dealers—so much so that in one case of which we have knowledge the Canadian purchaser disposed of his whole purchase of Yankee pencils in the United States at a good profit, never having brought the pencils to Canada at all. This being discovered by the parties from whom he purchased they now refuse to sell to Canadian houses at slaughter rates except on guarantee that the goods are actually to be brought to Canada. This is the whole case in a nut-shell.

Toronto "importers" know whether they have ever been in the habit of buying Yankee pencils at slaughter prices, guaranteeing that the goods were not to be sold in the United States, having them invoiced far below their general market value, and endeavoring to have them accepted at such valuation by Canadian customs officers. Such transactions are constantly occurring, and this palpable fraud on the Government and undervaluation—has become so bold-faced and flagrant that the authorities find it necessary to suppress it. The suppression however, causes much grief to those heretofore engaged in it.

RECIPROCITY.

Those who are clamoring for commercial union of Canada with the United States are making special appeals to the agricultural classes of Canada in that behalf, and endeavoring to show that those classes would be vastly and directly benefited by such commercial union. It is true that there is a tariff duty upon agricultural products of the United States brought into Canada, as there is upon similar Canadian products carried into the United States. The claim is made that if no such tariff existed Canadian farmers would receive higher prices for their products, the difference being measured by the duties now levied. It is also claimed that the only way Canadian farmers can obtain the benefit of these higher prices is by commercial union with the United States, and the removal of all tariff restrictions on both sides. The drift of the arguments which are being made by these agitationists is that whatever there is to be done to bring about the conditions desired in behalf of Canadian farmers, by which they are to have and enjoy full and free access to the markets of the United States, must be done in Canada—that we must take the initiative, and make the first move.

But those who are depicting the woes of Canadian farmers and weeping crocodile tears in their behalf, are dishonest in their declamations and professions in that they fail to tell that Canadian laws already and for long time made stand upon our statute books, and that the Canadian Government stands ready and willing to enforce them on the day and hour when the United States Government sees proper to remove the restrictions they impose on the importation of Canadian products into their country. Canada cannot compel the United States to alter or amend their tariff laws, but the Canadian Consolidated Customs Act of 1886 provides (49 Victoria, chapter 33, section 9) that any or all of certain enumerated articles of farm products, fish, lumber, etc., may be imported into Canada free

of duty whenever similar articles from Canada may be imported into the United States free of duty. Pray, what more can Canadian farmers desire of their Government? The Act alluded to is as follows:—

"Any or all of the following things, that is to say:—animals of all kinds, green fruit, hay, straw, bran, seeds of all kinds, vegetables (including potatoes and other roots), plants, trees and shrubs, coal and coke, salt, hops, wheat, peas and beans, barley, rye, oat, Indian corn, buckwheat and all other grain, flour of wheat and flour of rye, Indian meal and oatmeal, and flour or meal of any other grain, butter, cheese, fish (salted or smoked), lard, tallow, meats (fresh, salted or smoked), and lumber may be imported into Canada free of duty, or at a less rate of duty than is provided by this Act, upon proclamation of the Governor-in-Council, which may be issued whenever it appears to his satisfaction that similar articles from Canada may be imported into the United States free of duty, or at a rate of duty not exceeding that payable on the same under such proclamation when imported into Canada." (42 V., c. 15, s. 6.)

This law is alive and operative to-day, and if the advocates of commercial union really desire to bring about a free interchange of agricultural products between Canada and the United States, hoping or expecting thereby to benefit Canadian farmers, let them cease their labors in Canada, where all that can be done has been already done, and transfer the scene of their operations to Washington, and exert their eloquence and persuasions on the Yankee Congress.

There will be no Canadian duty imposed on importations of lumber from the United States as soon as the Canadian Government is satisfied that the Government of the United States imposes no duty on lumber exported from Canada. Vide Consolidated Customs Act of 1886. (49 Victoria, chapter 33, section 9.)

There will be no Canadian duty imposed on importations of farm products from the United States as soon as the Canadian Government is satisfied that the Government of the United States imposes no duty on similar farm products exported from Canada. Vide Consolidated Customs Act of 1886. (49 Victoria, chapter 33, section 9.)

There will be no Canadian duty imposed on importations of coal and coke from the United States as soon as the Canadian Government is satisfied that the Government of the United States imposes no duty on coal and coke exported from Canada. Vide Consolidated Customs Act of 1886. (49 Victoria, chapter 33, section 9.)

There will be no Canadian duty imposed on importations of salt and fish from the United States as soon as the Canadian Government is satisfied that the Government of the United States imposes no duty on salt and fish exported from Canada. Vide Consolidated Customs Act of 1886. (49 Victoria, chapter 33, section 9.)

THE DOMINION EXHIBITION.

MANUFACTURERS generally have cause to be elated at the news that the annual Dominion exhibition grant of \$100,000 has been this year extended to Toronto. At the last annual meeting of the Canadian Manufacturers' Association, a resolution was unanimously passed that the Government should be urged to give the grant to Toronto this year, and since then the president and secretary of the Association have interviewed the authorities at Ottawa, in order to press the claims of this

city. The result having been favorable and the grant been secured, it now rests with the manufacturers to make such a display as will illustrate our industrial advancement in a striking manner, and demonstrate to the sceptical that since the inauguration of the National Policy in 1879 such progress has been made as to bring Canadian goods up to a standard that will favorably compare with those of any other country, and that the time for prejudicial preference for imported goods has now past. Of course there are many who prefer a Dominion medal to any other, and in some cases in the past manufacturers have overlooked the advantage of the immense number of visitors which inspect their productions during the progress of the Industrial Exhibition, and have exhibited at smaller centres. This year every successful exhibitor will be the recipient of Dominion honors in addition to the advertising opportunities that will accrue from the presence of visitors whose numbers are likely to reach a quarter of a million. This may be taken as an extravagant estimate, but we think we are not far from the mark when it is considered that the average attendance at the ordinary Industrial Exhibition is 150,000, and that this number will doubtless be very largely augmented on account of the extra attractions that will be offered and also on account of the fact that the present is the jubilee year, and as the citizens have voted against any civic commemorative display the crowds that would have visited the city for that occasion will defer their holiday trip until the holding of Canada's Great Fair. We shall publish such further information from time to time, in reference to accommodation and attractions as shall be given by the Exhibition Association.

ATTENTION, CANADIAN MANUFACTURERS.

If eternal vigilance is the price of liberty, an unceasing and persistent struggle in the dissemination of knowledge and the distribution of appropriate facts are among the essentials in maintaining a protective policy, even in the United States.

The American Iron and Steel Association is composed entirely of those directly engaged in the manufacture of iron and steel in the United States. The protective tariff of that country has made the iron and steel industry there what it is, but the industry would soon lose its prestige if that tariff was removed or very considerably modified. It goes without the saying that there are those in the United States, aided and assisted by the Cobden Club in Great Britain and others, who are constantly striving to have the tariff removed, and the Industrial League of Philadelphia is an association which has for its object the dissemination of such literature as is best calculated to keep the masses of the people fully informed on all matters relating to protection, and this is the organization, and the only one of the sort, with which the American Iron and Steel Association is identified. All publications of the Industrial League are sent free of cost to those who receive them, the expense of which is borne by the Iron and Steel Association, and the members thereof. These publications are in the form of tracts and cards of convenient size, the subjects discussed in them covering all topics of current interest. Among the titles of these tracts are embraced History and Objects of the Industrial League; Proofs of British Influence in American Tariff Legislation; Footprints of the British Lion, Free Raw Material and a Foreign Market; The Power of Congress to

Protect American Labor, Customs Duties on the Necessaries of Life; Producers and Consumers; How Protection Affects the Farmer; The Fruits of protection, Dreams of a Free Trade Paradise, etc. The Tariff Cards consist of sets of eight cards, on different topics, short, sharp, crisp and decisive.

During the year 1886 the whole number of tariff tracts printed, embracing editions of fifteen different tracts, was 361,500, all of which were distributed where it was thought they would do the most good, chiefly through tariff organizations in the different States co-operating with the League. Distribution was also made through members of Congress, to editors of newspapers and to iron, wool and other manufacturers for distribution among employes. Five thousand sets of tariff cards, eight different cards in each set, in all 40,000 cards, were distributed during the year.

Since the beginning of the present year 95,000 copies of eight different tracts have been printed, and are being distributed. The topics discussed in these tracts embrace, Is there Reciprocity in Trade? American Farmers and the Tariff, Defense of the Protective Policy; Free Raw Materials and a Foreign Market; Producers and Consumers, etc. These tracts contain from four to sixteen pages each, and were written by such illustrious statesmen as the Honorable Justin S. Morrill, the father of the Morrill Tariff of 1861, the Honorable William D. Kelley, the Honorable Thomas H. Dudley and others.

It will be seen from this that the Industrial League of Philadelphia is a working organization, and, as we are assured by the *Bulletin* of the American Iron and Steel Association, the record of last year's work in the distribution of tariff literature will be duplicated in the present year.

It should be borne in mind that all of the expenditure here alluded to was and is being made by but one organization created for this particular object, although there are a number of similar organizations in the United States, performing like service, not to mention the thousands of newspapers and similar publications engaged in teaching and preaching protective doctrines.

If, then, such is the price, or rather a part of the price of protection in the United States, where all manufacturing industries are on a much surer footing than similar ones are in Canada; and in view of the recently inaugurated crusade being led by the free traders both at home and abroad, how much more important is it that Canadian manufacturers should be up and actively at work disseminating similar tariff literature throughout Canada, and doing whatever can be done in molding and sustaining public opinion on this most vital issue.

"COMMERCIAL UNION" AND "RECIPROCITY."

WE continue the publication of letters received from Canadian manufacturers anent the question of Commercial Union. They are interesting reading, showing as they do the sentiments of the writers on the subject. The entire Dominion has become thoroughly aroused, and the feeling against the scheme to make Canada a tail to the Yankee kite is becoming more and more pronounced every day. As is shown elsewhere, Canada has already enacted a law providing for reciprocity in such natural products as are grown and made on farms, and of the mines, the fisheries and the forests, and such reciprocity may be had whenever the United States shall see proper to remove their tariff on similar products. We do not see what more the producers of such things require of Canada, and Canadian manufacturers are asking for nothing but justice in insisting that the tariff as affecting them shall be left as it now is. We continue our symposium:—

From MR. HENRY J. BIRD, *manufacturer of tweeds, flannels, yarns, blankets, etc., Bracebridge, Ont.*

"As the subject of our tariffs and international commercial arrangements has long engaged my attention, more than any other branch of political economy, I have personal convictions on the subject which would override any party platform with which I might be connected.

"Canada has been, in the past, the best customer of the United States; but the energies developed by our National Policy have shown them that we can do without them, and the recent strong endorsement of the Government policy, and its prospective extension, alarms our southern trade opponents, and induces them to 'set a sprat to catch a mackerel.'

"Should Canada be so blind as to swallow the bait, it would not be our manufactures alone that would be killed; for I feel sure that the sequel would be most disastrous to the entire Dominion; since all our infant, though thriving industries would be bereft of even the amount of protection incidental to a revenue tariff, and the well-established and powerful organizations of the States could so swamp out all British or foreign competition that we would be left almost without revenue except such as derived from direct taxation.

"The poverty and depression thus brought about would probably give rise to a desire for annexation; and in our then heavily burdened and destitute condition, and British sympathy estranged from us, I fear the conditions of union we could then obtain would be most humiliating.

"We cannot expect that Great Britain would allow us to enter into a high protective union with one of her principal trade competitors and still continue to us the protection of the British flag.

"If we grant a differential tariff to any, it must be to support the navy that guards our foreign commerce and intercourse; and may the sun never rise that sees the Union Jack sup- planted in Canada by the Stars and Stripes."

From MR. WM. BAIRD, *for self and MESSRS. JOHN BAIRD & Co., manufacturers of woolen goods, Almonte, Ont.*

"The CANADIAN MANUFACTURER will please accept our sincere thanks for the earnest attention and fidelity always shown to the interests of Canadian manufacturers.

"I often wish I could get time to write an article for publication, by way of criticising the misrepresentations, fallacious arguments and groundless assumptions which abound in Mr. Wiman's open letter, and in the speeches of Mr. Darling and Prof. Goldwin Smith; but I am overworked, and being now about seventy years of age, cannot conveniently do so. I cannot write as quickly as I used to do, and I have frequent interruptions, which dispel ideas before they can be committed to paper; but should I think it more necessary will endeavor to get something done, and have advised others to do the same."

From MR. J. A. BAIN, *of the Bain Wagon Co., manufacturers of farm, spring and freight wagons, Woodstock, Ont.*

"We are decidedly opposed to 'commercial union' with the United States, because the wagon manufacturers of Canada are not able to compete with the makers of the United States. This is not a guess, as the writer before starting this business here worked for a number of years in some of the leading factories of the United States, and knows this to be a fact. It would be like amateurs trying to beat professionals. It is all very well for the Americans who have built themselves up by protection to want us to adopt free trade. Give us protection as long as they have had it, and then we will meet them on any terms."

From MESSRS. ROBERTSON BROS., *wholesale manufacturing confectioners, Toronto:*

"After having built up our business to suit the conditions and varied demands of our own community, and with our in-

dustrial centres located and grown up, only with the development and requirements of our own territory, we are asked to invite the great manufacturing and commercial centres of sixty millions of people whose conditions cannot be disturbed, but only enlarged, to swarm into Canada along the whole line of our three thousand miles of frontier, a frontier which, after a great effort, we have just succeeded in paralleling with a railroad, connecting all parts of our country for our general good. We are no cowards, but we cannot afford to be placed at such great disadvantages as are proposed."

From MESSRS. AGUSTUS NEWELL & Co., *manufacturers of organ reeds and keys, Chicago, Ill., with branch house in Toronto:*

"The principles which underlie a just tariff and the benefits to be derived from the same, seem to puzzle the statesmen of the United States quite as much, as when our colossal manufacturing interest sought in its infancy that protection which would enable it to cope with old concerns in Europe which had abundance of capital and skilled labor, of which we had neither. People in this country are still pretty evenly divided on the tariff question after having tried both high and low systems. We fear that America is on the eve of tariff reduction, for a reason which is in no wise connected with class legislation or commercial adjustment, international or interstate, but because there seems to be no constitutional warrant or common justice in collecting money from the people for a treasury which has no use for it. But this plausible excuse for free trade falls to the ground when the interests of all parties are considered. For instance, untaxed international commerce would place the goods of the world before the buyers at bottom prices, but what would happen to the native producers of those goods? They would have to meet the prices made by foreign countries where labor is cheap. This would, in turn, strike at the vital interests of the laborers, who form a large proportion of our population. It can in like manner be shown that all other industries and interests would be disastrously affected. Therefore, while free trade may appear correct as a general theory, like liberty, and other abstract principles, it is the creature of circumstances, and we think in this country that it is vastly better to collect customs according to a basis somewhere between the extremes of a prohibitory tariff and a free trade, even if we have to expend the money on national defences or public improvements.

"Had Canada commenced her manufacturing career at the same time that the United States did, and was in the enjoyment of systems which had been improved by experience and the necessities of the times, then might her manufacturers be able to sustain themselves and join in a demand for a 'complete commercial union' with the United States. But many of the important enterprises existing in the Dominion were started about the time the 'National Policy' was adopted, and as a consequence of it, and these, together with those which already had a foothold there, under the fostering care of that policy, have had a season of prosperity without a parallel in your history. The field for manufacturing, however, is limited to only about 5,000,000 of people, and is too small to warrant the investment of sufficient capital in plants, with facilities equal to the older and larger similar establishments in the United States, so that when 'complete commercial union' or free trade should be established, instead of having the broad field of the United States and Canada for a more profitable trade, Canadians would learn to their cost that Americans would be in a position to pocket most of the profits arising from the addition of Canadian markets to their own. The contest which would follow such a consummation, would be brief and the strongest only would survive. We make no effort to present a statesmanlike view of this matter, but to oppose a scheme which, if successful, would ruin the enterprise in which we have invested our capital in Toronto, and hundreds of manufacturers in the Dominion are similarly situated."

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Canadian Manufacturer.

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ED. D. McCORMICK, *Secretary.*

This Journal has won for itself an acknowledged position amongst Trade Journals and is recognized as the representative industrial paper of Canada. All the various industries of the country are represented in its columns, and it has been for years the fearless and consistent advocate of those reforms which were indispensable to the success of the Manufacturers. It now reaches nearly every mill and factory in the Dominion, and its influence is constantly increasing.
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Communications from Manufacturers, Exporters, and others, are respectfully invited.

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Editorial Notes.

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6 Wellington Street West, Toronto.

Any association of manufacturers who may desire to hold meetings for organization or other purposes, are invited to avail themselves of the meeting room adjoining the office of the CANADIAN MANUFACTURER.

Every business man who receives the CANADIAN MANUFACTURER should carefully observe the business cards displayed therein, and, in corresponding with advertisers, mention this journal. This will be of benefit to both the buyer and the seller, and the medium by which they are brought together will also be made more valuable.

In the schedule of tariff changes published in our issue of May 20th, item No. 115 should have read:—"Iron or steel rivets, bolts with or without threads, nuts or bolt blanks less than three-eighths of an inch in diameter, one and a half cents per pound, and thirty per cent. *ad valorem.*"

In a recent action brought against a baking powder manufacturing firm in Montreal, in which they were charged with having sold as an article of food baking powder containing alum, the same being injurious to health, it was decided by Judge Dugas that baking powder is not food, and therefore cannot be adulterated within the meaning of the Adulteration Act. The case was dismissed.

THE Boards of Trade of nearly all the large commercial seaboard cities of the United States are passing resolutions favoring commercial union between Canada and that country. These boards of trade are composed mainly of importers and jobbers of imported merchandise. A close observation of the American papers fails to discover that American manufacturers as a class favor any such move, nor is there any evidence going to show that commercial union is any more popular with the masses in the United States than in Canada.

THE United States seems to hold the supremacy of the world in the production of steel. According to a tabulated statement recently made by Mr. James M. Swank, manager of the American Iron and Steel Association, the production of steel of all sorts in Great Britain in 1886 amounted to 2,364,670 tons, and in the United States to 2,562,502 tons. While in crucible steel Great Britain surpassed the United States by 475,177 tons, and in tool steel by less than 30,000 tons, in Bessemer steel the United States surpassed Great Britain by 698,670 tons, or 44.5 per cent., and in the aggregate of all kinds of steel, 197,832 tons. So much for protection.

A CANADIAN manufacturer whose views regarding Reciprocity have already been published in our symposium, supplements them by saying:—"I don't like the movement for Commercial Union, and I don't like a number of other movements I have recently noticed, all of which seem to point towards the annexation of Canada to the United States. Messrs. Butterworth,

Wiman and Goldwin Smith seem bent, consciously or unconsciously, on the accomplishment of that result. It is well that the CANADIAN MANUFACTURER so persistently sounds notes of warning against the danger. We gain nothing by telling the world that we are ready to give ourselves away for the sake of obtaining a little more trade, or a chance to gain trade from those who are just as strong, just as capable, and just as eager to secure it as we are."

At a recent meeting of manufacturers and merchants of St. John, N.B., a resolution was passed to memorialize the Dominion Parliament and the Government of Canada, asking that a line of steamships to sail regularly between St. John and the principal ports of the British and Spanish West India Islands be subsidized. The statement was made that on the completion of the Short Line railway the port of St. John would be 277 miles nearer Montreal and the great west than any other maritime city in the Dominion, and consequently possess greater advantages as an outlet for merchandize from the western province; and that St. John is the centre of the manufacturing interests of the surrounding counties and the nearest distributing point for the agricultural products of the province and also for the counties of Nova Scotia bordering the Bay of Fundy.

THE report of the Ontario Department of Immigration shows that during the year 1886 the immigrants settling in the province numbered 15,288, an increase of 1,315 over the number of settlers in 1885. Mr. Hardy says:—"In view of the general fall in the price of farm products, a like decline might have been expected in the rate of wages paid to farm laborers. This, however, was not the case, owing, principally, to the demand for general labor. Wages during the past twelve months were kept up to the standard of the previous year. Experienced farm laborers, newly arrived, commanded from \$150 to \$175 per annum, and persons having previous experience of Canadian farming, from \$170 to \$200, with board and lodging in both cases. The demand commenced early in April and continued till the end of October, all the farm laborers arriving during that period being engaged almost immediately on their arrival, and settled at little expense to the Government."

THE enormous increase in the foreign trade of the Argentine Republic during the last few years is phenomenal. Senor Quesada, the Argentine Minister at Washington, has received from his Government the statistics of the commerce of that country in 1886, the figures of which are surprising, and show that the country is growing more rapidly than any other of the South American nations. In 1886 the imports of merchandise were \$115,485,388, the greater part of which were manufactures. The enormous increase in foreign trade during the last few years is phenomenal. In 1876—ten years ago—the imports were only \$32,070,022, having more than trebled in ten years; in 1880 they were \$45,535,880, showing that they had more than doubled in five years; in 1885 they were \$95,862,633, showing an increase of over \$20,000,000 in one year. About one-third of these imports were from England, and an average of nearly one steamer per day arrived at the port of Buenos Ayres, not one of which, during 1886, was from the United States.

SPAIN has entered the field as the holder of an international exhibition, to be located at Barcelona, at which foreign governments are invited to be officially represented. The exhibition is established under the auspices of the Government and a council of patrons, composed of members of the civil, military and ecclesiastical authorities, industrial and commercial centres and financial and scientific societies in the city of Barcelona. The usual accommodation is offered exhibitors. An international jury will be appointed for the purpose of adjudging the awards, which will consist of diplomas of honor, gold medals, silver medals, bronze medals, and honorable mention, without prejudice to the awards of a national character which the executive council may suggest specially to the Government of Her Majesty. Every diploma will be accompanied by a bronze medal in the shape of a cross or other decoration, attached by a band having the national colors of Spain, and enclosed in a suitable case. The exhibition will be opened on the 15th September next, and will remain open about six months.

For several months past the Hubbard Tinning Company, of Hubbard, Ohio, has been constructing suitable works for the manufacture of tinplates, and these works are now ready for active operations. The tinning machinery has been imported from a celebrated Welsh maker, and the skilled labor to be employed also comes from Wales. This is not the first works of the kind ever started in the United States, tinplates having been made between 1873 and 1878 at Wellsville, Ohio, and at Leechburg and Demler, Pennsylvania, at which places the black plates were both manufactured and tinned. The Hubbard works will only tin the black plates, which are to be imported. The American duty on these plates is forty-five per cent. *ad valorem*, the valuation being four cents a pound or less, while the duty on tinned plates is only one cent a pound. The concern here alluded to have only about \$10,000 invested in the venture, and there is considerable doubt felt as to its success, as it is not believed that the manufacture of tinned plates in the United States can be successfully carried on with a protective duty of less than two and a half cents a pound.

THE Collector of Customs at Philadelphia has submitted for the decision of the Treasury Department a question as to what shall be considered the country of exportation in the case of certain Persian wool which arrived at Philadelphia from London consigned to Philadelphia merchants. The appraiser estimated the dutiable value of the wool at its market value in London on the date of exportation to the United States. The importers protested against this action. They represented that the merchandise was purchased at Bagdad for shipment at Bassorah to a port in the United States as directly as means of transportation would allow, London being only a port of trans-shipment, occasioned by the fact that there is no direct communication between Bassorah and Philadelphia. They held, therefore, that the market value of the wool at Bassorah at the date of exportation is the value to be estimated for the purpose of fixing the classification of the wool. In a letter to the Collector at Philadelphia on the subject, Secretary Fairchild says that under the provisions of the wool schedule the duty on wools is dependent upon "the value at the last port or place whence imported to the United States." The functions of the appraisers are, therefore, he says, restricted to the finding of the last port of shipment.

"It is not in the nature of any protected industry to be satisfied. The fellow who has 100 per cent. in his favor is as fully convinced of his need of 110 per cent. as he was convinced of his need of 25 when he had 15. The general dependence upon Government favor in place of individual merit results in a marked deterioration in the quality of goods. A pair of overshoes, a chair, an undershirt, or a stove wears out a great deal sooner than it would if the fear of foreign competition compelled the keeping up of the quality of the domestic goods."—*Hamilton Times*.

If our contemporary intends to convey the idea that a protective tariff, such as now enables Canadian manufacturers to furnish Canadian-made merchandise to Canadian consumers as against foreign competitors constitutes a "general dependence upon government favor" for existence, and that such tariff protection "results in a marked deterioration in the quality of goods" produced by them, it is badly mistaken. The facts disprove the assertion. Neither overshoes, chairs, undershirts nor stoves, being protected, wear out sooner because of such protection; and to charge Canadian manufacturers with the production of inferior goods because they are protected, or for any other cause, is an insinuation against the honor and integrity of one of the most important classes in the community. The *Times* had better revise its unwise statement.

THE *Northwestern Lumberman* thinks that the policy of the Dominion Government respecting the export of logs to the United States is of doubtful wisdom, and that it looks as if an unfair advantage had been taken of American stumpage owners in selling them extensive limits, and afterwards putting on an export duty which deprives them of realizing on their investment. The Dominion Government are the best judges of the "wisdom" of their acts and of the best methods of conserving Canadian interests, although they may be, and probably are, truly thankful to American stumpage owners in Canada and our respected contemporary for suggestions. But American stumpage owners are in the same boat with Canadians in this respect, so there is no discrimination in that direction. If "Michigan men who might otherwise build mills in Canada" are prevented from so doing by fear of any retaliatory measure against Canada Government may see proper to inaugurate against Canada growing out of the fishery question, probably we will be able to survive. But they need not wait, for such a condition is not likely to arise. Canadian logs must be cut into lumber in Canadian mills. If our American friends want to erect their sawmills on Canadian soil all true Canadians will gladly and warmly welcome them.

ABSOLUTE free trade between the United States and Canada—why not? It would benefit and enrich the people of both countries, undoubtedly; but, alas! it would disappoint and embitter two great "statesmen," so-called—Sir John Macdonald and Mr. Blaine; two great advocates of barriers, fences, obstacles and exclusions.—*New York Herald*. If "absolute free trade between the United States and Canada" would benefit and enrich the people of both countries," it would be interesting to know where that wealth is going to at the present time, and where the wealth would come to in case "absolute free trade" was agreed on. We fear the *Herald* has made one of those rash statements peculiar to those seeking free trade.

—*Wade's Fibre and Fabric*. Perhaps Mr. Erastus Wiman can give the information. Ask him. Canada holds a position to the United States as regards its manufacturing industries very similar to what the United States has heretofore and yet holds towards Great Britain. The United States has never believed that free trade with Great Britain would benefit and enrich the people of both countries, and it is evident that the protective tariff prevailing there has built up its manufacturing industries until they are now in a most flourishing and prosperous condition. But free trade between these countries is a thing not likely to occur. Canada can achieve similar greatness by persisting in her National Policy of Protection, and can no more afford to forego it in favor of the United States than the United States can consent to free trade with Great Britain.

BRITISH manufacturers are welcoming with considerable satisfaction the bill recently introduced in Parliament dealing with fraudulent trademarks. Some remarkable statements were made to Lord Stanley by a deputation of Sheffield manufacturers, in which it was declared that twenty tons of German cutlery were imported into Sheffield in one day to be sold as Sheffield goods. One gentleman stated that it could be proved that some two hundred ironmongers in the United Kingdom were in the habit of selling German goods as of Sheffield manufacture. A pair of pincers was produced on which was a label warranting them to be of cast steel and of Sheffield make, but which were manufactured entirely of malleable iron and in Germany. Boxes and cards of pocket knives were produced having the names and trademarks of eminent Sheffield manufacturers stamped on them, but which were all made in Solingen, Germany. The business of making spurious and worthless goods in imitation of those produced by British manufacturers of established reputation interferes so seriously with their legitimate trade that they are seeking redress from Parliament. Similar complaints are made in the United States. Manufacturers there who have established enviable reputations, and whose trademark on goods is *prima facie* evidence of their excellence, are confronted with a most ruinous competition from goods bearing their own trade mark, and quite similar in general appearance to the genuine, but which are of the general character described as interfering so seriously with the Sheffield cutlers. On these representations a bill was introduced into Congress prohibiting the importation of any goods into the United States upon which is placed the stamp or trade mark of any manufacturer doing business in that country, or in any way imitating or counterfeiting the same; or of any goods spurious in their character, and not strictly what they are represented to be. This condition of trade seems to demand the prompt intervention of the law and its rigorous enforcement in behalf of honest manufacturers.

SIR CHARLES TUPPER states that the net debt of Canada on March 31 was \$225,865,825.

THE timber regulations of Quebec establishing a uniform ground rent of \$2 a square mile for license for cutting square timber are modified to a fixed rent of \$5 a square mile.

RATES of freight from Europe to America by steamer are very much higher than they were two or three months ago, which will no doubt tend to curtail the importation of foreign manufactures into the States.

THE annual report of Hon John Carling, Minister of Agriculture, shows that during the last fiscal year there were 122,581 immigrants into Canada, against 105,086 for the previous year. There were 69,152 actual settlers last year.

ONE of the American consulate reports says that in one year the importation of wire for fencing in the republic of Uruguay amounted to 32,000,000 pounds. It was both barbed and smooth, and none of the latter was received from the United States.

During the fiscal year ended 31st March, the British Government received from Customs, £20,155,000; from Excise, £22,250,000; from stamps, £11,830; from land tax, £1,070,000; from house duty, £1,910,000; from property and income tax, £35,000,000.

At a recent meeting of the brush and broom manufacturers of Philadelphia it was announced that they had resolved to bring suit against all persons manufacturing or selling goods made by convict labor unless such work was branded, showing that it was made by such labor.

THE *Army and Navy Gazette* contains an account of the official trial of one of the two twin-screw torpedo-boats built by Messrs. Yarrow & Co., for the Italian Government, when a speed of 24.96 knots was obtained, this speed being the best result hitherto obtained by any vessel afloat.

THE Pennsylvania Warehousing and Safe Deposit Company of Philadelphia, Pa., have sent us a pamphlet copy of the Inter-State Commerce Bill of the United States. The text is an exact copy of the act as passed by Congress and approved by the President, and which went into effect April 5, 1887.

ADVICES from Wellington, New Zealand, state that strong efforts are being made by Canadian Pacific Railroad representatives to secure the carrying of Australian and New Zealand mails for Canada and England by steamers from those colonies to British Columbia, and over the Canadian Pacific Road.

MR. JOHN B. ALDEN, publisher, New York, through his Toronto branch house, has sent us the May number of the *Library Magazine*, published in this city. It contains 198 pages choice original and selected reading matter on interesting topics. This magazine is published semi-weekly or monthly, at one dollar a year.

MR. IRA CORNWALL, Commissioner for the Province of New Brunswick to the Colonial and Indian Exhibition held in London, Eng., last year, has sent us the Report on Agriculture in New Brunswick for the year 1886, to which is appended Mr. Cornwall's report, as commissioner, of his work and observations at the Exhibition.

THE Grip Publishing Company, Toronto, have commenced the publication of a new monthly periodical entitled Grip's Own Library, the first number of which is before us. It is a collection of comic illustrations and funny sayings previously published in *Grip*. It is printed on good paper, and at the price of ten cents ought to meet with much favor.

THERE were 2,610 patents issued in Canada last year—which was more than double the number issued in 1878. No less than 1,730 were issued to residents of the United States, 140 to residents of England, 687 to residents of Canada, and the others to residents of various other countries. Of the 687 Canadians taking out patents, 462 were residents of Ontario.

HE was a profound philosopher who compared advertising to a growing crop. He said: "The farmer plants his seed, and while he is sleeping the corn is growing. So with advertising. While you are sleeping or eating, your advertisement is being read by persons who never saw you or heard of you, or heard of your business, and never would had it not been for your advertising."

THE North-West Commercial Travellers' Association will have their certificates honored at any station on the Canadian Pacific Railway. The commercial travellers of Canada have an advantage in the matter of railroad fares over their brethren in the States, who are now compelled to pay full fares by the provisions of the Inter-state law, which prevents discrimination in favor of any class.

AN international exposition of sciences and industry will be held at Brussels next year. The Belgian government is enlisted in the enterprise, and the king, with a view to encouraging the participa-

tion of Belgian and foreign producers, has issued a royal decree appointing his brother, the Count DeFlandre, president of the committee of arrangements, and also naming the presidents and members of other necessary committees.

LONDON, Eng., papers report a lively dispute going on in that city over the "octroi," or tariff on certain necessities of life entering there. The right of the corporation to levy this tariff will expire next fall, and an effort is being made to obtain a renewal of the power. It is somewhat odd that while England is so averse to protecting herself against foreign products she should allow one portion of the Kingdom to discriminate against the remainder.

MR. S. DAVISON, Toronto, has published *The Buyers' and Sellers' Hand Book* for computing profits from 5 per cent. to 40 per cent. on sums from two cents to ten dollars; also sterling exchange at 92, and other tables of interest to merchants and others. The accuracy of the work is assured by the publisher. In addition to the tables there is included an interest table at six and seven per cent., also other useful information in a concise form.

It is stated that in the event of the Inter-State Commission refusing to suspend the long and short haul clause for the benefit of the trans-continental lines, the Canadian Pacific has decided to put on an independent steamboat line between Chicago and Port Arthur, for the purpose of competing for the carriage of Pacific coast freight, both east and west bound. Their tariff rates on through freight will be from 40 to 50 per cent. less than the rates established by the American roads.

JUDGE CARPENTER, of the Supreme Court of Connecticut, in a recent decision said: "Boycott does not mean murder, but it is criminal and dangerous, and if it is not abandoned the courts at no distant day will be called upon to recognize its dangerous tendency and treat it accordingly. From these considerations it is apparent that the purpose of conspiracy or the means by which it was to be accomplished or both were not only unlawful, but as some authorities express it, 'was in some degree criminal.'"

MR. HOWARD CHALLEN, 150 Nassau Street, New York City, is publishing Challen's Engineers' Log Book of daily runs of engines, which is ruled and printed across two pages, giving the month, day of week, average pressure per gauge, hours run, revolutions, vacuum per gauge, piston speed (feet per minute), indicated horse power, initial pressure per indicator, terminal pressure, temperature of hot well, temperature of heater, water per h.p., lbs. fuel burned, ashes and waste, oil and waste used, defects reported, repairs made, remarks, etc. One leaf for each week in the year.

THE catch of the fishermen of Michigan amounted last year to nearly 26,400,000 pounds, yielding to the parties so engaged not less than \$800,000, employing over 1,700 persons, 66 steam tugs, 318 sail boats, 232 net boats and 165 skiffs. The value of the nets, boats, docks and buildings engaged in this traffic is estimated at \$1,000,000. The territory of the fishing grounds within the jurisdiction of the state, in the great lakes, amounts to 50,000 square miles, or an area equal to three-fifths of the total land area of the state, while the coast line is over 2,000 miles in length. This is totally exclusive of any of the inland waters of the state.

THE steamers of the Canada Shipping Company—the Beaver Line—steaming between Montreal and Liverpool, connect at Montreal by direct rail with all points in Canada, Manitoba, North-West Territories and the United States, to all of which points through tickets are issued. These steamers are built with water-tight compartments and are of special strength. In the passenger department the most perfect provision has been made to secure the comfort and convenience of passengers, and an experienced surgeon is carried on each steamer, also stewardesses to attend to the wants of ladies and children. Mr. H. E. Murray, Montreal, is manager of the company.

MESSES. PALLISER, PALLISER & CO., Architects, New York city, have sent us a copy of a specification blank published by them, for frame or brick buildings costing from \$500 to \$4,500. These blanks are prepared for brick or frame buildings of every kind, in three different forms to suit cost of structures. They are formulated by practical architects, and would be invaluable to builders and those who design buildings, as by their use they will save hundreds of pages of writing and copying. This form are getting out a fine and large yet inexpensive work on plans and details, which is now in the hands of the printer, and which will be issued in the course of a few months.

THE United States Government have invited proposals from ship-builders in that country for building five new war vessels. The three cruisers must be completed within 24 months, and the two gunboats within 18 months from the execution of the respective contracts. The cost of cruiser No. 1, exclusive of armament, but including equipment, is limited to an amount not exceeding \$1,300,000. The cost of cruisers Nos. 4 and 5, including equipment, but exclusive of armament and premiums for speed, is limited to an aggregate for both vessels of not more than \$3,000,000. The cost of gunboats Nos. 3 and 4, inclusive of armament, but excluding equipment, is limited to an amount not exceeding \$550,000 each.

THE Pemberthy Injector Company, manufacturers of the Pemberthy hot water injector; the Ontario Foundry Supply Company, manufacturers of foundry supplies, etc.; the Gale Sulky Harrow Company, manufacturers of agricultural implements, and Messrs. H. D. Edwards & Co., manufacturers of Smith's patent belt fasteners, have all established works in Windsor, Ont., within the past two months; the Barnum Wire and Iron Works, Messrs. Evans & Booth, proprietors, having been established there since the beginning of the present year. These are all off-shoots from concerns doing business in Detroit, Michigan, and were induced to locate in Canada by the operations of the Canadian protective tariff policy.

MESSRS. GRAND & TOY, stationers, Toronto, inform us that they are sole agents in this city for the Tucker letter and document file, which is certainly a most excellent arrangement for the purpose for which it is intended, a full description of which is given in another page. What is claimed to be the largest filing cabinet in Canada is a "Tucker" in the Toronto branch of the Bank of Montreal, and Tucker cabinets are now in a very large number of the principal business offices in this city. It possesses large capacity, and is quick, perfect, simple and cheap. It was awarded medals at the Fair of the American Institute in New York in 1885, at the Toronto Industrial Exhibition in 1886, and diploma and medal at the Colonial Exposition in London last year.

COLONEL INGERSOLL'S illustration of the growth of the struggle between labor and capital goes in a pleasant way to the root of the whole trouble. "Here is a shoe shop," says he. "One man is always busy at work during the day—always industrious. In the evening he goes courting some good, nice girl. There are five other men in the shop who don't do any such thing. These spend half their evenings in dissipation. The first young man by and by cuts out these others, and gets a boot and shoe store of his own. Then he marries the girl. Soon he is able to take his wife out to ride of an evening. The five laborers, his former companions, who see him indulging in this luxury, retire to a neighboring saloon and pass a resolution that there is an eternal struggle between capital and labor."

MESSRS. GEO. P. ROWELL & Co., of New York, have issued the nineteenth annual edition of their standard publication, the "American Newspaper Directory." The new volume contains an exhaustive list of all classes of publications so admirably arranged that any one of the three thousand newspapers represented there can be readily referred to, and all important facts concerning it, together with its circulation, rating, etc., easily obtained. The Newspaper Directory will be used principally by publishers, advertisers and advertising agents, but the vast fund of information it contains makes it valuable to persons of almost every trade and profession. As a gazetteer alone it is well worth the price charged, \$5.00, for it fully describes every town in which a newspaper is issued, and few people care to know about any place where one is not.

MESSRS. A. S. MANDERS & Co., whose head office is at Melbourne, Victoria, Australia, are doing a large and rapidly increasing business in that country as manufacturers' agents for the sale of such good as may be wished to introduce into the markets there; and they invite correspondence regarding the same. They have branch offices at Sydney, New South Wales, and at Adelaide, South Australia, at which three points they are within easy access of jobbers, dealers and large consumers. They have also established branch offices in London, Eng., in New York city, and in Toronto; Messrs. Nicholls & Howland, 63 Front Street West this city, being their Canadian representatives. The attention of Canadian manufacturers who desire to extend their trade to the Australasian islands would do well to correspond with Messrs. Manders & Co. Messrs. Nicholls & Howland will give information.

THE United States was the only country in the world that made any notable increase in the production of pig iron in 1886 over the

production of 1885, her increase being 1,640,017 gross tons. It is estimated that Russia increased her production 6,000 tons, Spain 4,000, and Austro-Hungary 17,000. On the other hand, the other principal iron-making countries of Europe show a total decrease of 920,225 tons, distributed as follows: United Kingdom, 379,992; Germany, 411,972; France, 102,495; Belgium, 15,766; Sweden, 10,000. Taking all the European countries named, they produced 893,225 tons less of pig iron in 1886 than they produced in 1885, while the United States, as stated, produced 1,640,017 more. In other words, almost wholly owing to the great increase in the United States the chief iron-making countries of the world made about 746,055 tons more pig iron in 1886 than they made in 1885. —*American Manufacturer.*

THERE is but little doubt that systematic undervaluation is carried on to a great extent, and that, vigilant as are the custom's officials, but a small per centage of frauds are actually detected. The only way to mitigate this evil is by the substitution of *specific* for *ad valorem* duties, and we are pleased to note that the Government appears to be favorable to such substitution wherever practicable. According to the public accounts of the fiscal year ending June 30th, 1886, seizures at the different ports were comparatively small in amount. The figures show that the great bulk were made at the port of Montreal, which probably explains the opposition from that city to the penalty clause of the Customs Act. Toronto appears to have the best record for commercial morality according to the following abstract: The fines for undervaluations in Montreal were \$72,633; in Windsor, \$5,824; in Hamilton, \$5,792; in Kingston, \$4,018; and in Toronto, only \$1,614.

WHEN the Dominion Government were arranging to have Canada properly represented at the Colonial Exhibition in London last year, they employed the Automatic Refrigerator Company, of Ottawa, to fit up suitable refrigerators in the steamers Sardinia and Vancouver, in which such perishable articles as fruits, vegetables, etc., were to be sent over. These refrigerators were constructed on the Hanrahan patent, and when the steamers arrived in London it was found that their contents were in most excellent and perfect condition, and the Government were so well satisfied with the results that the Minister of Agriculture, Hon. J. Lowe, wrote a complimentary letter to the makers regarding them, and in which he stated that the results had been in all respects satisfactory, and fully realized the anticipations which were formed concerning them. The manufacturers are meeting with a large demand for these useful articles, and will have a fine specimen in the Permanent Exhibition of Messrs. Nicholls & Howland in this city.

WE are in receipt of the annual report of the Board of Trade of the city of St. Thomas, Ont., which also contains statistics of the business and other interests of that city for the year 1886. Issued by authority of the Executive Council. The names of the officers, council, and other members are given; also the report of the council—a most interesting paper customs returns; of foreign imports and exports for 1885 and 1886; statistics showing the importance of the city as a railway centre; a condensed description of the manufacturing industries existing there, and other important information regarding the local newspapers, hotels, banks and other monetary concerns, churches, schools, etc., and suggestions regarding the advantages of the city as a manufacturing center. The following manufacturing industries are enumerated in the report:—7 carriage and sleigh factories, 1 cigar, 1 boiler, 1 broom, 1 book bindery, 2 pump, 1 carpet sweeper, 1 hay fork, 5 harness, 1 iron fence, 1 marble, 1 organ, 1 brewery, 2 cider and vinegar and 1 flax factory, besides several mills and similar concerns. St. Thomas is certainly a thriving, growing town.

THE passengers by the steamer Lake Superior of the Beaver Line, lately arrived at Montreal from Liverpool, presented the following address to Mr. H. E. Murray, the general manager of the company in Montreal:—"Now that the tide of emigration has begun, and people are flocking from the old country to the new, we, the undersigned, steerage passengers per the steamer Lake Superior, wish to make known on both sides of the water our sense of the care, kindness and attention we have received on board from Captain Stewart, the doctor, Steward Welsh and his staff. The food has been good and plentiful, the sanitary arrangements all that could be wished for, and our various other comforts have been excellently attended to. With regard to sleeping accommodation, we found the berths comfortable and well ventilated, abundance of room being allowed on deck for passengers, and we would mention the special care taken of the women and children. Many of us are old travellers, and find the Beaver Line is all that can be desired, if we

may judge by the steamer in which we have crossed." This was signed by the passengers to the number of ninety-one, many of them being heads of families.

Is the abstract, no one can gausay the immense Imperial importance of the completion of a railway from ocean to ocean across the British portion of the North American continent. It is a magnificent illustration of colored energy and enterprise. It brings the Pacific coast within fourteen days of ports in the British Islands. It furnishes, whenever we choose to use it, a means of transit and transport to our possessions in the East, lying entirely so far as the land is concerned, in British territory, and, so far as the sea is concerned, in those portions of the two oceans which seem designed by nature to be the special appanage of British commerce. It thus affords an invaluable alternative to the two existing routes to the East, by the Suez Canal and round the Cape, safer than the canal route and more expeditious than the Cape route, and considerably shorter in point of time to all Oriental ports eastward of Hong Kong. These advantages, important in the time of peace, would become inestimable in the case of war with a maritime power. We possess docks at Esquimaux capable of receiving the largest ironclad, and Vancouver possesses the only good coal supply in the North Pacific. A further advantage of this alternative route to the East is that it affords the potentiality, though not at present the actuality, of a line of telegraphic communication with our Eastern possessions lying wholly within British territory and control. The North Atlantic would in the case of war with a first-class European power become our most important line of maritime communication. If we could not guard it from serious depredation we should suffer in a vital point. It is in our power, and might be not less vital to our interests, to make ourselves equally strong in the North Pacific. The Canadian line, therefore, affords the only line of telegraphic communication with India on which, so long as we retained effective command of the sea, we could absolutely depend. It would also be equally valuable for military transport. Even if the canal and Cape route remained, we have the authority of Lord Dufferin, as quoted by Lord Harrowby, for saying, "that the effect on the native mind of English troops reaching India from the East as well as the West would be enormous."—*London Times*.

COMMUNICATION.

The following communication explains itself —
To the Editor of THE CANADIAN MANUFACTURER.

A number of articles and letters have recently appeared in the daily newspapers of this city which are calculated to throw a slur upon the character of the manufacturers who happen to be members of the Toronto Board of Trade, the recent verdict of which on "Commercial Union" has been styled "A poor expression of nine hundred members," "a snap judgment," etc.

You will remember that a meeting of the Board was called on Friday, May 13th, for the purpose of discussing the present and prospective relations of Canada with the United States. At that meeting a certain motion and amendments were moved, and at ten o'clock, on motion of Mr. Rose, the meeting was adjourned until Thursday, May 19th. At this latter meeting—one of the largest and most representative gatherings that has ever congregated at the Toronto Board of Trade rooms—a substitutive motion was moved by Mr. John McDonald (not a manufacturer), and supported by a strong address by the gentleman.

The meeting was called for eight o'clock, but it was half past eight before the Board got into the discussion of the question, and at ten o'clock three or four very interesting addresses had been delivered, the general feeling of the meeting appearing to be against the original motion. For some reason difficult to understand, Mr. Rose again moved an adjournment, which was unexpected to a large number, who, at the loss of other important engagements, had made it a point to be present, but that motion was voted down by a large majority. At this a considerable number left the room, calling forth indignant remarks from one of the members of the Board as to their discourtesy in leaving the meeting after the motion of adjournment had been defeated. It then became apparent that there were a number present who intended, if possible, to stifle any further discussion that evening by continually making motions to adjourn. The reasons advanced for adjournment were that a number of members who wished to express their views could not be present that evening, some being at the Philharmonic concert. When that reason was advanced the writer noticed that a number of gentlemen drew Philharmonic tickets from their pockets, and stated that they considered their attendance at the Board meeting of more importance than a concert, and as they were present to

hear this question discussed, they certainly were not prepared to have a motion of adjournment carried at such an early hour in the evening, only one and a half hours having been taken up in the discussion, and not more than three or four addresses delivered. However, the obstructionists seemed determined to carry this adjournment, and one hour and twenty minutes of what would have been valuable time in discussing the question was wasted in discussing motions of adjournment. Mr. Darling claimed the privilege of replying, which privilege was not denied him if he wished to reply there and then, but certainly the Board could not take his disinclination to do so as an excuse to adjourn the meeting to a further date when so many gentlemen were present to hear the discussion. Mr. Darling then stated that there were those present who would keep the Board talking all night rather than this question should come to a vote, and motions of adjournment were again pressed.

To offset this deliberate attempt to throttle the clearly expressed wishes of the Board, and as repeated motions to adjourn could only be defeated by moving the previous question, the previous question was demanded, and Mr. John McDonald's substitute motion was voted upon and carried almost unanimously.

Professor Goldwin Smith states that about eighty members of the Board of Trade, out of a total membership of about nine hundred, voted for Mr. McDonald's motion; but there were not less than one hundred and forty members in the room, and there were not more than eight or ten of these who voted against Mr. McDonald's motion. Mr. Goldwin Smith looks upon this vote as but a poor expression of the views of the Board of Trade; but I believe I am correct in stating that it was perhaps the largest majority of any Board meeting that has ever yet been declared in favor of a motion. Nearly all questions of importance which come before this Board are usually discussed and voted upon by not more than from thirty to forty members, and many of the meetings of the Board have not more than the bare necessary quorum of fifteen members present. As an illustration of how important business has been transacted at Board meetings where but a quorum were present, a large number of members who had been induced to join the Board because of the privilege that to two or more members of a firm, the annual fee for each would be \$7.50 instead of \$10. This was to meet an objection that one representative from a firm was all that was necessary to represent the views of that firm at the Board, but at a meeting of the Board, at which a motion was carried requiring that all members should pay a ten dollar entrance fee, and where it was learned that upwards of three hundred members would be affected by the motion, the motion was carried, although there was but a bare quorum present at the meeting. There were not more than about twenty members present to vote away the privilege accorded to these three hundred persons, and only two days' notice had been given the membership to either support or defeat that motion. It was shown that two or more members of a firm did not have equal rights with the other members of the Board, in so far that only one member of a firm could be an officer or member of the council, but the vote was carried, and by the bare quorum of the Board of Trade three hundred members were deprived of a privilege that has been accorded and enjoyed for upwards of twenty years.

I merely refer to this to show how incorrect Mr. Goldwin Smith is in saying that the vote alluded to was not a correct expression of the views of the Board of Trade, for it was certainly the most unanimous expression that has taken place on any matter that has yet come before the Board since its inception. It is also fair to assume that those present were the most active and most interested in the question at issue, adding still greater importance to the resulting vote, and that the stifling of discussion, instead of being on the side, as alleged, of a few of the manufacturers who were present, and the large number of business men who supported Mr. McDonald's motion, was really on the side of the disappointed few who hoped by obtaining adjournment to deprive the members who had come prepared to speak upon the subject of the opportunity of expressing their views. I write you, Mr. Editor, thinking it advisable that this insinuation in our daily press should be replied to, and that the public may be properly informed as to the conduct of that meeting.

Yours truly,
P. W. Ellis

TORONTO, May 23, 1887.

THE first of the three Canadian steamers purchased for the Canadian Pacific Railroad ocean traffic, to ply between Hong Kong and Vancouver, was advertised to sail from Yokohama May 29. The Pacific Coast Steamship Company has filed a bond with the collector of the port of San Francisco for \$100,000, which will be forwarded for approval to the Department at Washington, which, if accepted, the company will be authorized to carry goods in bond by way of Puget Sound and the Canadian road, and compete for the tea and rice trade.

Manufacturing.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

WORK has been begun on the new pulp mill of the Toronto Paper Company, being built at Cornwall, Ont.

MR. G. A. DOULL, Sackville, N.B., is erecting a wood working factory 50 by 35 feet, three stories high.

A. C. MILLER & Co., Picton, Ont., are building a new factory for canning fruits, vegetables, etc. The building is 85x36 feet, three stories.

THE Record Foundry and Machine Company, Moncton, N.B., have applied for incorporation. Mr. A. E. Peters has been elected president.

THE municipal authorities of Port Hope have accepted the proposition of the Williams Piano Company of Toronto, to move their works to that place.

At a recent meeting in Montreal of the Dominion Type Founding Company, Mr. Alexander Murray was elected president. A dividend of five per cent. was declared for the preceding half year.

MESSRS. MOORE & MCGARVIN, Acton, Ont., manufacturers of trunks, valises, satchels, etc., are enjoying a gratifying demand for their goods. They will make an exhibit at the forthcoming Toronto Industrial Exhibition.

MESSRS. ENGLAND & SONS, tanners, of Knowlton, Que., have recently purchased a large quantity of hides in Hong Kong, China, which will be shipped to their works at Knowlton by the Canadian Pacific Railway from the Pacific coast.

THE Osborne-Killey Manufacturing Company of Hamilton, Ont., are supplying the motive power for the new chemical pulp factory at Chatham, N.B., which consists of three boilers of 130 horse power each, and a pair of engines, coupled on the same shaft, of 300 horse power.

THE Aylesford Canning Company, Limited, seek incorporation. Their place of business will be at Aylesford, Kings County, N.S., and capital stock \$5,000. They intend to manufacture canned peaches, apples, evaporated corn, beans and other vegetables, fruits, pickles, vinegar, etc.

MESSRS. R. EHRHARDT & SON, Moncton, N.B., do a large amount of silver and nickel plating work for stove manufacturers, for railroad cars and locomotives, etc., besides plating knives, forks, spoons, etc. It is understood that this concern will go in with Mr. Duffy when he starts up work in his lock factory.

It is understood that work will, at an early date, be resumed on the Ontario and Quebec Railway on that section of it which will form a second direct line between Ottawa and Toronto. Already trains are running over it from Toronto to Bridgewater, and as far as Perth the line is graded and ready for the rails.

APPLICATION is made to Parliament by the Hydraulic and Manufacturing Company of St. Johns and Iberville for an act of incorporation, empowering them to make improvements on the Richelieu river, utilizing water power, etc. The capital is fixed at \$100,000 and the chief place of business is St. Johns, Que.

As ONE of the results of the new duty of 35 per cent. on foreign manufactured paper of the finer kinds, Messrs. J. B. Rolland & Son, the large paper men of the city of Ottawa, have decided to commence the manufacture of such paper at their extensive mills at St. Jerome, and already 200 hands have been engaged for the work.

A COMPLETE plant has recently been erected at the works of the Staffordshire Steel and Ingot Iron Company, Bilston, Eng., for the grinding of basic slag for agricultural fertilizing purposes. The slag being composed of 40 per cent. of lime and from 15 to 20 per cent. of phosphoric acid, its value as an agricultural fertilizer is becoming increasingly appreciated.

In Sweden, the stumps and roots of trees remaining after a wood has been cut down, are being used for the extraction of illuminating oil by dry distillation. Other products, such as turpentine, creosote, acetic acid and tar, are also obtained. When mixed with benzine this oil can be advantageously burned in ordinary benzine

lamps. It is reported that this industry promises to become very important.

In factories where pencils are made in numbers, a simple method of counting has been devised, with a view to saving time and trouble. Strips of wood are employed, having in each 144 grooves, and the workman, taking up a handful of pencils, rapidly rubs them along the board once and back, thus filling all the grooves in which the pencils lie, similarly to pens on a rack. In five seconds a gross may thus be counted, without the least likelihood of making a mistake, and much time and labor are saved.

THE works of the insolvent Peters' Combination Lock Company at Moncton, N.B., according to the *Times*, are to be put in operation again, this time by Mr. D. A. Duffy. The company, previous to its being placed in liquidation, gave employment to about 100 hands. The buildings include a three-story brick factory, with detached wooden buildings for moulding shops, japan shop, etc., all stocked with the necessary appliances and machinery for the making of builders' hardware in brass and iron, tools, machinery, etc., with an extensive plating department.

MR. GRAY, of the London Crockery Manufacturing Company, London, Ont., is reported as saying that his company's works are the only establishment of the kind in Canada. The recently erected buildings cost \$50,000. The products embrace rockware, caneware, Bristolware, salt-glazed ware, terra cotta, fire bricks, chimney tiles, smoking pipes, bath-brick, sewer pipes, whiteware and many other lines of crockery and stoneware. The works employ over 100 hands. During the past winter these works manufactured some 500,000 door knobs for the Peterborough lock works, and expect next year to turn out for the same company over a million knobs.

THERE are in the Dominion of Canada at the present time the following iron and steel works:—Londonderry, Nova Scotia.—Two coke blast furnaces and a refined bar mill, with puddling furnaces, forge, etc. Three Rivers, Quebec.—One charcoal blast furnace. Drummondville, Quebec.—Two charcoal blast furnaces. New Glasgow, Nova Scotia.—Open-hearth steel furnace and rolling mill. Halifax, Nova Scotia, (one.) St. John, New Brunswick, (three.) Montreal, (four.) Hamilton, Ont. (two)—rolling mills for reworking scrap and puddled bars, mostly into nail plate. New Glasgow, (one.) Hamilton, (one)—forge for working scrap, mostly into car axles. Montreal.—Rolling mill for making butt-welded pipe.

THE Simons gas well, owned by one of the Toledo, O., companies, has lately been accurately measured and its exact capacity determined. This is shown to be 12,400,000 feet per day. For use as fuel 12,000 feet of gas is equal to one ton of the best bituminous coal. By this reckoning the daily product of this well is equal to 1,033 tons of coal; 7,231 tons per week; 376,012 tons per year. One well is supposed to draw from about eight acres. The two Toledo companies control by purchase and by lease 50,000 acres of tested gas lands in the vicinity of the Simons well. Two companies are now piping her streets, intending to lay 150 miles of pipe this summer, and over \$25,000 per week paid out to common laborers and will continue to be until next snow comes next winter. While a "boom" is inevitable, the public sentiment is against it, and no encouragement is held out to professional boomers, but open hands are offered to manufacturers, who are turning that way from all over the country. Toledo's shipping facilities are unsurpassed, and the gas companies promise lower prices than in Pittsburgh.

THE Londonderry Iron Company are seeking incorporation for the purpose of acquiring the iron works at Londonderry, the head office to be at Montreal, and the capital stock to be \$1,000,000. Regarding this enterprise, and Canadian iron interests generally, the *Montreal Star* says that this is the only establishment in Canada at present manufacturing pig iron with coke as fuel, but other blast furnaces are certain to be started as soon as adequate protection is assured. A large amount of capital is at present awaiting investment in Pictou County, N.S., where the coal, iron and limestone lie together in almost unlimited quantities. If adequate protection is granted this season, work will be commenced immediately. It is possible that the projected Pictou county enterprise will be the only new establishment of the kind started immediately, but a number of companies have been organized for the manufacture of iron in various parts of Canada, and there is no doubt that when protection for the iron industry is acknowledged to be the settled policy of the Government, the flare of the blast furnace, now so unfamiliar a sight to Canadians in general, will be seen at night in every province of the Dominion. Canada is probably by nature more richly endowed with stores of iron than any other country, and it is an established fact that no other manufacturing industry directly and indirectly gives employment to as much labor as iron-making.

Textiles.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

MR. J. W. WALLACE, Lindsay, Ont., is building an addition to his woolen mills, which will be occupied by Mr. Nicoll and others as a button factory.

MESSRS. McCRAE & Co., Guelph, have secured the contract for supplying the North-West Mounted Police with 2,000 shirts and 2,000 pairs of heavy drawers.

THE Courtenay Bay, N.B., cotton mills are now owned by Messrs. William Parks & Son (limited), the former proprietors the St. John Cotton Company having ceased to exist.

THE amount of capital invested in the print mill at Magog, Que. is \$450,000. It is said that this mill is producing about six million yards annually, or about one-fourth of the prints that are consumed in Canada.

MESSRS. DAVID HAMBLETON & SON, Lachute, Que., make a specialty of manufacturing bobbins and shuttles for cotton, woolen, silk and worsted manufactures, and make to order picking sticks, skewers, spools, etc.

THE British American Dyeing Co. of Montreal and Toronto are making important extensions to their works which will be completed during the coming summer. They will include a new dye house 80 by 40 feet, another engine room 36 by 25 feet, two extra drying rooms, and a room to be devoted to a new French process of cleaning. These extensions of themselves are claimed to be larger than any other dye works in the Dominion.

THE *Bulletin* of the Philadelphia Textile Association estimates the wool clip of 1887 at 52,874,524 pounds washed, and 208,595,126 pounds unwashed wool, which, compared with the estimate for 1886 by the same authority on the same basis, is represented as indicating a decrease of over twenty million pounds for 1887, four million pounds decrease being allotted to the combing-wool States, and twelve millions to Texas. A decrease of nearly thirty-three million pounds is estimated to have taken place since 1883, or since the present tariff went into effect.

THE year 1886 was one of the most prosperous years in the history of the Bombay cotton mills. Besides a good local demand, Indian cotton goods were taken by China and Japan in greater volume than ever before. The total exports of cotton goods were 219,959 bales, against 173,537 bales the previous year. Of these China took 199,407 bales and Japan 20,543 bales, against respectively 199,407 bales and 19,020 bales in the year 1885. A large increase in the capacity of the Bombay mills is reported as a consequence of the improved demand and prosperous trade.

UNITED STATES CONSUL GRINNELL writes to the State Department at Washington, from Bradford, England, giving a table showing the value of woolen goods exported from the consular district of Bradford to the United States during the past twenty years to have aggregated \$230,944,839.09. In 1882, the year preceding the passage of the Tariff Act of 1883, the importation of woolen goods from Bradford amounted to \$8,161,188.46. In 1883 the importations rose to \$10,766,497.27, and have steadily increased since that year, amounting to \$17,877,892.65 in 1886.

THE business heretofore carried on in the town of Dundas, Ont., by Messrs. Samuel Lennard & Sons, will hereafter be under the firm name of S. Lennard, Sons & Bickford, the co-partners being Messrs. Samuel, S. J. and H. Lennard, and H. Bickford. This concern are the patentees of the "Elysian" seamless hosiery, and manufacturers of plain and fancy hosiery, caps, tuques, sashes, etc. Messrs. F. W. Newman & Co., Montreal, represent this firm in eastern Ontario, Quebec, Nova Scotia and New Brunswick: Messrs. Peddie & Co. in Winnipeg, Man., and Mr. S. Lennard, senior member of the firm, in western Ontario.

UNDER the old system of cotton mixing, the cotton is taken from the bale, pulled by hand, and then thrown on to the mixer, but the unsatisfactory manner in which this work has been performed has led to the construction of a bale-breaker, which is specially designed and adapted for this important work. The machine consists of a lattice, one connecting roller, and three pairs of breaker rollers. The special features in its construction are principally: the breaker rollers, so arranged—with a well-proportioned draft between each pair—that all the features are obtained, and the cotton

from every bale is equally and well pulled. This machine will pull and lay down 90,000 pounds of cotton per week, with only two men in the mixing room.

THE Oxford Manufacturing Company, of Oxford, N. S., have just patented in Canada and in the United States a valuable improvement in carding machines, consisting of a simple attachment by which an endless variety of patterns may be produced, differing in style from anything hitherto manufactured, a specimen of which is now before us. Many handsome patterns of these goods are being shown in summer weights, the company's trade mark—a tape woven across the ends—being shown in every web. We learn that goods made by this process are meeting with extensive sale both in Canada and the United States. All these goods are made of pure wool, and may be relied upon for good general service.

INITIATORY steps have been taken at Ottawa and Montreal for the formation of a new woolen mills company, under the name of "The Globe Woolen Mills Company, of Montreal," of which Mr. T. J. Claxton has been elected president. The *Montreal Herald* says that the company have already secured the old Corriveau silk mills property. They intend to erect large buildings extending on Papineau road. These buildings have already been contracted for, and arrangements are being made to push forward the work, so as operations at the mills can be commenced about the first of July. It has been decided by the company to make a fine class of woolen dress goods. The capital of the company is \$200,000, and it is the intention at first to employ about 200 hands, but the capacity of the mill, it is said, will be doubled as soon as possible.

MR. PETER WHITE, the managing director of an Irish woolen manufactory, recently arrived in New York says:—"Part of my mission to this country is to find out what articles America buys from other countries, with a view of obtaining a share of the trade for Ireland. I would not, as a business man, come here were I not in a position to compete in the open market with all comers. The history of the Irish woolen trade is very interesting. As far back as 1600 we were renowned for the quality of our serges and tweeds. In the year 1698 both houses of English Parliament presented petitions to William, who was then king, asking him to discourage the manufacture of woolen goods in Ireland, and he did it. Parliament passed an act prohibiting the export of wool or woolen goods from Ireland under pain of forfeiture of goods and ships and a penalty of £500."

THE most recent development in the Bradford, Eng., trade, and one which will doubtless be far-reaching in its effects upon the trade generally, is a process by which certain cloths are made perfectly water-proof. Hitherto the common term "water-proof" has had two significations—first, the old process of water-proofing tweeds, and latterly the adaptation of it to all-wool cloths for ladies' overcloaks by putting them through a solution of sugar of lead and alum. This process, however, lacks permanence, as after a few wettings the virtue is gone and the garment is no longer of value as protection from rain. It is claimed to be the only permanent and hygienic proof yet produced, superseding the earlier rubber and Mackintosh processes from the fact that the cloth after treatment remains as porous as in its original state, impervious to wet, damp or mildew. Hence it can be sponged, ironed and dried again and again, without any shrinking or other effect upon its appearance or rain-repelling qualities. For ladies' wear, or spring and summer suitings and light overcoats for men, the new cloth will be invaluable.

THE Australian wheat crop is reported as now safely harvested, yielding about twelve bushels per acre, and giving a total crop of about 12,000,000 bushels. Of this amount about 5,000,000 bushels will be available for export, or about three-fourths of a million bushels more than the surplus of the previous crop.

INFORMATION from Washington states that recent correspondence with the Canadian Government has resulted in an understanding that the Canadian regulations in regard to the towing of vessels in Canadian waters and at Canadian ports by American tugs shall be amended so as to extend to American tugs when in Canadian waters, "the same rights and privileges as are granted to Canadian tugs in American waters." Complaint was made by the British Minister that full legal privileges were not extended to Canadian tugs when visiting American harbors in the upper lakes. The Treasury Department has issued a circular to customs officers calling their attention to the law on the subject, and instructing them to allow Canadian tugs visiting American harbors full privileges under the law.

Milling.

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MR. W. H. LINGHAM, Belleville, Ont., has recently put his 75 barrel roller process mill in operation.

A THIRTY-THOUSAND-BUSHEL elevator will be erected in connection with the new flour mill at Rapid City, Man.

THE South American Trading Company, of Montreal, has been organized with \$60,000 capital, to manufacture and prepare for market all sorts of food products.

WORK will shortly be commenced on the 1,000-barrel flour mill and elevator, to be built at Keewatin.

THE Ogilvie flour mill at Winnipeg will be increased about 200 barrels in capacity, to 1,000 barrels per day.

AT the auction sale of real estate held the other day, the city grist and flour mills were sold to Messrs. James Stevenson, M. P., of this town, and Alex. McDonnell, Lindsay, for the sum of \$7,000.—*Peterboro' Review.*

THERE are nearly 3,000 flour mills in the Dominion of Canada, representing about \$10,000,000 of capital. Commercial union would practically wipe this industry out of existence.—*Mechanical and Milling News.*

DURING the earlier days of new process milling there was a good deal of sentiment about the use of rolls. Millers would say that they hadn't a millstone in their mill—that the day of the millstone had passed. Before many months there was a secret wish for a pair of the old millstones to finish on, and as this wish became universal, many millers replaced one or more pairs of the buhrs. Now about every well ordered roller mill has buhrs in it, to the great comfort of the miller.

THE time will come soon when roller mills programmed on the old system of making hominy will find their yield so small that they will not be able to compete with mills running on a more economical system, and will be compelled to change. But the change will not be an expensive one. All they need will be to drop out the hominy mills and put in a proper system of separations and aspirators. And experience has demonstrated that the sieve action, instead of reels, is the correct principle for separating meal.—*J. M. Case.*

AN Iowa paper says that one effect of the prohibitory law in that state has been to divert a large quantity of corn from the distillery markets and send it to the public through other channels. The production of hominy, in particular, has been greatly stimulated, and as hominy, in spite of its humble and not specially enticing qualities, is much less injurious than the liquid product of corn, the operation of the law is clearly shown to be beneficial in at least one direction. This is what might be called the argument ad hominy.—*Chicago Tribune.*

IT would be a good thing for the millers if consideration were given to the subject of packing flour in sacks instead of in barrels. The item of the cost of the barrel over that of a sack is enough to make quite a profit in a year's run, and we can see no adequate reason for so universal a use of the barrel. It costs more to ship flour packed in barrels than it does in sacks and gives no one any benefit except the coopers. Many housekeepers empty the flour from the barrel into the flour bin as soon as it is taken into the house and then the barrel is either sent back to the mill or stored where it will fall down and be used for kindling wood.—*Millstone.*

IT is expected that an important trade will be opened between this port and Antwerp in low grade flour, as a number of shipments have been made to that port from Canada during the past winter, which have given great satisfaction. It appears that large quantities of this class of flour are used both in Belgium and Germany, and as Canada has a considerable surplus to spare as a result of the roller process. Some of our dealers appear to be quite sanguine of the development of a large shipping trade in a grade of flour which has for a long time past been a complete drug in the market. It is estimated by one of our leading dealers that a market can be found on the Continent for all the low grades that Canada can produce. A letter recently received from Antwerp says that Canadian flour is very much appreciated in Belgium.—*Montreal Trade Bulletin.*

THERE is no such thing as a standard product from flour mills. Each mill has a standard of its own. It is variable, the miller improving or making an effort toward improvement every year. Milling is perhaps the only manufacturing business where there is no fixed standard for the product. The difference between the same grade of cotton goods from any of the many cotton mills of New England is so slight that there is very little choice to be made. Who can say anything like this for the output of our flour mills? There are some reasons why this desire on the part of the miller to improve his product is a good one, it keeps him always abreast of the times. But when this desire for improvement is coupled with an effort to keep his improvement to himself it does him harm. No man can get the amount of good from his own experience that he can from the combined experience of those who are working in the same line with him. Thus he is in the run a loser by his secretive spirit. A free interchange of experience, a standard grade of goods, would do much to keep up the quality of the flour from our mills, and would, through the aggregate knowledge of our millers, do so much to cheapen the product that there would be more profit in milling than is possible under present conditions.—*Millstone.*

THE name of Geo. T. Smith, of Jackson, is known in all civilized parts of the earth, or at least in all places where wheat is ground into flour. His invention of the purifier now universally employed in flouring mills, his great legal tussle for his right as inventor, in which he fought single-handed against one of the strongest combinations ever formed, and his final victory, are still fresh in the minds of all who are interested in flour and wheat. Without the purifier no mill could compete for business. Almost every mill in the world adopted it and nearly all fought against paying for the privilege. Their combined strength, however, availed them nothing, and now Mr. Smith receives an enormous income from royalties. Other changes, the introduction of rollers and numerous improvements, have made the flouring mill of the present day quite unlike the mills that poets used to write about. The aim of the millers of the present day is to obtain the highest possible percentage of "patent" flours, and a mill which gets sixty-five per cent. has been considered about as near perfection as possible. Pillsbury, the great Minneapolis miller, obtains sixty-five per cent. and is considered quite above the average in success. Not satisfied with once revolutionizing the mills of the world, Mr. Smith is just now sending consternation among the millers by another improvement by which he guarantees eighty-five per cent. of patent flour, a gain of twenty per cent. over the hitherto best average. If A and B are millers, and the former gets twenty per cent. more patent out of his wheat than the latter, B will go to the poor house. Any business man, even if not a miller, can understand that, especially in these days of hot competition and small margins. It will therefore be necessary, if Mr. Smith succeeds, for all mills to adopt the new method or go out of the business. This, if they desire to keep pace with the procession, will involve a very heavy expenditure. Mills that up to a few days ago were considered perfect, will have to be entirely changed. Good machinery in perfect order will be torn out, and a complete new plant substituted. The matter is now under consideration by the owners of the Union mills in this city. For mills of the present capacity of the Union the change will cost \$30,000, but it is probable that if the change is made the capacity will be increased and \$50,000 expended in making the improvements. Pillsbury has given the order for fitting three mills with new machinery at an expense of \$150,000. At this rate the profits of milling will all be required for improvements, for the plant in nearly all mills is now new, and in many instances has not produced flour enough to pay for itself. Most of the mills in Detroit have been furnished with improved machinery within the past three years. All of this is in first-class condition and the millers will kick it into the alley with great reluctance.—*Detroit Free Press.*

THE following patents have been granted by the United States Government to Canadian inventors since our last issue:—Charlotte C. Cannon, London, Ont.—dish drainer. Elouild Duplessis, Lake Weeton, Que.—car mover. G. S. Hanes and A. Shaver, Iroquois, Ont.—fire escape ladder. J. B. McLaren, Winnipeg, Man.—safety water gauge. Delphis Picard, Montreal, Que.—wood-working machine. E. K. Barnsdale, Stratford, Ont.—wire fence advertiser. Tronson Draper, Petrolia, Ont.—ball turning lathe. W. E. Forster, Lawrencetown, N. S.—gun cleaner. George Harvey, Winnipeg, Man.—apparatus for cleaning chimneys. John Hepworth, Montreal, Que.—variable expansion gear. Daniel Kearney, Montreal, Que.—stop-valve for water service pipes. George and R. Kennedy, New Westminster, B. C.—automatic perforator for printing presses. George Valiant, Toronto, Ont.—boot or shoe (4 patents). John Williams, Quebec, Que.—ventilator.

Lumber.

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SPRUCE LUMBER.

THERE is no lumber growing in America to-day, says a Boston, Mass., paper, which sells at so low a price, in comparison with its intrinsic value, as spruce. We know of no wood that could fill its place for light frames or for general building purposes, where strength, stiffness and lightness are to be combined in one kind of lumber. Spruce lumber has always been supplied so cheaply to builders that its real value has been under-estimated or perhaps overlooked. It is a lamentable fact that the grand spruce forests of northern and eastern New England have been largely sacrificed without any corresponding gain to owners, operators, mill men, or even to lumber dealers.

The principal growth of spruce in America is confined to Maine, New Hampshire and Vermont, the Adirondack region in New York, and to Lower Canada, including New Brunswick and Nova Scotia. There is little spruce west of New York State and of the Ottawa river, in Canada. Spruce is in much smaller supply on this continent than either pine or hardwood, and is of much slower growth than sapling pine. A scarcity of spruce, which is not likely to occur in this generation, would, however, prove a most serious inconvenience to builders.

The supply of pitch pine in the Southern States is greater than the aggregate growth of spruce in the Northern States, and for many purposes in heavy mills, bridges and warehouses, the former is the better wood. On the other hand, in the construction of ordinary dwelling-houses, roofs and light work, spruce is preferable. It is light, strong, and easily worked. When spruce can be used, it is much more economically handled and framed than Southern pine. A carpenter would hardly take the gift of Southern pine for the plates, girts and posts of an ordinary frame house if he could buy spruce at present rates. Norway pine has only about two-thirds the transverse strength of spruce; sapling pine is deficient in strength in comparison with spruce, although easily worked.

The great development of Southern industries has infused new life and enterprise into the lumber manufacturing of that section. Northern capital and machinery, tram railways, improved logging, manufacturing and freighting facilities, have reduced the cost of Southern pine lumber delivered in Northern markets. Again, during the past few years, the pitch-pine business has been overdone, and many a cargo has sold at less than cost. Yet a singular fact has developed during the last year or two, and that is that in New York and Boston markets the price of large-sized spruce dimensions has reached within a very few dollars per thousand feet of wholesale rates on ordered lots of Southern pine. This shows that dealers and builders will have spruce lumber even when its cost nearly approaches that of the Southern lumber. The days of extreme low prices for spruce have gone, never to return. The demand now fully equals the supply, and timber land owners and mill men are beginning to appreciate the situation and act accordingly.—*Woodworker.*

PACIFIC COAST LUMBER.

"THOSE forests of the Alleghanies, and of the Mississippi and of Canada," the San Francisco *Commercial Herald* tells us, "can only be looked upon as thinly scattered groves of saplings when compared with the great woods of the Pacific. The only other ones that can properly be at all compared with them are those of the Amazon Valley, or they that clothe the flanks of the mighty Himalayas. The slopes, especially those having a westerly trend, of the Sierra Nevadas, of the Coast range and of the Rocky Mountains, for thirty-five degrees of latitude, or close on two thousand five hundred miles, and the country between the Coast range and the ocean, has been thickly covered with forests since the dawn of creation, so thickly, indeed, that some acres have yielded as much as two million feet board measure.

The exact area of this enormous belt of woodland may not be easily ascertained; it cannot, however, be placed at less than twenty-five miles in width, which would give it an area of 62,500 square miles. It is very hard to fix an average production of an acre, but it cannot be given at less than 50,000 feet per acre. This for the whole area given would make 2,000,000,000 feet. Reckoning this at \$5 per 1,000 feet in the log, it would be worth \$10,000,000,

000; at \$10,000,000,000, when sawn at the mill it would be worth \$20,000,000,000 at port of destination; such as San Francisco, it would sell for \$30,000,000,000. Manufactured it would be worth fully \$70,000,000,000, or nearly double the total value of all the property in the United States at the present day. The greatest part of all this belongs to the United States, being located either in California, Oregon, Washington or Alaska, though there is a great deal of it in British Columbia.

The principal descriptions of lumber that go to make this up are the pine or red fir, the red wood, the cedar and the sugar pine. The pine or red fir is found west of the Cascade range, between forty-four and fifty-two north latitude, eight degrees, or 560 miles, in length. All the country round the great basin of Puget Sound, except in a few clearings either for agriculture or made by the lumbermen, is covered with its stately growth. The red wood is king from thirty-seven to forty-two north latitude, and takes in 4,120 square miles. Great tracts are covered with trees 200 to 300 feet in height, and the red wood forest is one of the most majestic sights in the world. The cedar is found in between the red wood and the sea, from forty to forty-two degrees. The sugar pine is the most valuable timber found in the Sierras, and is present in almost inexhaustible quantity. The yellow pine of Alaska is found in extensive forests, stretching over a territory almost as large as the whole of the rest of the Pacific coast west of Nevada."

PIPE STAVES.

THE demand for heavy pipe staves for the English market is almost entirely for what is known in the New Orleans trade as the double extra or red dot. This is a stave 60 inches long, 1½ inches thick on heart edge, and 5 to 6 inches wide, free of sap.

It may be mentioned here that there are various sizes of staves known as pipes. The first is Queen's pipe, 66 inches long; New Orleans pipe, 60 inches; and New York pipe, 56. When, some years since, pipe staves were almost exclusively made in Canada and Michigan, the 66 inch stave was principally made, but after the trade got more sensible, and through want of large timber and nearness and convenience to the ocean, they got to making the 60 inch stave and the smaller one within reach of New York.

Very large timber is required to make these pipe staves. No tree under about 30 inches in diameter will do. If a small tree was cut to get a stave 1½ to 2 inches thick on the heart edge, it would make the back of the stave much thicker; the smaller the timber the thicker would be the back; and as to get a good stave it is necessary to have both edges as near even in thickness as possible, it will be seen that large timber is absolutely necessary.—*N. Y. Lumber Trade Journal.*

As an instance of the great benefit of a railway running through a section of country is to that country, we may mention the fact that taking the cities, towns, and villages through which the Canadian Pacific railway and its branches run, the values of property for assessment purposes has increased to within twenty-five millions of the whole addition to the public debt in consequence of the construction of the Canadian Pacific railway. Villages and towns which had no existence in 1881 have now an assessed value of from \$100,000 to close upon \$2,000,000, while towns like Carleton Place have increased \$194,000, and cities like Peterboro' nearly \$1,000,000.—*Montreal Gazette.*

CERTAIN kinds of lumber, notably cherry and black walnut, are rapidly disappearing from the market. The great drought, which affected the country from the gulf to the lakes last spring, caused havoc among walnut timber, but there has been no ruthless destruction of it by consumers. The demand for walnut is increasing, and must finally cause its entire disappearance. There is a fortune for some young men in the bottoms of the Missouri and Kaw. Walnut is probably the most easily cultivated of all our forest trees, and the bottoms of the Missouri and Kaw offer as great advantages as any country in the world for their cultivation. I know of walnut trees, a short distance up the Kaw, which are now from fifteen to twenty inches in diameter, and have sprung up within the last twenty-five years, so you see that they grow nearly an inch in diameter every year. Red birch, bay wood, red wood, sycamore, and any number of other woods, are now being used in imitation of walnut, and there need be no cause for alarm if it finally entirely disappears from the market. But as long as it is possible to get it, it will bring the highest prices in the market. Within the last ten years the price of walnut lumber has increased from \$25 to \$125 per 1,000 feet, and of course it will continue to advance as walnut becomes scarcer.—*Lumberman's Gazette.*

Mining.

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THE mayor of Nanaimo, B. C., says that funds are urgently needed to alleviate distress caused by the recent fearful colliery disaster. There are some thirty-nine widows and 106 children wholly destitute, beside numerous families whose support has failed.

THE Albert Manufacturing Co., at Hillsboro, N. B., are gradually increasing their business, and making purchases of plaster properties in the vicinity of their works. The calcined plaster of this company has a good reputation and they are meeting with large sales.

ANOTHER discovery of a valuable lead mine has, it is stated, been made in the township of Waltham, Pontiac county. The surrounding country is rugged and mountainous, and is reported to be rich in mineral wealth. Experts are engaged in making borings.—*Ottawa Citizen*.

THE *Brandon Sun* says: The first car load of Banff anthracite coal has reached here. It is really an excellent sample, and gives unbounded satisfaction. It will cause quite a revolution in the fuel question of the North-West. The selling price is now \$9.00, but there is no reason why it should not be sold at even less figures.

A GENTLEMAN down from the township of Waltham, county of Pontiac, says that a valuable lead mine has been discovered in that township, between Chapeau village and the mouth of Black River. The country in which the "find" has been made is very mountainous, and is believed to be rich in mineral wealth. A capitalist from Pembroke has sent experts to travel the place and report.—*Ottawa Citizen*.

It is very likely that the Menominee range will ship at least as much ore this season as the Gogebic range. The Penn Company and the Briar Hill Company will each ship at least 300,000 tons, the Lud-Chapin mine will ship over 200,000 tons and the output of the Kingston mine will be in the neighborhood of 100,000 tons. It seems quite easy for the other mines to ship 600,000 tons, making 1,500,000 tons in all, and it is not likely that the Gogebic shipments will reach that figure.—*Mining News*.

CAPT. TOBIN predicted that within two years mines will have been developed all the way from Iron River to Lake Gogebic, connecting the Menominee and Gogebic ranges. In regard to the output of the Gogebic range this year, Capt. Tobin said: "If work at the mines was pushed, and there were plenty of carriers, 2,000,000 tons of ore could be shipped. Carriers are somewhat scarce, however, and everybody is figuring on an aggregate shipment of 1,500,000 tons."—*Florence Mining News*.

THE Kingston & Pembroke Mining Company, recently organized, owns 8,000 acres of iron mining lands, extending for sixty miles along the Kingston & Pembroke Railroad. They are said to be taking out about 200 tons of ore daily, which is being shipped to Chicago and Cleveland. The ore is said to run about 60 per cent. in iron, and to show but the slightest trace of phosphorus, a fact which makes it very valuable for the manufacture of Bessemer steel. The capital stock of the company is \$5,000,000, and the organizers propose to develop the mines as soon as possible.

THE duty is taken off anthracite coal going into Canada; this will tend before long to a vastly increased trade in this variety of fuel, to the Dominion. When the duty was placed on anthracite it was done under the belief and hope that it would force consumers to use in its stead the bituminous coals of Nova Scotia. The coal sales by Nova Scotia mine owners footed up 1,373,000 tons last year, of which the United States took 60,000 tons. There were 538,000 tons sent to various places in the Province of Quebec, but none is set down for Ontario. The United States coal shippers did 900,000 tons anthracite and 1,000,000 tons of bituminous trade with the Canadian provinces, and the next fiscal year will show even larger figures.—*N. Y. Coal Trade Journal*.

A PARTY of New York capitalists passed through Kingston, Ont., a few days ago bound on an excursion up the Kingston and Pembroke railroad, which runs through what is said to be the richest iron region in Canada. The object of the party in Canada was to organize a mining company with \$5,000,000 capital to develop this mining region. It is understood that the company was organized at Kingston, and that the following officers were elected: Henry

Seibert, president; Daniel L. Gibbons, secretary; Fred S. Flower, treasurer. It is probable that the company will erect furnaces at Kingston, and the belief prevails that the new Tupper tariff will be the means of inducing capitalists to build other iron works in this region other than those here alluded to.

So many reports have been sent from Nova Scotia regarding the unhappy condition of the coal miners that the *Star* has sent a staff correspondent to the mines to make investigations and ascertain whether the development of an iron industry in their neighborhood would relieve the distress among the workmen. The question of granting sufficient protection to the iron industry will, most probably, be seriously considered by the Government before the close of the session, and as the matter will affect the whole Dominion, the letters of our correspondent will be read with interest by the business community. Although our representative will pay special attention to the Nova Scotia mines, he will also review the whole question of the development of our iron resources from a Dominion standpoint.—*Montreal Star*.

WHEN the item of fertilizers was recently under discussion at Ottawa, several members of the Opposition expressed the greatest sympathy for the condition of the farmer. Mr. Casey and others bewailed their fate, and shed tears over the fact that they were bowed down in grief over the weight of the duty. The whole matter stood out in the light of a huge farce when Mr. Hesson explained that not a single ton of artificial fertilizers had been imported into Ontario, and consequently no duty had been paid by the farmer in this direction. He pointed out on the contrary that Canada exported \$431,957 worth of phosphates for fertilizing purposes. The average Grit sympathy for the farmer is a delusion and a snare, and invariably shows up badly when the crucible is applied. What the farmer may ever succeed in getting from the Grit politician could be put on the point of a cambric needle without crowding off any resident particles.

It is stated that immense capital is to be thrown into Northern Ontario to develop iron mines there and to establish blast furnaces. It is said that Mr. Pearce, who controls the old Cobourg, Peterborough and Mamora road, is making arrangements to work the mines at Blairton, back of Cobourg. These mines were formerly operated in the interests of American blast furnaces, but the taking out of the ore was unprofitable, owing to the circumstance that the railway communication was broken, and the ore had to be carried by tramway and water as well as by rail. Mr. Pearce now owns the Cobourg railway, and he proposes to build a branch from it to Norwood and thence to Blairton. It is not yet decided where the blast furnaces will be located, but if charcoal furnaces are to be erected, they will be at the mines, and if coal is to be used they will be at Cobourg. The Blairton iron mines are in Peterborough County, about three miles from Blairton station on the Canadian Pacific, which station is 28 miles from Peterborough.

WE are pleased to be able to report the recent discovery of a valuable deposit of gold in the region of Tomogaming. When studying the nature of the rock formation in which the silver mines of Messrs. Holditch & Cockburn are located in the same region, we were convinced that additional discoveries of the precious metals would soon be made in the vicinity of Tomogaming, but we were not prepared to hear of a discovery such as that which has been reported this week. The newly-discovered mine is the property of Mr. P. A. Ferguson of Mattawa, and Mr. John Caverhill of Montreal. It is located on the shore of Lake Tomogaming, distant about 16 miles south on the Ottawa River, and embraces 195 miles of land. A careful assay has been made of various samples of ore taken from the lodes uncovered, and an average of about \$70 in gold per ton of rock has been obtained therefrom. We are informed that it is the purpose of the owners to commence mining operations in the month of June next. There can no longer be any doubt that the district of Nipissing abounds in very rich mineral deposits, which await discovery and development by our enterprising and industrious people.—*Nipissing Times*.

THE *New York Times*, in an article on the state of the finances at Washington, says that last year, up to May 20, the receipts of the Treasury were (in round numbers) \$295,000,000 while this year they are nearly \$327,000,000. Last year the expenditures were \$214,000,000; this year they are nearly \$240,000,000; but in spite of this increase of \$26,000,000 in expenditures, the excess of receipts is greater by about \$6,000,000. During the few weeks remaining of this fiscal year, ending June 30, the revenues will be carried up to \$370,000,000, and the expenditures (the amount of which is already determined) will not be more than \$266,000,000, leaving a net surplus of over \$100,000,000.

Miscellaneous.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

HENRY GEORGE'S utterances about the appalling poverty of wage-earners are weakened greatly by the fact that in the State of New York the savings banks held on Jan. 1 the sum of \$482,486,730, representing wage-earners' deposits, against \$457,050,250 on the same day the previous year.

THE publishers of Webster's Unabridged Dictionary have recently added to it a "Pronouncing Gazetteer of the World," containing over 25,000 titles, briefly describing countries, cities, towns, and natural features of every part of the Globe. It covers a hundred pages. "Webster" is acknowledged authority wherever the English language is spoken, and is an absolutely essential text book in schools, families, and all other places where correct language is desired.

THE fact of asbestos being an extremely bad conductor of heat and incombustible has been largely utilized by inventors and manufacturers already, and it is probable that its application will be much wider as the manipulation of the raw material becomes better understood. A manufacturer who has had considerable experience in connection with the business, has recently introduced an important improvement in the manufacture of sheets which seems likely to result in a stronger and more durable material without materially adding to the cost. The sheets, which may be flat, cylindrical, or of other form, are composed of superimposed slivers or fleeces of asbestos fibre. The asbestos is not pulped, as in making paper or millboard, but is passed through a carding machine, and the fleece or sliver thereby formed is deposited in even layers upon an apron or table, or is coiled upon a rotating cylinder or mandril, until a sufficient thickness is obtained. A little water or a sizing substance—preferably an incombustible substance such as a solution of silicate of soda—is uniformly applied to the asbestos at some convenient stage between its raw condition and its deposition in layers. No felting operation is employed, but a pressure regulated according to the density required is applied to the bat or piled sheet by means of a roller, or in any other convenient way. For some purposes there may be mixed with the asbestos fibre, hair, wool, mineral wool, or other fibre; also finely-divided clay, chalk, infusorial earth, or the like. The bat when dried forms a flexible, elastic material resembling felt, and is of excellent non-conducting character, whilst it is capable of easy application or removal, and may easily be made waterproof by any of several well-known processes. The flat sheet may be applied to flat surfaces and can be bended and adapted to slightly curved or irregular surfaces. The material formed on a cylinder or mandril may be cut longitudinally to facilitate its application to pipes or other cylindrical articles. The improved asbestos sheets or coverings may be used in combination with any other known kind of covering, either combustible or incombustible, according to the requirements of each application, and they may be used in numerous cases in which a non-conducting and heat-resisting material is desirable. The improved sheets make a good lining for carpets on account of their elastic character as well as on account of their heat-resisting property.



NOTICE TO CONTRACTORS

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for additions, alterations, machinery, &c., Toronto Examining Warehouse," will be received at this office until Thursday, 2nd June, for the several works required in providing boilers, machinery, &c., and in making certain additions to and alterations of the Examining Warehouse at Toronto, Ont.

Plans and specifications can be seen at the Department of Public Works, Ottawa, and at the office of D. B. Dick, Architect, Toronto O.C., on and after Tuesday, the 17th May.

Persons tendering are further notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures.

Each Tender must be accompanied by an accepted bank cheque made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party declines to enter into a contract when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted the cheque will be returned.

The Department will not be bound to accept the lowest or any tender.

By order,

A. GOBEIL, Secretary.

Department of Public Works, Ottawa, 11th May, 1887

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Want an All Contract, with full General Agents' Renewal Interest direct, with exclusive control of territory, then apply to the

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The Company will be in full operation by June 1st.

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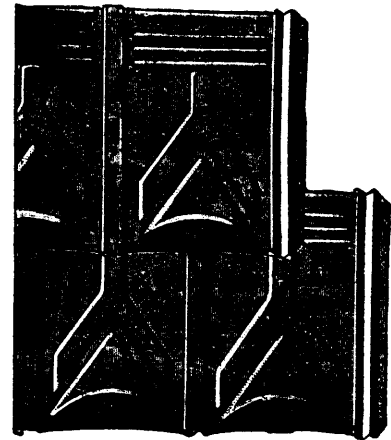
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WITH PATENT BUSHING SYSTEM

Best Belt Surface, Lightest, Strongest, Best Balanced, and Most Convenient Pulley in the World.

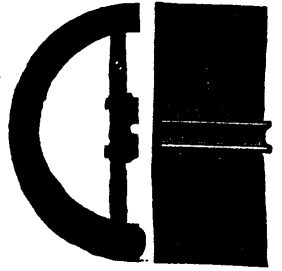
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The hole in every pulley can be readily bushed to fit any sized shaft. Bushings furnished with each pulley. Guaranteed to give from

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Strong enough for any power required. Made in any size and width, from twelve inches to sixteen feet diameter.

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We will furnish a Pulley for any service for 30 days free of charge, if it does not meet the warranty. Prices as low as any other good Pulley. Send for Catalogue, Price List & Guarantee

70 PER CENT. LIGHTER THAN CAST IRON

And 50 per cent. Lighter than Wrought Iron or Steel Pulleys.

READ THE FOLLOWING.

NORTHWESTERN MANUFACTURING & CAR COMPANY,
SHATTO & DENNIS, MINNEAPOLIS, MINN. STILLWATER, MINN., AUGUST 15, 1886.
Gentlemen: You ask why we use the Dodge Patent Pulley. I answer because we consider them the cheapest, most convenient and satisfactory in all particulars.
Yours truly, S. R. STIMSON, General Manager.

C. L. RICE, AGENT, CHICAGO, ILL. OFFICE OF NEWTON WAGON CO.,
BATAVIA, ILL., FEB. 17, 1886.
Dear Sir: Replying to your favor, will say that after using the Dodge Wood Split Pulley for a year or more we are satisfied they are a good thing, if not the best Pulley made, and shall use them hereafter in preference to any other we know of.
Yours truly, NEWTON WAGON CO.

We have sold these pulleys for one year, and they have been put to every kind of service, and their popularity is wonderful. We refer to the following users for proof of the above statements: Pillsbury & Hulbert Elevator Co., Minneapolis; R. M. Pratt & Co., Elevators; Northern Pacific Elevator Co.; The Pacific Elevator Co.; Minneapolis Harvester Works; Minneapolis School Furniture Co.; M. & St. L. R. R. Co.; Willford & Northway; Washburn, Crosby & Co.; St. Paul Electric Light Co.; St. Paul Roller Mill Co.; Minneapolis Brick Co.; N. W. Mfg. & Car Co., Stillwater, Minn., and very many others.
SHATTO & DENNIS, MINNEAPOLIS, MINN.

W. H. DODGE, PREST. THE WORLD'S INDUSTRIAL AND COTTON
DODGE MFG. CO., MISHAWAKA, IND. CENTENNIAL EXPOSITION,
NEW ORLEANS, MARCH 19, 1886.
Dear Sir: I have a number of your Patent Wood Split Pulleys in use here at the Worlds Fair and Cotton Centennial Exposition, driving Dynamos for Electric Lighting. They are doing heavy work, and are held upon the shaft by the compression of wood on iron. They hold firmly, and do not slip. I have watched with a great deal of interest the many Pulleys of your make running at this Exposition; and I think them the best Pulley I have ever seen. I believe them to possess the following points of merit over any other Pulley: All Pulleys being split or in halves; best belt surface; best shaft fastening; best method of utilizing Pulleys to shafts of different sizes; best balance; lightest on the shaft; strong; and I believe durable. I heartily recommend them.
Yours very truly, S. H. GILMAN,
Chief Consulting Engineer.

Waste of Power.

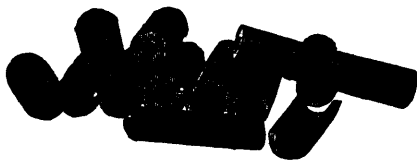
According to the best scientific authority it costs one horse power to keep in motion one ton of metal or weight; thus for every unnecessary 2,000 pounds weight on your line shaft, cost you one horse power. To maintain a horse power costs from \$25 to \$125 per year. Any manufacturer who will take the pains to investigate the unnecessary weight by Heavy Iron Pulleys, too tight belts, etc., will be surprised to find the enormous waste of power consumed in this manner. 60,000 Dodge Patent Wood Split Pulleys now in use. Our capacity being now equal to 100 Pulleys per day, we shall hereafter keep in stock for immediate shipment all sizes.

Send for Illustrated Circular and Reference List.

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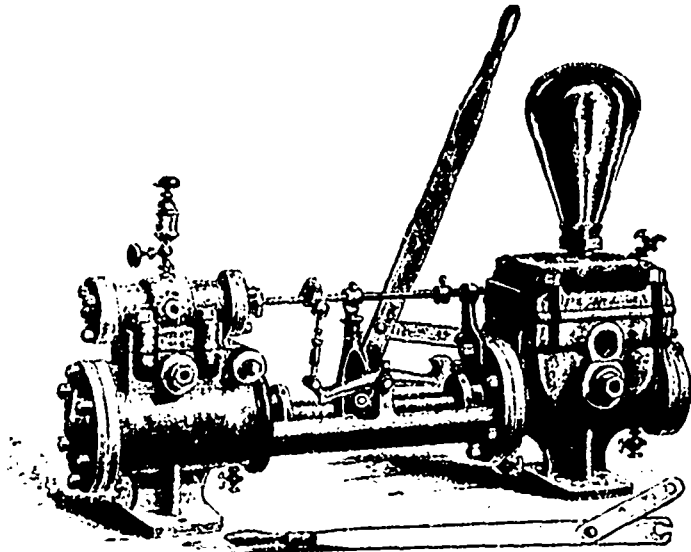
81 to 89 Adelaide Street, West, TORONTO, CANADA.

TAKE NOTICE:---Our List of Prices for the DODGE PATENT WOOD SPLIT PULLEYS is for ALL SPLIT-PULLEYS.
We beg you will note this fact when comparing our List with others which are for SOLID RIM, and NOT for Pulleys in HALVES.



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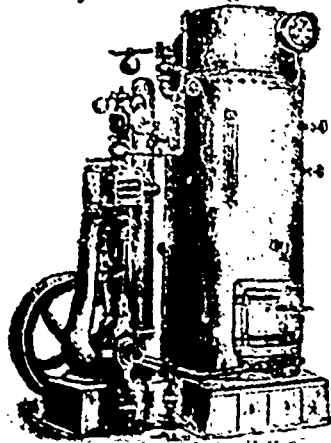
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THIS GEAR meets the demand of the Driving Public for low riding Buggies, and combines with this, lightness, durability, and great ease of motion. By the use of improved machinery and manufacturing in large quantities, we are enabled to make prices very low. Send for our descriptive circular.

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The Doty Vertical Engine and Boiler.



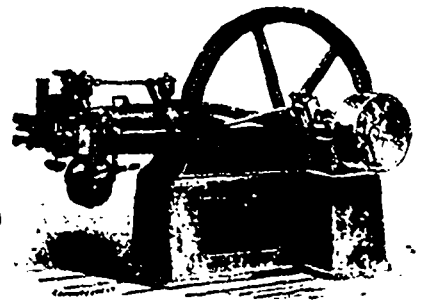
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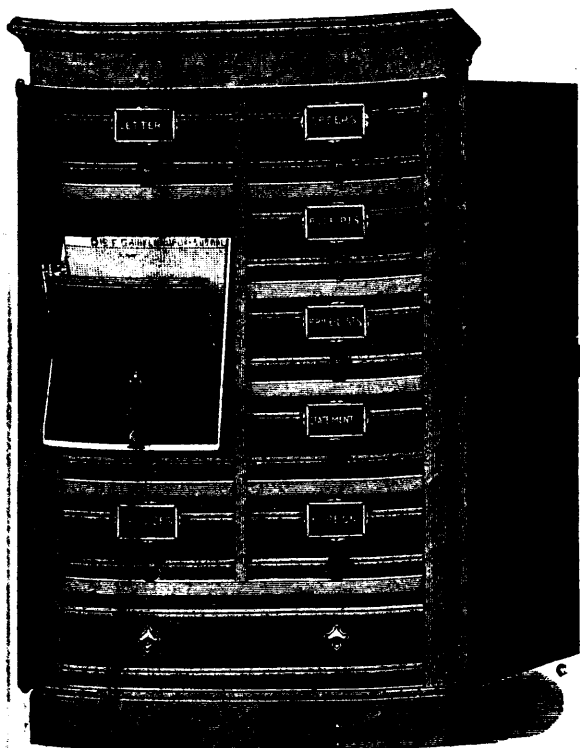
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Department of Inland Revenue.

OTTAWA, MARCH 31st, 1887.

NOTICE is hereby given to Manufacturers, Importers and Vendors of Varnishes, that under the Weights and Measures Act, 49 Vic., Chap. 104, the Sale by other than the Dominion Standard Gallon (heretofore known as the Imperial Gallon) is illegal, and that this Department has instructed its officers to enforce compliance with the terms of the law.

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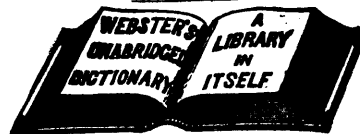
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TENDERS.

SEALED TENDERS, marked "For Mounted Police Provisions and Light Supplies," and addressed to the Honorable the President of the Privy Council, Ottawa, will be received up to noon on Monday, May 30th, 1887.

Printed forms of tenders, containing full information as to the articles and approximate quantities required, may be had on application at any of the Mounted Police Posts in the North-West, or at the office of the undersigned.

No tender will be received unless made on such printed forms.

The lowest or any tender not necessarily accepted. Each tender must be accompanied by an accepted Canadian Bank cheque for an amount equal to ten per cent. of the total value of the articles tendered for, which will be forfeited if the party declines to enter into a contract when called upon to do so, or if he fails to complete the service contracted for. If the tender be not accepted the cheque will be returned.

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FRED. WHITE,
Comptroller, N.W.M. Police.

Ottawa, March 25th, 1887.

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STEEL PLATE UNDER LOCK TO PREVENT DRILLING.

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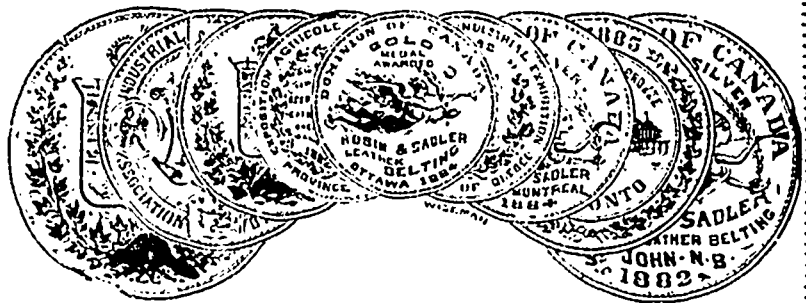
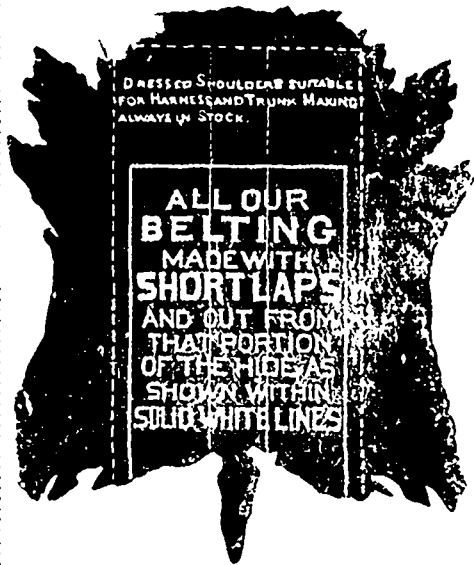
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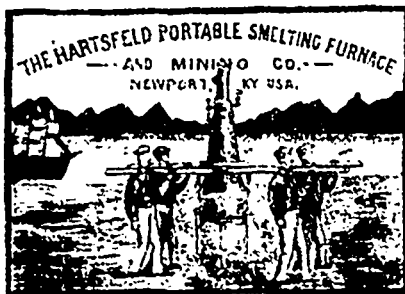
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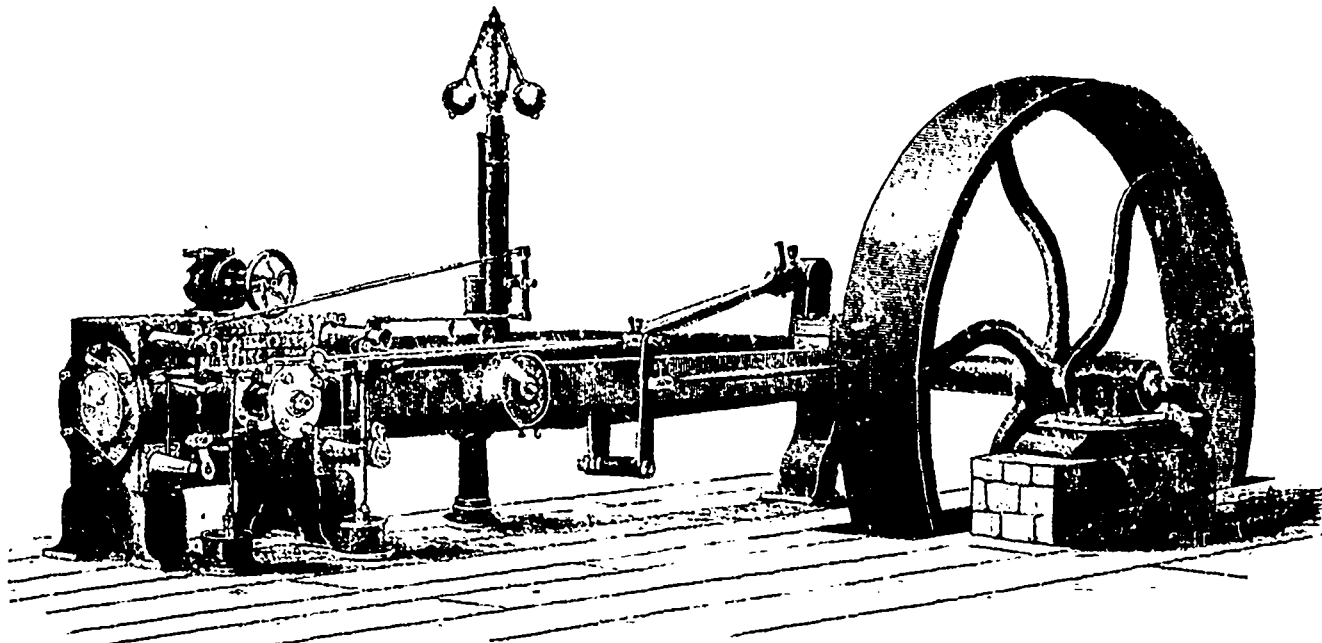
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THE HARRIS-CORLISS STEAM ENGINE

Is the most perfect Cut-off Engine made. For Economy of Fuel, Regulating of Speed, Accessibility of all its Parts, it has many Imitators, but no Equals, and is Unsurpassed.

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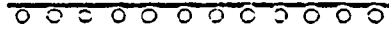
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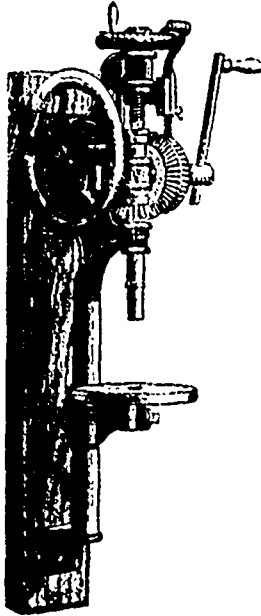
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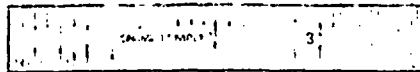
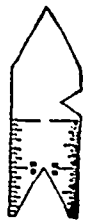
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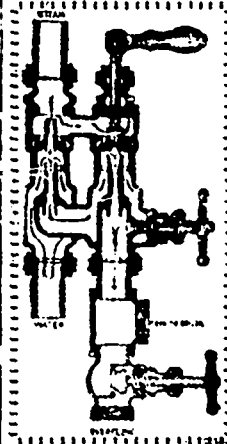
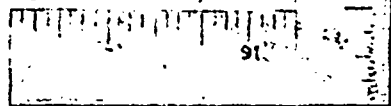
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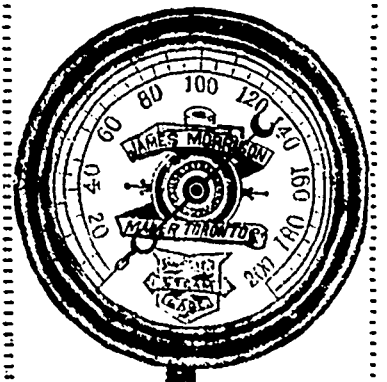
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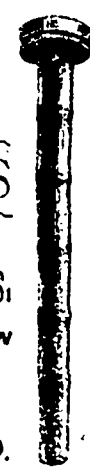
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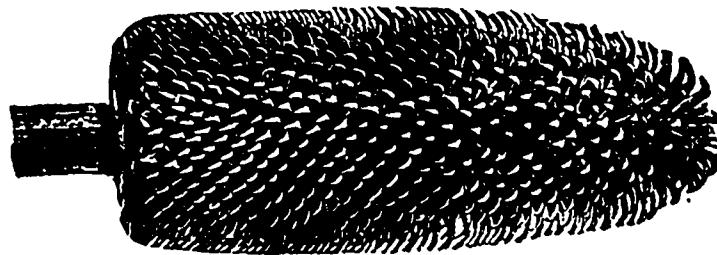
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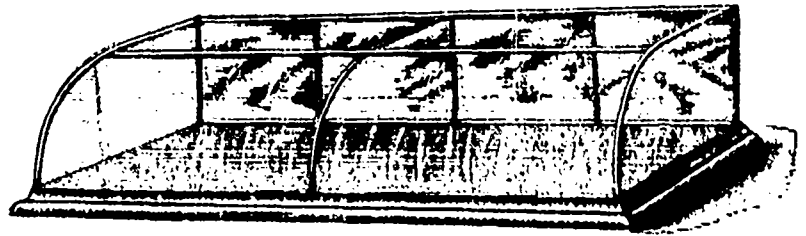
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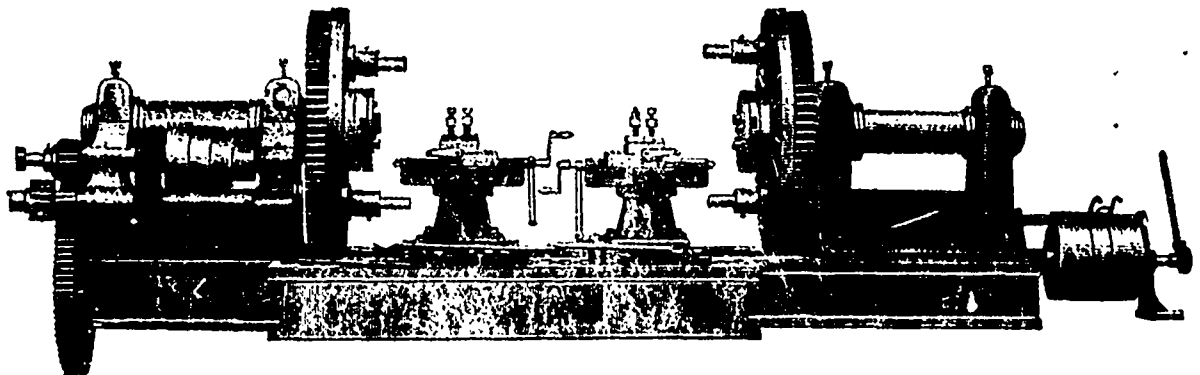
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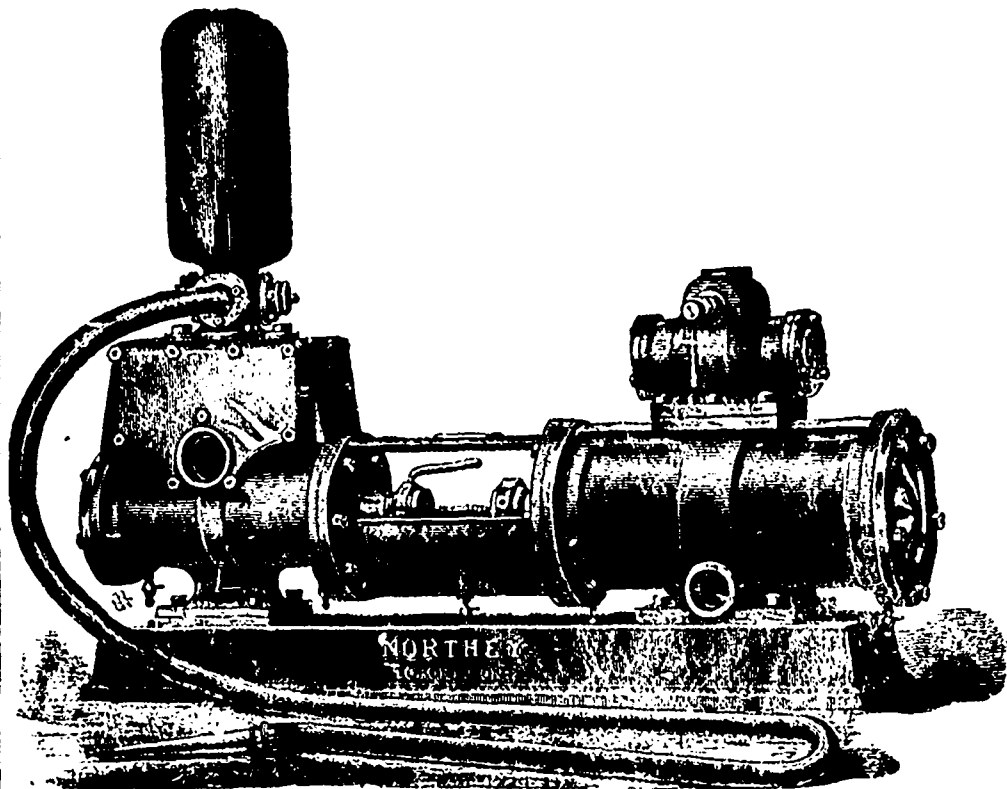
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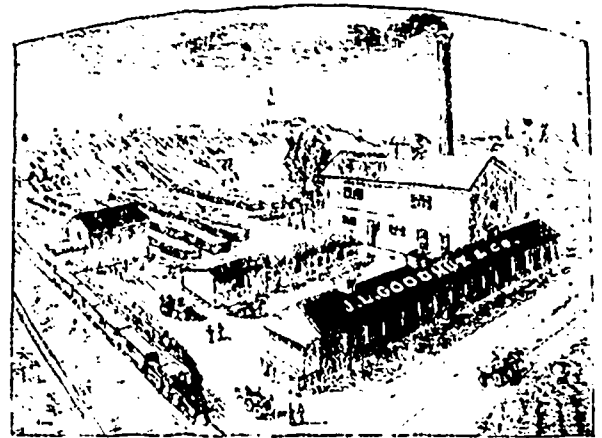
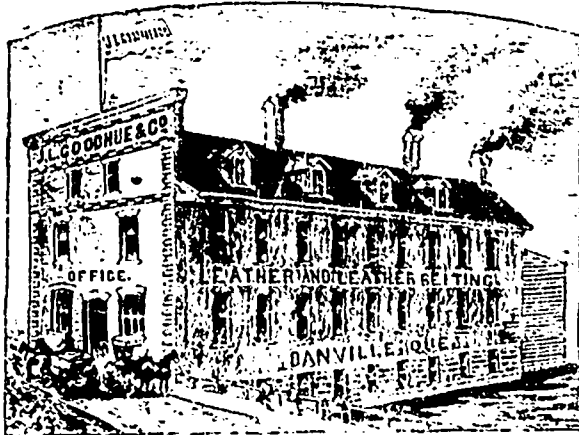
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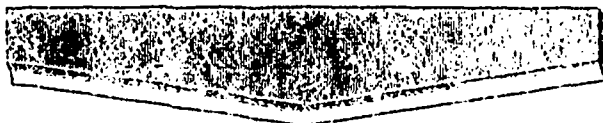
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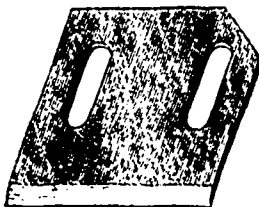
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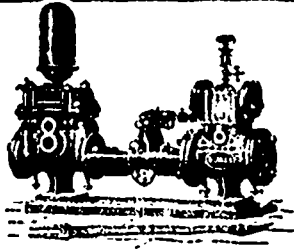
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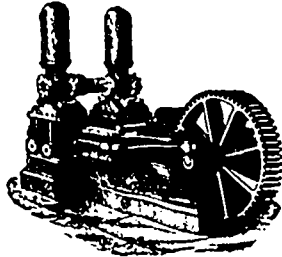
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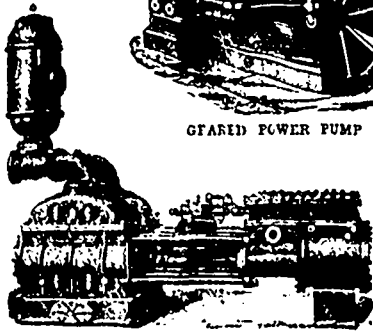
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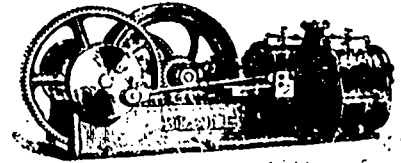
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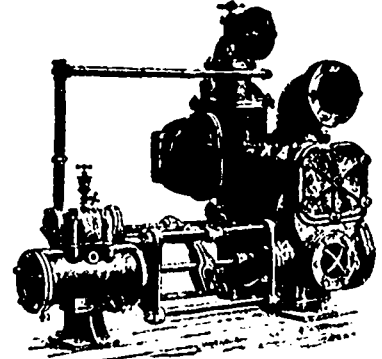
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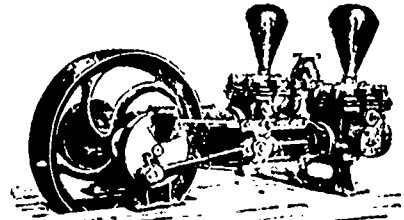
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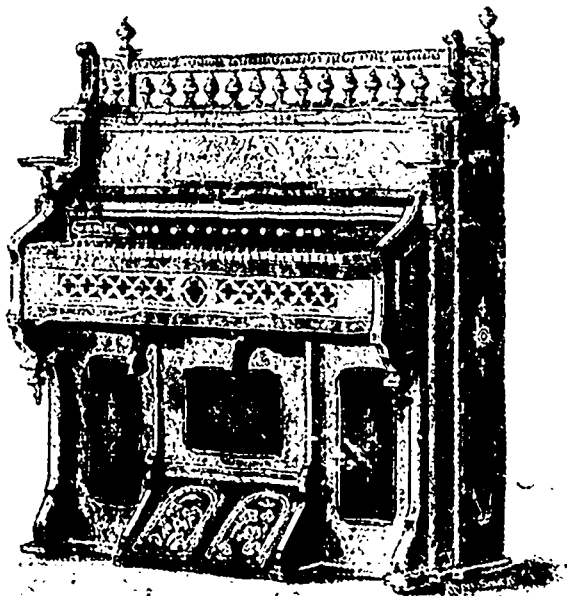


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FROM LIVERPOOL:	
Lake Winnipeg	Wednesday April 29
Lake Superior	" " 27
Lake Nepegon	" " 25
Thames	" " 23
Lake Ontario (twice)	" " 18

FROM MONTREAL:	
Lake Winnipeg	Friday May 6
Lake Superior	" " 14
Lake Nepegon	" " 20
Thames	" " 27
Lake Ontario (twice)	" " 18

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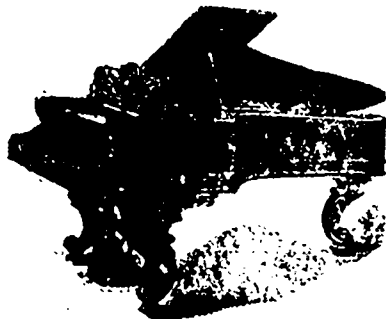
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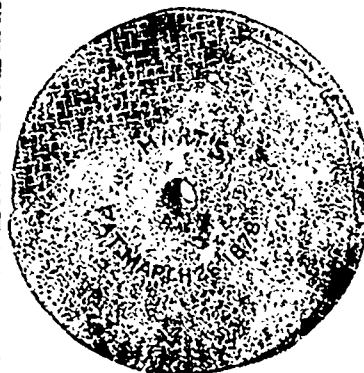
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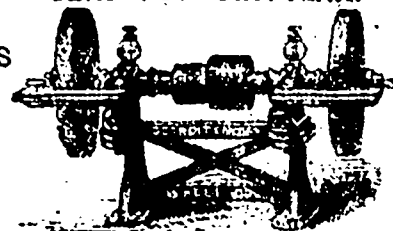
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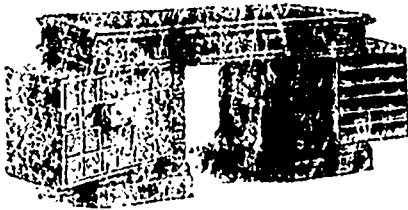
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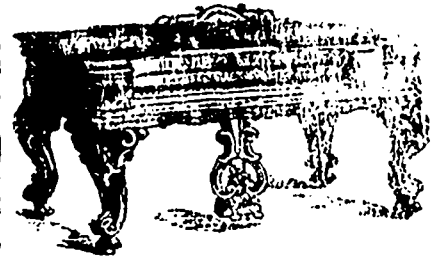
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