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# THE CANADIAN MANUFACTURER

AND INDUSTRIAL WORLD

DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

*THE RICHER IT IS*  
*THE MORE IT PROSPERS*  
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Vol. 20.

TORONTO, JUNE 19, 1891.

No. 12.

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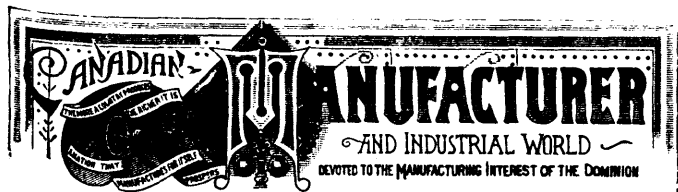
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SIR JOHN A. MACDONALD.

*Le Roi est mort: vive le Roi.* The idea intended to be conveyed by this expression is that the life of the nation is not dependent upon the life of any individual. But in the death of Sir John A. Macdonald Canada has sustained as great a loss as could befall her in the death of any man; and now all Canada is lamenting his death, while the whole world extends its sympathy.

Sir John A. Macdonald was born in Glasgow, Scotland, January 11, 1815, and was brought to Canada when but five years old, his parents settling in Kingston, Ontario. He was called to the bar, and entered actively upon the practice of his profession when he was twenty-one years old, and in 1846 he was appointed Queen's Counsel. Two years before this, in 1844, he was elected to represent the constituency of Kingston in the Canadian Parliament, and this constituency he represented continuously until 1878. His advent into the Government of Canada was on May 11, 1847, when he became a member of the Draper Administration, and it is therefore forty-seven years since he first entered Parliament, and forty-four years since he first assumed office in the Government. He first became Premier in 1857. During the forty-seven years that he served in Parliament he was a member of the Government thirty one years; and during the twenty-four years since Confederation and the formation of the Dominion of Canada he was Premier nineteen years.

Some of the more important measures enacted into laws under the Premiership of Sir John A. Macdonald were the secularization of the clergy reserves; the revision and improvement of the criminal laws; the promotion and encouragement of public instruction; the revision and consolidation of the statutes; the extension of the municipal system; the re-organization of the militia; the selection of the permanent seat of Government; the establishment of direct steam mail communication with Europe; the establishment of additional penitentiaries, criminal lunatic asylums and reformatory prisons, and providing for the inspection thereof; the providing for the internal economy of the House of Commons; the re-organization of the civil service on a permanent basis; the construction of the Intercolonial Railway; the enlargement of the canals; the enactment of a stringent election law; the ratification of the Washington treaty; the confederation of the Provinces; the extension and consolidation of the Dominion; the National Policy, and the building of the Canadian Pacific Railway.

In the confederation of the Provinces of the Dominion of Canada Sir John A. Macdonald took a leading and most active part. He was a delegate to the Charlottetown Conference in 1864, and later in the same year to the Quebec Conference, when the basis of the union was arranged. He was chairman of the London Colonial Conference when the British North America Act, forming the Dominion, was passed in the Imperial Parliament, and was the first Premier of the new Dominion. Most emphatically he was "the father of his country," and it was his privilege, as it was his wish and hope, to live to see it grow, strengthen and develop into the great and prosperous nation it is to-day.

Sir John A. Macdonald was the recipient of many honors. Queen's University, Kingston; McGill University, Montreal, and Toronto University conferred upon him the degree of LL.D. In 1865 he received the degree of D.C.L. from Oxford University. In 1867 he was created, by the Queen, a K.C.B., and in 1884 a G.C.B. In August, 1879, he was sworn in a member of Her Majesty's Most Honorable Privy Council (Imperial), a position to which he had been nominated in 1872, and he was created a Knight Grand Cross of the Royal Order of Isabel la Catolica (of Spain) in 1872. There was one honor, however, that he craved and which was bestowed upon him most willingly, most cheerfully, most lovingly. It was more precious to him and more valued than any that could be bestowed by any prince, potentate or power; an honor that no university could bestow or that grave senators could give. It was the love and confidence of the people of Canada; and upon this he could rely with certainty through all the mutations of the times in which he lived. He had reason to be proud, too, of what had been achieved for his country through his instrumentality, the greatest of these achievements being the formation of the Dominion of Canada, and the establishment of that great fiscal measure, the National Policy of tariff protection to Canadian industries, without which there would have been no keystone to the arch, no capstone to the monument marking the birth of a nation.

Nations are not born, usually, except amid scenes of war and bloodshed; and the creators of nations are, usually, the military chieftains who command armies and dictate terms.

**John Alexander Macdonald.**

**BORN JANUARY 11, 1815; DIED JUNE 6, 1891.**

Canada, however, was the child of peace and love; and the laurel wreath of fame that circled the brow of Sir John A. Macdonald was not made for a warrior, but for one who sought glory for his country amid the paths of peace.

All that is mortal of Sir John A. Macdonald lies entombed at Kingston, but his spirit lives and actuates Canadians to keep intact the great heritage he bequeathed to them, and to carry on the work in which he spent so many years of his life.

With sorrowful friends surrounding his bedside, he died at Ottawa, June 6, 1891.

#### CANADIAN MANUFACTURERS' ASSOCIATION.

WHEN it was announced that Sir John A. Macdonald was dead a circular was sent out calling a special general meeting of the Canadian Manufacturers' Association to take such action as might be thought proper upon the occasion. Pursuant to this call this meeting was held on Friday, June 11th inst., a large number of members being in attendance.

The following resolutions were moved by Mr. W. K. McNaught, seconded by Mr. Frederic Nicholls:

*Whereas*, God in His providence has removed from among us Canada's great Premier, Sir John A. Macdonald;

*Resolved*: That the Canadian Manufacturers' Association in general meeting assembled, called to take action in this matter, do hereby place on record this expression of the profound sorrow they feel at the death of so great and so good a man.

In Sir John A. Macdonald we recognize the man who made this Dominion of Canada the great and prosperous country it now is. It was his mind that conceived and his hand that brought into cohesion and permanency the isolated provinces and unorganized territories of British North America, extending from the Atlantic to the Pacific Ocean, giving to them one general government under which all fare alike, and which guarantees to every citizen equality before the law, and the utmost freedom in pursuit of happiness and prosperity.

It was his mind, too, to conceive, and his hand to guide to the fullest fruition the establishment of this Dominion, destined to become the equal of any nation in all that makes a people great.

As the chief promoter of Confederation, and as the guide of the destinies of this Dominion, almost without interruption from the time it came into existence, it was always the belief of Sir John A. Macdonald that the progress and prosperity of Canada depended upon the inauguration and maintenance of that great fiscal system known as protection to the manufacturing industries and to all the industrial pursuits of Canada against the unfair competition of other nations: and the evolution of this grand idea of his resulted in what we now know as the National Policy.

That policy, although it has been in operation but a few years, has raised Canada from the inferior position she occupied before its inauguration to a proud and glorious eminence which makes her now the admiration of all the world; and the Canadian Manufacturers' Association in paying tribute to the memory of Sir John A. Macdonald, emphasize the fact that he was always its aggressive and successful champion in the legislative halls of the nation, in the councils of its rulers, and on the hustings before the people.

At all times and under all circumstances he was an effective advocate and upholder of Canada's National Policy of Protection, and as such this Association and Canadian Manufacturers generally will always love and revere his memory.

This Association respectfully tenders to Lady Macdonald their sincere sympathy in the great loss she sustains in the death of her beloved husband. He belonged to the nation, and all Canadians share her sorrow.

That a page of the Minute Book of this Association be inscribed with the name of our Great Captain, Sir John A. Macdonald, and the dates of his birth and death.

That the officers of this Association be a committee to carry out the spirit of this resolution.

This committee include Messrs. W. K. McNaught, President; John Bertram, first Vice-president; P. W. Ellis, second Vice-president; George Booth, Treasurer; J. J. Cassidey, Secretary, and Frederic Nicholls, Chairman of Executive Committee.

The resolution will be engrossed on vellum in black, enclosed in a silver casket, suitably inscribed, and conveyed to Lady Macdonald by the committee.

#### A BROAD GENERAL PRINCIPLE.

RECENTLY the Montreal *Herald* gave vent to the following illustrious editorial paragraph:—

Protection of farmers has been a shibboleth with the Dominion Government. Now let any candid-minded person go over the whole tariff in the fairest spirit and he cannot find therein one solitary article of import taxed in such a way as to add a single dollar to the yearly revenue of the farmer. Canada does not import farm products, so that no import tax could be beneficial to the agricultural classes.

This was such a remarkably inaccurate statement that we suggested that the writer of it was "a boss idiot escaped from an asylum," and we put it in that way because we desired to deal as gently with the erring one as circumstances would permit. We then showed that last year the importations of animals and their produce into Canada were valued at \$4,907,375, and of agricultural products \$3,419,469, a total of \$8,326,844; the value of importations of living animals being \$347,978, breadstuffs \$2,997,533, green fruits \$780,325, seeds \$253,164, and vegetables \$242,763, these items alone aggregating \$4,641,763, upon which duties were collected.

Our esteemed contemporary sarcastically objects to being called names and at the same time maintains its position that "protection does not benefit the farmer." And in trying to maintain this untenable position it declares that "it is beside the question to assert that so many horses or cattle were imported into Canada in any given time;" that "a blooded horse from Kentucky may be imported," or that "the sire of some special breed of cattle may be imported," but that such facts prove nothing—that "there is no competition with the Canadian farmer in such a case." We distinctly stated that the imports of farm products enumerated were dutiable and that large duties had been paid upon them, but we made no reference to the importations of animals for the improvement of stock, which, as the *Herald* does not seem to know, are admitted into Canada free. These importations last year of horses, cattle, sheep and swine were valued at \$475,060, and in these

importations there was no competition with the Canadian farmer, as there certainly was in the importation of dutiable animals.

The contention is also made that because early fruits and vegetables, on which the consumer is required to pay a duty, are on sale in Montreal that the duty is not of the slightest value to the Canadian farmer. This is an untenable position. There are a large number of concerns in Canada engaged in canning fruits and vegetables. They give employment to large numbers of hands, mostly the wives and children of farmers, and they consume immense quantities of Canadian grown fruits and vegetables. It is true these farm products come into season later than in the United States, and it may be somewhat more expensive to produce them, but it is certain that if there were no duty upon such things Canadian consumers would not have to depend upon Canadian farmers for their supplies, but would get them from the United States. The season for getting them from there would be longer and the supplies would be cheaper; therefore it is plain that as far as raising fruits and vegetables for canning purposes is concerned the tariff is worth a great deal to the Canadian farmer.

Perhaps the most excruciatingly funny paragraph ever promulgated in a free trade journal is that in the *Herald* in which it asserts and maintains against the world that "every tax on an imported article is paid by the consumer." It lays this down as "a broad general principle," and asks this journal to wrestle with it "catch-as-catch-can." Consider us in the ring with the *Herald* on that. No protectionist ever assumed the contrary ground that all import duties are paid by the producer. Circumstances alter cases, and as a broad general principle rule. But to please our esteemed contemporary, and to agree with it in its argument, for this time we accept its broad general principle, which it maintains against the world, and ask it to assent to its own proposition that the American consumer of Canadian barley and eggs pays the thirty cents per bushel duty upon the one and the five cents per dozen duty upon the other. Of course the *Herald* won't try to back out of this proposition and go sour on its broad general principle which it maintains against the world. Perhaps not! but we rather think it will try to slip away and bury this "principle" out of sight behind the asylum wall. In this catch-as-catch-can wrestle we hope the *Herald* will stand up and take its medicine like a little man.

#### VAGARIES.

A FREE trade country like Britain readily adapts itself to and even sometimes profits by the vagaries of protectionist nations. The more they "protect" themselves the less formidable do they become in neutral markets, and the more she sells there. Her free trade gives her a favored-nation footing everywhere, and above all tends to the comfort of her people, who get their food and clothing at the lowest figure going, whilst wages are higher by a good deal than in any of the protectionist countries in Europe.—*Toronto Globe*.

It is really interesting to observe how readily free trade Britain adapts itself to and even profits by the protectionist vagaries of, say, the United States. Before a protective tariff became the established vagary of that country, Britain was acknowledged to be the greatest iron producer of the world,

and a very large proportion of all the iron and steel consumed in the United States was manufactured in Britain. When protection became the established vagary in the United States, however, Britain's trade in iron and steel with that country began to decrease; and now the important fact is presented for the consideration of free traders that the United States, under the vagary of protection, surpasses even Britain in the production of pig iron, and we believe of steel rails also.

It is not clear what the *Globe* means in speaking of "neutral markets." Perhaps it means that a "neutral market" is a country which does not produce certain lines of merchandise which it requires does not indulge in any vagary of protection, by which industries producing such merchandise are called into existence, and is therefore compelled to supply its wants from other countries. As in the case of Brazil, that neutral market country does not manufacture nor produce many lines of merchandise required at home, and heretofore the demand was supplied chiefly from Britain. Brazil is a large producer of several lines of merchandise, for the sale of which she has to depend upon the markets of the world; but while she sold to some extent to free trade Britain, strangely enough she found the United States her best customer for a very large proportion of what she had to sell of her chief products. The chief products of Brazil are sugar, molasses, coffee, and hides; and although the United States bought more of these, probably, than all the rest of the world, for many years Britain sold to Brazil more general merchandise, probably, than all other nations, including the United States. The trade between Brazil and the United States was of a very round-about character, and entirely contrary to the theory of free traders, who contend that if you buy liberally from a foreign country, you can also sell liberally to it. As we have stated, the United States bought very liberally of Brazil, but the payment had to be made by sending American products to Britain, and drawing against them in favor of Brazil.

Mr. Blaine, however, used protection, as explained in the McKinley tariff, to offset Britain's free trade and to all appearances John Bull has been badly worsted in the transaction. The *Globe* says that the more protectionist nations "protect" themselves, the less formidable they become in neutral markets, and the more free trade Britain sells there—that her free trade gives her a favored nation footing everywhere. As we have shown, Britain, until recently, sold to Brazil a very large proportion of what she had to buy; and if this favored nation footing there was to be attributed to her free trade policy, it would be exceedingly interesting to learn why it is that that trade is rapidly slipping away from her, and why it is as surely going to the United States. If free trade is such a powerful factor in international trade, why does not Britain hold on to what she has, or had with Brazil?

This change in the current of trade is easily explained. The United States is Brazil's best customer for her sugar, molasses, coffee and hides. On the other hand the United States desires to sell to Brazil a large and varied line of manufactured products, such as Brazil had been getting from Britain. Mr. Blaine held the whip handle. He suggested to Brazil that if she wanted to continue to sell her products to the United States, they would be admitted there on very favorable terms, but on condition that certain American products should

be admitted into Brazil on very favorable terms. In fact the terms on which these American products were to be admitted into Brazil were more favorable than the terms accorded Britain. There was no help for it, and Brazil yielded to Mr. Blaine's proposition for reciprocity with what grace she could.

This transaction gives the United States, with protection, a more favored nation footing with Brazil than Britain ever had and probably ever will have under her free trade policy. Mr. Blaine used the protection lever most effectually in inducing Brazil to accord special facilities to American products, but Britain has no such lever to use, and she is fast losing even the advantages she had. This adaptation to and profiting by the vagaries of such protectionist nations as the United States and Brazil, by free trade Britain, that the *Globe* speaks about, is of infinitesimal value.

### THE LOGIC OF PROTECTION.

THE Montreal *Herald* welcomes THE CANADIAN MANUFACTURER to the ranks of free traders because we advocate putting raw sugar on the free list and reducing the duty to a nominal amount on refined sugar: and it goes into hysterics because we advocate paying a bounty of, say two cents per pound upon all sugar manufactured in Canada. The violence of the hysterics is apparent when it attempts to show that this bounty to sugar producers would go into the pockets of the refiners.

The logic of protection is to encourage the production in Canada of whatever can be made here; and as to those things which cannot be made here, to make them as cheap as possible by low duties if duties must be levied for revenue, or by no duties at all if possible. There are strong reasons why the sugar duties should be removed; and there are other strong reasons why a bounty should be paid upon the production of sugar in Canada.

There never was a pound of sugar produced in Canada for commercial purposes such as is now imported for use in the refineries. The sugars imported into Canada are manufactured from cane and from beets. In the nature of things, sugar cane cannot be grown in this country, but the sugar beet can, and to as great perfection as in any other country. But the sugar beet is not grown here for sugar making, and it is not at all probable that it will be unless it is under the stimulus of a bounty as in other countries. Unlike many other industries, the business of refining sugar gives employment to comparatively few men. No Canadian industry is employed in producing sugar, therefore the removal of the duty would injure no Canadian industry. It is true large capital is invested in refineries, but the removal of the duty upon raw sugar would not affect them, if, as we suggested, a proper duty be maintained upon refined sugar, as in the United States. This duty upon refined sugar would afford protection to the refiners and enable them to keep their works in operation, the duty serving to exclude foreign refined sugar. If the Government can find a way to obtain in other directions the duties sacrificed by making sugar cheap—and that way can certainly be found—then the logic of protection demands cheap sugar. As long as the price of sugar in Canada and in the United States was about the same, in view of the necessity for the revenue

derived from it, it was well to maintain the duties; but now that they have cheap sugar in the United States there is a great incentive to smuggling, which incentive would be removed by the removal of the duty. There are several industries in Canada which will suffer great damage now that sugar is cheap in the United States unless it is made correspondingly cheap in Canada, or changes are made in the tariff granting them increased protection; and confectioners and all industries requiring the use of sugar are included in these. If these industries are not to be destroyed the Government must give them either increased protection upon their products, or make sugar cheaper than it now is.

The logic of protection, as we have said, is to encourage the production in Canada of whatever can be made here. Beet sugar can be made here; and it would require no wonderful or superhuman effort for the farmers of Canada to grow the sugar beet in quantities sufficient to produce all the sugar required in Canada. As it is, the agricultural labor of growing sugar cane and sugar beets, from which all of our sugars are made is expended by foreigners in foreign countries, and every dollar that goes to pay for them depletes the wealth of the country to that extent. But every dollar of this money would be kept at home and go to enrich our farmers and others if we raised our own sugar beets and manufactured our own sugar from them. If the payment of a bounty will ensure the establishment of this industry why not pay the bounty and have the industry? The only objectors would be such pessimists as the *Herald* and the soreheads who think with it. The farmers would not object, for it would enable them to diversify their crops, which would be very valuable, and they would receive in good hard cash the bounty that would be awarded them for the sugar produced if they were shareholders and part owners of their neighboring factories, in which their beets would be converted into sugar. The capitalists who invested in these factories would not object, for they would receive liberal remuneration for the use of their money; the employees in the factories would not object, for their employment would be certain and remunerative; the machinery builders and their skilled workmen would not object, because the establishment of the industry would open up a new field for them which would pay them well. Then by all means let us offer the bounty and establish the industry.

If the Government conclude to reduce or remove the sugar duties the loss to the treasury would have to be compensated by imposing duties upon articles now on the free list, or by increasing the duties upon articles already subject to duty. There are some Canadian products upon which export duties might and ought to be levied, among which we mention saw logs, fish caught by foreign fishermen in Canadian inland waters, and nickel ore and matte; it would be well to increase the duty upon pig iron to six or seven dollars per ton; upon wrought scrap iron to an equal amount; place steel rails upon the dutiable list, and impose the duties specified in the McKinley tariff upon most of the American manufactures coming into Canada. These changes would compensate for the loss of revenue incurred by making sugar cheap.

THE CANADIAN MANUFACTURER  
\$1.00 PER YEAR.



## WHY TWO STRINGS TO THE BOW.

THE *Empire* of yesterday approached the trade question with some degree of trepidation but ultimately warmed to its work and came to this remarkable conclusion :

"The British market absorbs nearly twice as much of the produce of the Canadian farmer as any other outside market, its capacity for doing so is unlimited, and the great fallacy of the opposition policy lies in proposing to erect a high tariff wall between it and the producer. To pay such a price as that for reciprocity with the States would be the sheerest folly."

In the last fiscal year we sent to Britain \$18,600,000 worth of animals and their produce, whilst the States took \$6,000,000 worth notwithstanding the stiff duties upon them. Our exports of agricultural products during the same period were, to Britain, \$3,670,000, to the States \$7,500,000; so that in spite of the American duties the States took fully twice as much. The contention of Liberals is not, as *The Empire* makes out, that we should cease selling to Britain, but that we should obtain free access to the States as well as to Britain, so that as the Old Man used to say the farmer may have two strings to his bow instead of one. If one is good why not another? Ministers confess the soundness of the Liberal position, which indeed is indisputable, by professing to favor the renewal of the treaty of 1854; and *The Empire* sometimes runs with them and sometimes hunts with the red parlor. Yesterday was evidently its red parlor day.—*Toronto Globe*.

Last year Canada sent to Great Britain 125 horses valued at \$17,925, or about \$143.50 each, and to the United States \$16,277 horses valued at \$1,959,355, or \$120 each. Of horned cattle we sent to Great Britain 66,965 head, valued at \$6,565,315, or \$98 each, while to the United States we sent 7,864 head, valued at \$107,391, or about \$13 each. We also sent 57,006 sheep to Great Britain, valued at \$486,299, or \$8.50 each, and to the United States 251,722 sheep, valued at \$764,217, or \$3 each. Why is it that Canadian horses, cattle and sheep are worth so much more in Great Britain than in the United States? It is quite evident that if Canada raises the desirable sort of horses for the British market they will fetch from \$40 to \$50 apiece more than can be had in selling to the United States. Heretofore, Canada has done a profitable business shipping horses for use on American street railways, but now electricity is supplanting horses as a motive power, and Canadian horses for that use are not in such strong demand. But there is a strong demand for Canadian horses in Great Britain, and it is certainly to the interest of Canadian stock raisers to accommodate their business to the trade.

Why is it that Canadian horned cattle are worth \$98 each in British markets and only \$13 each in American markets? The answer is that only the best cattle are taken for export to Britain, while the United States, being also an exporter of fat cattle to Britain, buy up whatever lean Canadian cattle there is to be had, and fatten them for the British market. Short sighted Canadian farmers sell their coarse grains, hay, etc., to the Americans, at low prices, and then sell their lean cattle to them also. These lean cattle, when exported to the United States, are fattened upon Canadian coarse grains, hay, etc., giving the enterprising Americans all the advantages in the business Canadians ought to enjoy, the difference being represented in the difference in value of cattle suitable for export to Britain—\$98 each, and those sold to Americans at \$13 each. If Canadian farmers would go more extensively into raising cattle for the British market they would save the

American duty on the lean cattle and the rough grains, hay, etc., and reap the benefit of the higher prices for the fattened cattle.

So, too, as regards sheep. It is well known that Britain affords no market for such animals as we now send to the United States. If the animals are in good condition they are worth \$8.50 for shipment to Britain, but if they are not in good condition the Americans will buy them at their own price, averaging only \$3 each. Why not cater for the British markets and get \$8.50 for fat sheep, instead of selling poor sheep to the Americans for \$3 each? Why change the fiscal policy of the country so as to have two strings to the bow, when it is so clearly to be seen that the British string is better, stronger, more enduring and more satisfactory in every way than the American string can possibly be?

## CANADA'S VALUABLE ASSETS.

THE per capita Federal debt of the United States in 1867 was \$69 and the annual per capita interest charge \$3.84. In 1867 the per capita Federal debt of the Dominion was \$23 and the net interest charge \$1.29. To-day the per capita Federal debt of the United States is under \$15 and the interest charge 52 cents, whilst our per capita is \$47 and the interest burden \$1.74. These facts, which might easily be supplemented by data drawn from the effect of our high tariff on the price of goods, form a cogent reply to the promoters of the various harum scarum enterprises now asking for help from the Dominion treasury. The cry that we have railways and canals to show for the money we have spent would be pertinent enough if the United States possessed neither; but our neighbors, whilst redeeming their debt, have by no means neglected the material development of their country. In 1889 they had 161,000 miles of railway in operation whilst we had 12,600.—*Globe*.

Nothing but dense ignorance of the facts or a deliberate desire to mislead could inspire such an argument as that above quoted and no one supposes the *Globe* to be an ignoramus. It may be that the per capita debt of the Dominion is three times that of the United States, but the *Globe* to be honest should have explained that while a very large portion of the Canadian debt was incurred in building railroads and canals, thereby making it possible for the country to advance in material greatness, the United States never invested a dollar in any such enterprises for that purpose. It lent some assistance in building the first transcontinental railroad from the Missouri River to the Pacific Ocean, but that was when the very existence and perpetuity of the Union depended upon the ability to frustrate the designs of the rebels to create a Pacific Confederacy of the States and Territories lying along that coast. The building of that road had the desired effect, but it was always in the control of a corporation, and if the United States has not yet recovered all the money it advanced for that purpose it has ample security for it. Until quite recently that country has voted large areas of public lands for the encouragement of railroad building, but it never counted these lands as assets, nor did it incur any expense further than that in building the roads thus benefited. They were all built by individual and corporate enterprise. Canada, being very differently situated, has never been in a condition to show such individual and corporate enterprise, and the Canadian Govern-

ment very properly considered that if it were desired that this country should advance in prosperity it would have to be through and by a system of railways and canals, and that these would have to be carried out by the Government; and it was and is in doing this that so much of the public debt was incurred. These public works are valuable assets, and are worth all they cost; and even if the Government should never receive a dollar of revenue from them, they would still be worth to the country much more than what they cost.

Perhaps we might have stated that the United States Government are spending some money in enlarging and extending the waterway at Sault Ste Marie, connecting Lakes Superior and Huron, but this is, we think, the only enterprise of the sort in which that Government has ever been engaged. It will be remembered that when, in a treaty between Great Britain and the United States, it was stipulated that the vessels of each country should be entitled to all the privileges of the other country as regards passing through canals, the United States promised that it would use its influence with the State of New York to allow Canadian vessels to pass through the Erie Canal on the same terms as American vessels; but until this day that privilege has never been accorded Canadian vessels.

It would be exceedingly interesting if the *Globe* would indicate how many of the 161,000 miles of railroads in the United States are under the control of the Government of that country, and which, if any, of the canals there. And still the *Globe* seeks to create the impression that the United States Government, while redeeming their national debt, had by no means neglected the material development of their country in building railways and canals.

DRASTIC METHODS.

An official order has been issued at Washington, subjecting Canadian sheep and hogs to a quarantine of fifteen days. It is not pretended that there is any disease among these animals in Canada; but it is alleged that as Canada does not guard against the importation of diseased pigs and sheep by quarantine, there is a danger against which it behooves the United States to guard. If we adopted the precaution, the absence of which is made the ground of the Washington order, we could not exclude from the restriction the United States, which would then be liable to strike back in kind. The United States has been complaining of similar restrictions against itself by Germany and France, and now it does its best to justify their action. The Washington order will give rise to the suspicion that its object is coercion, and the effect on Canada will be precisely the opposite of that which, on this theory, it is desired to effect. If there were any real ground for alarm, on the score of the existence of sheep and swine disease in Canada, the action of the Washington Government would be in direct line with that of several European governments, and would find full justification in the facts. But in the absence of such diseases, the ground of the restriction wears very much the appearance of an ingenious pretext.—*Monetary Times*.

The importation of sheep into Canada in 1890 was :

From Great Britain .....	78 head.
“ United States .....	48,844 “
Total .....	48,922 “

The importation of live hogs was as follows :

From Great Britain (into British Columbia) ..	20 head.
“ United States .....	82,964 “
Total .....	82,984 “

The exports of sheep from Canada in 1890 were :

To Great Britain .....	57,006 head.
“ United States .....	251,640 “

This out of a total of 316,013 head.

Our total exports of live hogs amounted to but 670 head, of which 422 head went to the United States.

If Canada were in any danger of sheep or hog infection from abroad, it could only come from the United States, for there were but seventy-eight sheep, and twenty hogs imported into the country last year from other than the United States, the seventy-eight sheep going into Quebec, from Great Britain, for breeding purposes, and the twenty hogs going into British Columbia were also from Great Britain, probably the surplus store of provisions of ships going to the Pacific coast for cargoes. It is very evident that the United States Government are not satisfied with even the McKinley tariff, that imposes such high duties upon Canadian sheep and hogs, but seeks to still tighten the screws upon Canada by restricting almost to prohibition the importation of these animals.

Surely the methods being used to force annexation are of a most drastic kind.

AMERICAN MANUFACTURERS OF TIN GOODS.

The Buffalo *Courier* publishes an interview with Mr. Ehle, a manufacturer of patented dinner pails in that city, who has been obliged to start a factory in Canada to supply his export trade. The *Courier* summarizes the points of its interview as follows :

1. The Buffalo manufacturers have been compelled to start a factory in Canada to supply their export trade.
2. At the Canada works they can turn out the finished product for what the tin costs here.
3. Wages have not been advanced, but the cost of living has.
4. That American tin-plate is not in the market and the manufacturers cannot get it.
5. That imported tin-plate which costs \$3 62 a box in Canada costs \$6 here
6. That the increased cost of tin has ruined the manufacturer's export trade, and thus made it impossible for him to pay higher wages.
7. That tin pails can be made in Canada and imported into this country, paying 50 per cent. duty as manufactured product, for 15 per cent. less than they can be made here.
8. That the rebate of duty on exported goods is of no value to any but a few of the largest manufacturers, because it costs more to collect it than it comes to.
9. That other American manufacturers are intending to remove to Canada.

What a deal of skumble-skamble stuff about “rebates,” “tin ! tin ! American tin !” and mythical “factories” springing up all over the country is dissipated in the light of this Buffalo announcement !—*Philadelphia Record*.

Of course Canada is glad to have Mr. Ehle migrate from Buffalo to this side the line, and we would be glad to welcome a thousand other American manufacturers to Canada; but we cannot accept the reasons given by the *Record* and the *Courier* as impelling the migration. Under the McKinley tariff the increased duty upon tin plates does not go into effect until July 1st; and there is now no more restriction upon the importation of tin plates into the United States than there has been for years. In the United States in the manufacture of articles for export, where imported raw materials are used, the manufacturers are allowed a rebate of 90 per cent. of the duty paid

upon the imported materials. Thus if Mr. Ehle has a foreign trade in goods manufactured of imported tin plates he is entitled to a return from the American Government of 90 per cent. of the duties he may have paid upon his imports of foreign tin plates. In other words as a manufacturer of goods for export from imported tin plates, he really pays but one tenth the duty which he would otherwise have to pay if they were for home consumption; and if he migrates to Canada because of the high American duty, it will be to save one tenth the American duty upon tin plates, which after July 1st next will be  $2\frac{2}{10}$  cents per pound. Under these circumstances then it would be impossible for Mr. Ehle to turn out his finished products in Canada for what the tin plates would cost him in the United States.

In many respects the Philadelphia *Record* resembles the Toronto *Globe* in denouncing the policy of protection. They would rather see their country go to the demnition bow wows under free trade than to prosper under protection; and all this skimble-skamble stuff the *Record* gets off is the veriest nonsense.

#### EDITORIAL NOTES.

THE Nova Scotia Steel and Forge Company, New Glasgow, N.S., recently forged a new stern frame for a 5,000 ton French steamer, arrived at Halifax a few weeks ago in distress. This is a heavy forging, and indicates the character of work that may be done at this establishment. These works are now prepared to forge steam boat shafts up to 18 inches diameter and 22 feet long.

THE value of nickel produced from Canadian mines last year was \$1,230,180 realized from 1,640,240 pounds of metal. This shows a greater value than any other metal, gold coming next valued at \$1,166,227. Of the mineral products of the country coal stands far ahead of everything else, the value being \$6,396,910, or one third of the value of all products taken from the earth.

A TELEGRAM from London, Eng., states that owing to the decreased demand from America forty-three Welsh tin plate works will shut down during the whole of July, locking out 26,000 men. It is feared the stoppage will extend beyond July. A mass meeting was to be held in Swansea to protest against the lockout. Free Traders may belittle the effects of a tariff upon nations other than that imposing it, but the McKinley tariff seems to be striking the Welsh tin plate makers very hard at this time.

A TELEGRAM from Pittsburgh, Penn., a few days ago stated that Andrew Carnegie, the great iron and steel manufacturer of that place, had contracted with the United States Government to supply nickel steel to the value of \$5,000,000 for the American war ships now being built. It was also stated that the nickel would be obtained from the Sudbury mines. This emphasizes what we have repeatedly said that Canada has the nickel from which the chief supplies of the world must be drawn, and that to profit by it an export duty should be levied upon all nickel ore and matte taken out of the country.

THE Toronto *Globe* says that "if Scotland were divorced

commercially from England atrophy and paralysis would fall upon each; and who are we that we should hope to escape like effects from a similar cause?" This "similar cause" the *Globe* explains to be Canada's objection to unrestricted reciprocity with the United States. We would like to know why the commercial divorcement of Scotland and England would produce atrophy and paralysis to either of them. Both countries produce substantially the same things, and each seems fairly prosperous independently of the other.

THE New York *Engineering and Mining Journal* says "the price for nickel in small quantities is regulated by the general position of the European market, and is also somewhat dependent upon the stocks" in New York. At present stocks are very light here, "and the metal is selling in small lots at from 67½c. to 70c. With the increasing demand for nickel during the past two years for the manufacture of cartridges by European governments, German silver, nickel-plating and the manufacture of ferro nickel, although the last has not yet assumed great proportions, the consumption of nickel has undoubtedly increased considerably, and the supply is said by importers to be unequal to the demand in this country.

ITALIAN manufacturers are placing large orders with the makers of textile machinery of all kinds necessary for spinning, weaving and dyeing purposes. The returns of the Italian foreign trade of 1890 show a decrease in the imports of cotton goods, and an increase in the imports of raw cotton, due to greater activity in Italian mills and factories. A continuous decline in the importation of silk goods and in the exportation of raw silk also shows an increasing domestic silk business.—Manchester, Eng., *Textile Recorder*.

Protection does it. And yet Britain sees her supremacy as a manufacturing country slipping away from her, without the ability, under free trade, to help herself.

THE CANADIAN MANUFACTURER is a remarkable paper at times. In its last issue it asks in all seriousness how free traders in Canada can complain of the exodus of population from this protected country when the returns show that there is a far larger exodus from free trade Britain.—*Globe*.

THE CANADIAN MANUFACTURER said no such thing. The *Globe* had argued to the effect that protection was driving Canadians away from Canada, and our enquiry was that if this were a fact, then free trade was driving Englishmen away from England. We distinctly deny, however, that protection is driving people out of this country. It is attracting them to it.

THE last official act of Sir John Macdonald's Cabinet, now dissolved by his death, was to pass an Order-in-Council dealing with the matter of quarantine of sheep and swine arriving from Europe, a period of fifteen days' quarantine being now established in conformity with the United States regulation. It will be remembered that a few weeks ago the United States enacted quarantine of fifteen days against sheep and swine from Canada, on the allegation that there was no safeguard against the importation of disease from Europe via the Dominion. The Minister of Agriculture at once took up the matter, which was one of vast importance, especially to Ontario farmers, and on his report this Order-in-Council was passed.

WE learn that a deputation of manufacturers and others especially interested in the iron trade, is on its way to Ottawa to ask for a repeal of the duties on pig iron, or else an increase

of the duties on certain kinds of iron manufactures. It appears that some kinds of hollow-ware—steam radiator fixtures for example—are being sent into Canada by United States makers cheaper, even with the present duty imposed upon them, than Canadian factories can turn them out. And it has been the case for some time that malleable iron merchandise of certain kinds has been sent in by American makers in the teeth of the duty, all of which means that the present demand is for a prohibitive duty.—*Monetary Times*.

Oh! no, not a prohibitive duty, but a protective duty; a duty for protection that protects. Under-valuation of imports is destroying domestic industries.

THE issue of the *Dominion Illustrated* for the 20th inst. will be devoted almost exclusively to an account, with full illustrations, of the event which is in all men's minds, the funeral of the dead Premier, Sir John A. Macdonald. No such outburst of popular sorrow over the death of any man has ever been evoked in Canada, as that which pays tribute to the greatness of the deceased statesman. The *Dominion Illustrated* sent its own photographers and artists to Ottawa and Kingston, and the number to be issued on the 20th inst. will be a memorial worthy of the occasion, and one that throughout Canada will be preserved as a sad souvenir of the man whose death has left so great a void in the hearts of the people as well as in the public life of the country he has served so long and so devotedly.

OVER \$60,000,000 in gold has been sent to Europe from the United States since January 1st last. A good deal of this money represents interest on British capital invested in United States mines and manufactures. British capitalists would gladly invest in Canada but our stupid trade policy restricts the markets for products, and they prefer to place their money over the border. Canada needs a change.—London, Ont., *Advertiser*.

Correct you are. Canada does indeed need a change—a change on the part of the *Advertiser* and other Grit papers and Grit politicians. They should change from so continually running down and depreciating Canada. But how ridiculous to intimate that British capitalists are prevented from investing their money in Canada because of our tariff, while they invest in the United States where the tariff is 50 per cent. higher than ours. Canada does indeed need a change in the direction suggested.

THE issue in Canada is between protection and dry rot on one hand, and continental free trade on the other.—*Mr. Charlton*.

The mistake here is in assuming that any form of rot, dry or otherwise, is eating into the vitals of our national constitution.—*London Free Press*.

None are so blind as those who will not see. They are actually more to be pitied than those who cannot see.—*Montreal Herald*.

If Mr. Charlton considers the issue in Canada to be between protection and dry rot on one hand and continental free trade on the other, why don't he return to whence he came and enjoy continental free trade instead of remaining in Canada praying for what will never occur. The greatest "rot" observable in Canada is such as Mr. Charlton expectorates upon a patient and long suffering people. The weather is now fine for travelling and the roads are in good condition.

AN examination of the monthly statements of imports and exports, prepared by the Customs Department during the past ten months, and a comparison with the corresponding period last year, shows where the falling off in the imports and the increase in exports has been brought about. Of course, the importations of certain classes of goods have increased to a considerable extent, but there have been some large decreases. The importation of woollens has fallen off to the extent of \$1,100,000; manufactures of iron and steel, \$750,000; provisions, \$700,000; silks, \$400,000, and spirits, \$100,000. In regard to the exports there are some noticeable increases. Products of the mine make a better showing than last year to the extent of \$900,000; fisheries increased \$740,000; animals and their products, \$700,000; agricultural produce, \$1,250,000; manufactures, \$450,000. There are two large items of decreases forest products, \$2,000,000, due to the stagnation in the lumber and timber trades, and coin and bullion, \$1,600,000.

*The Miner*, published in British Columbia, and whose mission is implied in its name, urges that the duty on pig lead should be raised to \$30 a ton; on lead bars, blocks and sheets, \$50, and a uniform duty of 30 per cent. on all lead products. A duty of \$30 a ton is imposed by the United States Government on the lead product of Canadian smelters, so that it cannot be profitably shipped there nor to England, where the price is depressed—hence separators must be set up in Canada. At present Canada consumes thousands of tons of lead annually, the product of the mines of the United States and Spain. The *Miner* claims that if its proposal is acted upon "the mines of British Columbia will alone support a hundred thousand people and produce every dollar's worth of crude and manufactured lead used in the Dominion."—*Toronto World*.

The Canadian duty upon old scrap and pig lead is forty cents per hundred pounds, or \$8 per ton. The value of all such lead imported into Canada last year was \$283,096, of which \$275,661 was from Great Britain. Canada exported no lead last year, and only four tons of lead ore, valued at \$2,000, and, judging from the value thereof, this ore must have been of a highly argentiferous character.

THE imports of cement into Canada last year were as follows:

Hydraulic, 5,540 barrels, valued at.....	\$9,048
Portland, 192,322 " " .....	313,572
Totals, 197,762 .....	\$322,620

The duty upon which was \$79,004 or 40 cents per barrel.

According to a preliminary summary of the production of metals and minerals in the Dominion for the year 1890, recently issued by the Government, the production of cement in Canada last year amounted to 102,216 barrels, valued at \$92,404. These figures show that the value of imported cement was \$1.63 per barrel, and of domestic cement 90 cents per barrel. About 135,000 barrels of this imported cement came from Great Britain, nearly all the balance coming from the United States. It has never been successfully urged that Canadian made cement is not as good in all respects as any imported, but old prejudices and an inadequate tariff prevents the extensive development of the home industry. The American duty upon cement is eight cents per one hundred pounds including weight of barrel or package.

THIS Journal suggested that the Dominion Government offer a bounty upon all sugar manufactured in Canada, and the

Montreal *Herald* asks "Why single out pig iron and sugar as special pets for government favors? If the bounty system is to become part and parcel of the fiscal policy of Canada where is the line to be drawn?" Give us something more difficult to answer. This journal is not exceedingly favorable to the payment of a duty upon pig iron, holding that the duty should be high enough to give proper encouragement to the industry without the bounty. About \$7 per ton duty would be an elegant and most becoming figure, and under it we would manufacture our iron instead of importing it. Why we advocate the payment of a bounty on beet sugar is explained in another article. As to where the line is to be drawn if the bounty system is to become part of the fiscal policy of Canada, we would say that it should be drawn now at beet sugar, subject to change on short notice whenever Canada would be benefited by the change. But at present we want to see raw sugar on the free list, a duty of \$7 per ton on pig iron, and a bounty of two cents per pound on home made sugar.

MR. ABBOTT will no doubt do his best for the protected manufacturers, but he and they may as well make up their minds to face the inevitable. The long struggle against nature has exhausted the country. There is nothing for it but to succumb to her decrees—to fight with her instead of against her, to let commerce be free from the St. Lawrence to the Rio Grande.—*Toronto Globe*.

What, pray, constitutes the "long struggle against nature," and wherein is Canada "exhausted?" Canada is not exhausted, nor will she ever be as long as she maintains the policy she now observes, and which is leading her day by day to greater riches, greater importance, greater happiness of her people. But why talk about commerce being free "from the St. Lawrence to the Rio Grande?" Why look so longingly in that direction? Our American friends have told us time and again that the only way by which Canada can obtain free commerce from the St. Lawrence to the Rio Grande is by annexation. Is this what the *Globe* desires? Is fighting for Canadian autonomy fighting "against nature?" Considering the method our American friends have adopted to force Canada into annexation, it would be well for Canada to adopt the American tariff, not against the rest of the world, but against the United States.

WHOEVER is interested in the growth of American trade abroad may well heed what our Consul at Kingston has to say about the trade of Jamaica. That country imports annually \$8,000,000 worth of goods, but instead of buying them in the nearest market—the United States—they are bought chiefly in Canada and in Europe. "It is much easier to sell the goods that the people want," writes the Consul, "than to educate them to take what the importer may have on hand, and it is easier for him to change patterns than to alter a people's ideas of what they want. People here call for a high grade of goods as a general thing, and are willing to pay for them if they are made in the styles they like. Buggies and carriages manufactured for the Western trade cannot be sent to Jamaica. If carriage manufacturers of the United States want Jamaican trade, they must first find out what styles are wanted here, and what goods will sell best." Our former sales of carriages to Jamaica have fallen off lately, because (1) the American firms making the best grades do not make the styles wanted there, and (2) most of the carriages sent to Jamaica have gone through commission houses, and have been of a grade that no

manufacturer would care to place his name upon.—*New York Hardware*.

This is the sort of "reciprocity" that the annexationists want. The American manufacturers who make goods upon which no reputable maker would place his name, want Canada as a dumping ground for their trash. They want to foist upon Canada such stuff as Jamaican negroes refuse to buy.

SPEAKING of the collapse of the Connellsville coke strike, by which 14,000 men had been idle since early in February, and the effect the resumption of work in that industry would have upon iron making in the Pittsburgh district, the *Philadelphia Bulletin* says:

The extent of the revival of activity in the coke region will be dependent somewhat on the action which will now be taken by the furnacemen in the Shenango and Mahoning valleys, and this again will depend largely on the price at which coke will be sold and on the freight rates which will be charged for transporting it. Southern competition absolutely compels the furnacemen in the two valleys mentioned to make pig iron in the future cheaper than in the past or blow out their furnaces permanently.

And yet the American duty upon pig iron is \$6 per ton, which fact, together with the fact that southern competition is forcing cheaper production than ever before shows what protection is worth to American iron consumers. The Canadian duty upon pig iron is only \$4 per ton, and this low rate and the constant threat of the Opposition to remove it altogether if they ever obtain the power to do so, effectually prevents the development of the home industry, and a very large proportion of the pig iron consumed in Canada is imported. Last year the importations of pig iron aggregated 87,613 tons, of which 23,170 tons came from the United States, where the duty is \$6 per ton. If Canada is to have a blast furnace industry commensurate with the domestic demand for pig iron, the duty must be placed high enough to encourage it.

IMMEDIATELY after the burial of Sir John A. Macdonald it was known that Governor-General Stanley had asked Hon. J. J. C. Abbott to reform the Dominion Government. Upon the announcement of the death of Sir John, Parliament adjourned to re-assemble on June 16th. On the re-assembling on that day, Sir Hector Langevin, on the orders of the day being reached, arose and said: "Before the orders of the day are called I wish to read to the House a statement which has been presented to me by the Hon. Mr. Abbott, member of the Privy Council for Canada, which is as follows:

"Having obtained the requisite permission from His Excellency, I desire to make a statement of proceedings. After the death of the late the Right Hon. Sir John Macdonald it was felt by His Excellency that the state of public affairs did not necessitate the formation of a new Cabinet until the grave had closed over the late Premier and the last honors had been paid him. On the morning following the funeral His Excellency, exercising his constitutional right, applied to the Hon. Sir John Thompson for his advice with respect to the steps which should be taken for the formation of a new Government. Later, on the same day, by Sir John Thompson's advice, I was myself summoned by His Excellency, and, after consideration, I accepted on the following day the duty which His Excellency desired me to assume. I, therefore, communicated with my colleagues, and requested their consent to remain in their respective offices, and with their assent submitted to His Excellency my recommendation that they should be continued in

the positions, which His Excellency was pleased to approve, and he also sanctioned my assuming the departmental office of President of the Council. The vacancy caused by the lamented death of the late Right Hon. Sir John Macdonald has not been filled, and pending the appointment of a successor the affairs of the Department of Railways will be administered by a member of the Cabinet."

READERS of the Toronto *Globe* observe that while the editorials thereof are always of the most pessimistic character, the object being to impress the reader that under our present government the country is on the brink of ruin, in the news department and reviews of trade the facts show a very different state of affairs. Thus in a recent issue speaking of some remarkable features of the bank statement of June 4th, which was a crucial day in the dry goods trade, the statement is made that the occasion was "the most satisfactory experienced for years," that "it is generally thought that if 75 per cent. of the dry goods paper is taken up on that date that the result is fairly satisfactory; but this season not only 75 per cent., but 95 per cent. was the experience." "This improvement," the *Globe* says "has doubtless been brought about by the persistent weeding out of poor traders during the past year or two. The movement of trade generally has been fairly satisfactory, and the outlook is certainly more hopeful and brighter." No doubt this is the exact situation in Canada. Speaking of the crops and the grain markets we are told that "the growing wheat looks well"; and that "in Ontario wheat appears to be altogether too high to meet the views of millers, who declare that they cannot profitably make flour for export at present prices for wheat." This is certainly encouraging to the farmers. The facts which the *Globe* gives regarding large bank deposits are very encouraging. It says: "At the end of April the public deposits in our banks amounted to \$138,420,634, or an increase for the month of \$2,361,264, and an increase for the year of \$13,082,964—over \$1,000,000 a month." This is certainly an indication of great prosperity.

MR J. OBALSKI, Government mining engineer of the Province of Quebec, reports that its iron ores are very good and abundant, but that although this fact has been known from the earliest times of French colonisation, and although efforts at mining have been made periodically since 1737, yet the ores are worked only to a small extent; "there are only two establishments in operation, smelting the bog ore with charcoal; the Radnor forges, with one blast furnace, on the River au Lard, thirty miles north of Three Rivers, and those of Drummondville, with two blast furnaces, on the left bank of the River St Francis." The engineer attributes the meagreness of this result to the absence of mineral fuel and the low import duties on foreign irons. In another place, however, he says that the import duty and bonus together give a protection of \$5 per net ton of 2,000 pounds, or \$5.60 per net ton; and that the price of the best ore delivered at the furnace is \$8 per ton. A protection equivalent to \$5 or \$5.60 on \$8 worth of ore seems to be pretty favorable treatment. The want of mineral fuel is no doubt a drawback; so is the want of a market. The engineer says that the best way to develop our iron mines would be to export it to the United States.—*Globe*.

There is any amount of stupidity about the *Globe's* comments upon Mr. Obalski's report. The facts that the bounty upon Canadian made pig iron—\$1 a ton—and the duty of \$4 per ton upon imported iron gives a protection of \$5 per ton upon iron, and that the price of the best ore delivered at the furnace

alluded to is \$8 per ton certainly do not imply that there is any protection whatever upon ore, as the *Globe* says. The expression "The engineer says that the best way to develop our iron mines would be to export it to the United States," suggests the fumes of whisky. How could our iron mines be exported to the United States? The *Globe* should sober up before again attempting to discuss this question.

THE promoters of unrestricted reciprocity must feel somewhat disgusted in finding almost daily evidence that the facts connected with the trade of the Dominion are directly opposed to all their theories. They insist that free trade with the United States is absolutely indispensable to the prosperity of the mining and fishing industries of the Maritime Provinces. At the late general election those industries declared by overwhelming majorities, that they prefer their position under the N.P. It is to be assumed that those engaged in mining and fishing understand their interests better than Ontario scribblers and spouters, few of whom have had a single day's practical experience in business. They have also undertaken to prescribe for Manitoba and the other western provinces, which they allege are suffering by being excluded from United States markets for the sale of their products and the purchase of agricultural implements, etc. The course of trade for the past year has shown that our North-West farmers have found much better markets for their wheat, oats, etc, than Minnesota and Dakota farmers have found in Minneapolis or Chicago. The *Globe* of 15th inst, furnishes a complete and unquestionable refutation of its constant argument as to the relative cheapness of implements. In an item headed "Uncle Sam harrassed by Smugglers," it reports that Special Treasury agent Zochgen finds that the United States revenue agents are "totally inadequate to cope with the shrewd Canadian traders, who easily smuggle Canadian and other foreign goods across the border." "In addition to potatoes, agricultural implements are brought across the line in great quantities." Funny, is it not? The high-priced Canadian implements are being actually smuggled into the country of cheap implements.

THAT the manufacturers of the United States are particularly anxious to cultivate trade with Canada in certain lines, is evident from the information which falls into the hands of the Customs Department from time to time, as to the inducements which the Americans hold out to their Canadian customers. For instance, the combination of sewer pipe manufacturers, under the name of the American Sewer Pipe Company, have adopted a rate of 65 per cent discount off price list, applicable to Canadian importations from the United States. A New York firm of publishers of etchings and engravings, are allowing a discount of 50 per cent to Canadian purchasers, and only 33½ per cent for home consumption. A Chicago firm, which manufactures windmills, frankly, but somewhat dishonestly, states: "We could send you a separate invoice for the customs authorities, with the actual value of the mill—that is, the cost to us—so that you would only pay duty on that, instead of on our selling price; this would save you something." Another firm manufacturing dress cutting machines, in Chicago, says: "We have reduced our rates in Canada on account of the duty, the prices written in ink, on price list, are

for Canada only." A typewriter exchange in New York City has issued a circular to Canadian customers in which this statement appears :

You can get a machine across the line free of duty, by having it shipped by us to the nearest point in the United States, then you can call or have a friend call there, and take it over the line as it is a second-hand article, and is used for personal use, and will get duty free. This has been done, and we know of just such a case not a month ago, so you can save all duty. If you know of anyone in a town near you, you can write to the express agent on this side to hold it for you, and we can ship it in your name or in care of the express agent.

THE production of metals and minerals in the Dominion for the year 1890, according to a preliminary summary recently issued by the Government, was as follows :

	Quantity.	Value.
Gold, oz.,.....	65,014	\$1,166,227
Copper, lbs.,.....	9,454,913	968,241
Nickel, lbs.,.....	1,640,240	1,230,180
Silver, oz.,.....	400,687	420,662
Iron ore, tons.....	76,511	155,380
Iron pig, tons.....	21,772	331,688
Lead, lbs.,.....	113,000	5,085
Arsenic, tons.....	25	1,500
Asbestos, tons.....	8,000	1,039,661
Baryta, tons.....	1,842	7,543
Bricks, thousands.....	208,587	1,247,607
Building stone, cub. yds.,.....	360,001	936,168
Cement, bbls.,.....	102,216	92,405
Coal, tons.....	3,117,661	6,369,910
Coke, tons.....	56,450	166,298
Felspar, tons.....	700	3,500
Fertilizers, tons.....	1,203	31,889
Flagstones, sq. feet.....	17,865	1,643
Glass.....		537,130
Granite, tons.....	13,307	65,985
Graphite, tons.....	175	5,200
Grindstone, t ns.....	4,884	42,340
Gypsum, tons.....	226,806	196,527
Limestone, for flux, tons.....	19,824	17,913
Lime, bush.....	2,218,413	364,425
Manganese ore, tons.....	1,328	32,550
Marble, tons.....	780	10,776
Mica.....		68,074
Mineral paints, tons.....	325	5,500
Mineral water, gallons.....	417,165	35,231
Moulding sand, tons.....	170	750
Petroleum, bbls.,.....	765,029	902,734
Phosphate, tons.....	31,753	361,045
Pottery.....		190,242
Pyrites, tons.....	49,227	123,068
Quartz, tons.....	200	1,000
Roofing cement, tons.....	1,171	6,502
Salt, tons.....	43,754	185,382
Sand and gravel (exports), tons.....	342,158	65,518
Sewer pipes.....		348,000
Slate, tons.....	6,368	100,250
Soapstone, tons.....	917	1,239
Sulphuric acid, lbs.....	11,118,779	145,235
Terra cotta.....		50,000
Tiles, thousands.....	10,451	140,177
Whiting, bbls.....	500	500
Total non-metallic.....		\$13,928,417
Total metallic.....		3,722,565
Estimated value of mineral products not returned, principally structural materials.....		1,349,018
Total.....		\$19,000,000

A CORRESPONDENT of *L'Etendard*, of Montreal, makes an appeal to the authorities for the protection of native Canadian tobaccos, which would, he thinks, be of great service to our agriculturists. Experts in this branch of cultivation have pronounced Canada (Quebec especially) excellently adapted for raising tobacco of fine quality. What is proposed is that it should be sufficiently protected to make it worth while for a

large number of persons to engage in its cultivation on a large scale. He suggests that a much higher duty should be placed on foreign tobaccos, and that the English mode of collecting it should be introduced into Canada. The American tariff imposes a duty of \$2 per pound upon leaf tobacco suitable for cigar wrappers, if not stemmed, and if stemmed, \$2.75 per pound; while all other tobacco in leaf, unmanufactured and not stemmed, is 35 cents per pound, and stemmed, 50 cents per pound. All such tobacco is admitted into Canada free. Last year the quantity of unmanufactured tobacco imported into Canada was 11,376,263 pounds, of which 11,226,944 pounds came from the United States. The returns do not show how much of this tobacco was suitable for wrappers, but no doubt there was enough of it to wrap nearly all the cigars made in the country. Last year, according to the returns, the exports of leaf tobacco, entirely to the United States, amounted to 49,842 pounds, more than half of which went from Ontario: but the American returns show that the imports into that country from this were about 450,000 pounds, or nine times as much as was reported at our customs for export. Canada, then, is a considerable producer of tobacco, and there is no good reason why the industry should not receive tariff protection. By all means give the Canadian tobacco grower as much protection as the McKinley tariff gives the American farmer.

AN interesting pamphlet has just been issued by the Bradstreet Company giving statistics about mercantile failures and their causes in 1890. There is, it is shown, one strictly commercial or industrial establishment in the United States and Canada to each seventy inhabitants. Of this number 12,299 failed last year, a failure being defined as resulting in loss to creditors; no account being taken where the losses fell solely on principals. Out of 1,063,000 traders reported, about 903,000, or 85 per cent. are credited with less than \$5,000 capital each, and of the failures as defined 90 per cent. were of the concerns whose capital was less than \$5,000 each. One in each seventy-five of these small traders fails each year. Tables are given to show the causes of failures during the year, one of which is a condensed statement of percentages in number and in amount of liabilities of those who failed during 1890, classified as to causes as follows:

Failures Due To	Canada per cent.	United States per cent.
Incompetence.....	1.9	18.8
Inexperience.....	4.1	5.7
Lack of Capital.....	55.8	37.9
Unwise credits.....	3.1	4.7
Speculation (outside).....	2.7	5.6
Neglect of business.....	2.7	3.6
Extravagance.....	.5	2.1
Fraudulent disposition.....	1.8	3.9
Disasters.....	5.9	12.7
Failures of others.....	2.3	2.4
Undue competition.....	1.8	2.3

By this table it will be seen that more than half the failures in Canada last year were caused by lack of capital, and that these involve nearly half the total liabilities of all the failures of the year. The percentage of failures in Canada from lack of capital, it will also be observed, is considerably greater than in the United States. It will also be observed that while this latter fact stands to the discredit of Canada as compared with the United States, all the other causes of failure, except incompetency, show stronger against the latter country than

against this. When it is seen that 85 per cent. of those engaged in mercantile pursuits enter business with less than \$5,000 capital each, and that of those who failed in business 90 per cent. were of concerns whose capital was less than \$5,000 each, it is not surprising that so many bankrupt stocks are constantly going under the hammer, to the great detriment of substantial business men. But these failures, as the Bradstreet Company show, are in no way attributable to the fiscal policy of the country as the Grit papers would like to make the people believe.

## SPECIAL ADVERTISEMENTS.

*Advertisements will be accepted for this location at the rate of two cents a word for the first insertion, and one cent for each subsequent insertion. Subscription \$1.*

"TRIUMPH OF THE AGE." Attention is called to the advertisement of The Eno Steam Generator Company, Limited, on page 416 of this issue. This Generator is being adopted by the leading manufacturers in Canada and the United States. Every steam user should investigate its merits.

J. L. O. VIDAL & SON, City of Quebec, are agents to sell and handle on commission all sorts of new and second-hand machinery, engines, boilers, pumps, agricultural implements, belting, hose, safes, saws, files, bolts, machines and tools for shoe factories etc. Consignments solicited. Best references given.

THE Coggeshall Manufacturing Company, of Melrose, Mass., U.S.A., owners of the patents for the Dominion of Canada for the Hamblin High Speed Cotton Loom, have made arrangements with Young Bros., of Almonte, Ont., for the building of some looms immediately, and which, when completed, will be placed in some of our leading mills for trial. John Elliott, of the late firm of Elliott & Co., woolen manufacturers, Almonte, has been appointed selling agent for the Dominion, and solicits correspondence.

THE HEESON IMPROVED FURNACE GRATE has no equal for shaking all kinds of furnaces, round or square, boilers heating furnaces, ovens and stoves. It is the only grate that will clean fires without opening fire doors. It is the strongest bar known, having the most air space, thus securing better combustion. These bars are saving more fuel and generating more steam and will last longer than any other bars on the market. Ten per cent. saving in fuel guaranteed or no sale. References on application. HEESON GRATE BAR Co., 38 King St. East, Toronto.

FOR SALE, in Kent County, Michigan. The Buchanan Mill property consisting of a first class lumbering mill the extensive water power in connection with it, including the entire power furnished by the river, with real estate on both sides of sixteen acres, situate one mile from Main Street of Lowell, a rich farming country surrounding an excellent location for paper mill, furniture factory, woolen mill and the many uses that require power. Also a splendid home and farm of 87½ acres with buildings, fruit, evergreens, etc. For further information call at the premises of JAS. R. BUCHANAN, Lowell, Michigan.

FOR SALE, A VALUABLE CANADIAN PATENT.—The Trenholm Improved Perpetual Hay Press, patented 1882, has been manufactured in New Brunswick for nine years, and stands without a rival in the Maritime Provinces. As it has not been introduced in the Upper Provinces, the purchaser can, if he manufactures there, get practically a complete control of the business in Canada, as this machine is cheaper, stronger, earlier running and more durable than any other Press of its class, and is well protected by patent. Full investigation invited. Terms easy. Write for particulars to A. J. TRENHOLM, Sussex, N.B.

A RISING TOWN.—The Town of West Toronto Junction possesses exceptional residential and business advantages, and promises to speedily become the chief manufacturing centre of the Dominion. This town has the following railways, viz: Grand Trunk Main line (Carlton West Station); Northern Division of the Grand Trunk (Davenport Station); The Toronto, Grey and Bruce, and Credit Valley, and Ontario and Quebec Divisions of C.P.R., and Belt Line Railway (now in progress). The town offers to large manufacturers free sites, water at cost and exemption from taxation. Any information regarding the same will be given upon application to ROBT. J. LEIGH, Town Clerk, or D. W. CLENDENAN, Mayor.

WEST TORONTO JUNCTION ENTERPRISES.—The ten large factories which have located at West Toronto Junction during the past three years are all doing large trades. The "Barnum Iron and Wire Works," the "Toronto Rolling Mills and Forging Company," and others about to locate will swell the paying industries of the town and augment its population. A large number of fine residences and business blocks have added to its appearance and to its facilities for supplying the peoples' wants. A perfect fire alarm system (the "Gaynor"), and an efficient system of water-works, both now in operation, with sewers, electric lights and improved streets now contemplated, will add to the protection and the comfort of the people and their houses. Free sites, free water and exemption from taxes are inducements offered to first-class manufacturers, and it is now acknowledged by all that Toronto's western suburb, with its great continental railway connections, is destined to be among the most prosperous cities of Canada. Dr. Carleton is Chairman of the Factory Committee.

THE *Aluminium Age*, published at Cincinnati, Ohio, is a scientific mechanical journal, in which is given all the latest information concerning aluminum and its manufacture. The subscription price is 50c. per year, including a pure aluminum coined souvenir, upon which is the Lord's Prayer.

THE new publication entitled, "Book for Advertisers," just put forth by Geo. P. Rowell & Co., of New York, undertakes to advise advertisers what papers they should use; and although its name scarcely one-tenth of the papers published, THE CANADIAN MANUFACTURER is one of those that are mentioned. The book contains nearly 400 pages, and is sold, in paper covers, for a dollar, or in a handsome library binding for two dollars. It is sent postage paid on receipt of price.

THE June number of *Wives and Daughters*, a most excellent publication for women, proves a pleasant surprise to its thousands of readers. Its contents are unusually interesting, and it now appears in neat sixteen-page form. The subscription price is only 50c. per annum. It is included, without extra charge, only with the popular "Double Weekly," the *Western Advertiser*, which is issued twice a week at the liberal rate of \$1 for each eight months. Samples of



each paper free by addressing—Advertiser Printing Company, London, Ont.

*British Columbia Commerce*, published semi-monthly at Vancouver, B.C., is specially devoted to industrial development and extending foreign trade relations throughout the Pacific. It circulates in the Oriental and Colonial markets, and through constant personal solicitations finds a place in the offices of the leading shipping firms, wholesale houses and manufacturers of the country. It pays particular attention to the building up of the varied interests of the Province of British Columbia and the development of its vast resources, and merits the support of the whole mercantile community.

THE Halifax, N.S., *Critic* comes to us blushing a beautiful pink color, which reminds one of strawberries and cream. It says: "Our long-expected, promised and long-delayed colored cover has at last made its appearance. We have felt very pale-faced in the white one, and even hesitated to venture it at first, but the necessity of more space became so pressing that we had to enlarge and put up with white paper until we could get colored. We trust none of our readers have any particular prejudice against the color we have selected. Among all the samples submitted to us we thought the pink the most pleasing color. It is cheerful and not trying to the eyes."

"THE Evolution of Wool Spinning and Weaving" will be described by S. N. D. North in the July *Popular Science Monthly*. This is the sixth paper in the *Monthly's* illustrated series on "The Development of American Industries since Columbus," and covers a notably interesting group of inventive labors. Under the title of "Man and the Glacial Period," Prof. G. Frederick Wright will contribute a record of the important facts that have come to light in the last two years bearing upon the connection of man with the ice age in North America. The paper will be illustrated. David Starr Jordan, the newly-appointed President of Stanford University, will have an article on "The Colors of Letters," giving his own experience with these peculiar psychological phenomena.

THE first number of Volume II. of the *Outing Weekly Tennis Record* for the season of 1891, was published on June 13th, and it should be read by every devotee of the delightful game. It is the official organ and bulletin of the United States National Lawn Tennis Association, and bears the indorsement of Chas. E. Stickney, secretary of that organization. The *Weekly Record* is tastefully gotten up, and, in addition to all official records up to date, contains portraits of noted players, a department of "Club Gossip," "Current Chat," "The Referee," and editorial paragraphs from the pens of prominent tennis players, while club matters, personals, etc., lend additional interest. The principal editorials refer to the new committee and amended rules of the U. S. N. L. T. A. The "English Letter," an article on "Mixed Doubles," and "Tennis in the South," are special features of a most attractive number.

THE issue of *The Dominion Illustrated* for June 20th will contain a full series of views of the lying-in-state and the funeral ceremonies of our late Premier, at both Ottawa and Kingston. No pains will be spared to make the number a fitting souvenir of Canada's great statesman. The publishers of *The Dominion Illustrated* announce the receipts of a very large number of answers in the unique and valuable prize competition inaugurated by them at the beginning of the present year, and which, until the close of the present month, will still be open to new subscribers. Now is the time for any who have a desire to compete to get the necessary information as to terms and conditions and take advantage of the next few weeks for an effort to obtain one of the 100 prizes, aggregating over \$3,000 in value, that are to be distributed. Send twelve cents in stamps to the Sabiston Lithographing and Publishing Company, Montreal, the publishers, for sample copy and full particulars.

PERHAPS the most enjoyable thing in the June *Wide Awake* is that story with the Edward Bellamy touch, "The Pursuit of Happiness," by Tudor Jenks—a quizzical look into the future for boys. A beautiful romance is contributed by Annie Bronson King, under the title, "This Way Went the Lady Mary to Paradise." A good old-time article, "A Vermont Boy's Trip to Boston in 1825," is from the pen of John L. Heaton, with pictures by Garrett. "Amanda Jinkum's Burdens," by Oliver Howard, has its serious lessons for elder daughters. All the girls might take some tender teaching from sweet, bright, true Polly Pepper in Margaret Sidney's Pepper's serial, which has never been more interesting than in the present number. Quite a different little girl from Phronsis Pepper, but a charmingly quaint child, makes her courtesy to *Wide Awake* readers in the new serial, "Miss Matilda Archambeau Van Dorn," in the third serial, "Marietta's Good Times," we get delightful glimpses of the free open-air life of Italian children. This serial is from the pen of an Italian woman, recalling her childhood. Good

articles, poems and pictures crowd the number full. *Wide Awake* is \$2.40 a year; twenty cents a number. A specimen (back number) will be sent on receipt of five cents. D. Lothrop Company, publishers, Boston.

SEVERAL pages of *The Illustrated American* for the week ending June 13th are devoted to an account of the trial of the so-called dynamite cruiser *Vesuvius* in Hampton Roads. As the development of a purely American idea that may eventually revolutionize methods of naval warfare, the tests were of great interest. The illustrations of the firing are taken from instantaneous photographs, and present many curious features respecting the flight of the projectiles. Other illustrations show the *Vesuvius*, her guns and her machinery. Another article gives an account of the introduction of the hackney breed of horses into this country, which will be of much interest to everybody who cares for driving. Ex-Governor Isaac P. Gray, of Indiana, is portrayed as a possible President; the design for the new Masonic Home at Utica, N.Y., is reproduced, and a glimpse is given of the young Chinese Emperor, who was recently seen for the first time by white men, and of his court. The last article, among other illustrations, includes a sketch of the Emperor giving audience, which was made by a member of the diplomatic corps at Peking who attended the ceremony. In the way of fiction is a short story of adventure entitled "One Hundred Thousand Francs." A new feature added to the women's department is devoted to Graphology, or the delineation of character from handwriting, and judging from the number of persons who have sent samples of their handwriting to the expert in charge, it is evidently exceedingly popular. In the previous issue of the *Illustrated American* was a timely article on the American fishing clubs that have established themselves in Canada and have glorious sport each year in killing salmon. Its interest is enhanced by the beauty of illustration characteristic of this new magazine. A portrait of ex-Queen Natilie, who has just been expelled from Serbia, forms the frontispiece, and helps to illustrate a short account of the discreditable record of the present royal line of Serbia. The record of another ruling line—the Romanoffs—is discussed in connection with the attempt on the Czarawitch's life, and a long list of dark murders is recalled. Some interesting reminiscences are given of the late General Sherman as he appeared to his friends at the Union League Club and some of the anecdotes he was fond of relating are repeated.

THE Grand Trunk Railway Company will probably erect extensive car-building shops at London, Ont., in which 500 hands will be employed. The city authorities of London will pay \$100,000 as an inducement to the railway company to locate these works there.

MR R. G. LECKIE, general manager of the Londonderry Iron Works, N.S., gives the following details regarding the improvements recently made in the company's plant: A new blast furnace has been built and was blown in on the 6th inst. Its dimensions are: height of stack, 75 feet; diameter of bosh, 18 feet; width of hearth, 9 feet; and it is constructed on the most approved plans. There are three hot blast stoves upon the Siemens-Cowper principle, 60 feet in height and 20 feet in diameter. Two blowing engines, made by Daniel Adamson & Company, Manchester, England, have been put in. The cylinders have a diameter of 48 feet and a 5 feet stroke. The weekly product will be between 600 and 700 tons pig iron. Two gas kilns for roasting ore, capable of treating 160 tons daily, have also been erected, with gas producers in connection. In the rolling mill, two new puddling furnaces have been added, which brings the daily capacity up to between thirty-five and forty tons of puddled bar.

A WRITER in the *Popular Science Monthly* of "The Youngest of the Sciences," electricity, says: We are only beginning to realize the advantages which our new-found force may have in store for us. Every month the electric street car is more and more displacing the horse car, with added comfort to passengers and diminished wear of our thoroughfares. Power is conveyed silently over wires from central stations and distributed wherever it may be required for manufacturing purposes, saving a vast outlay in separate boilers and engines, and greatly economizing space. In great telegraph centres the dynamo is displacing cell batteries for the production of current. It is also used for electrolytic operations on a large scale. Nothing, perhaps, is more impressive than to witness the operation at the same moment and on the same spot of three distinct forms of force, mechanical or physical, electrical and chemical, one merging into the other. The water-wheel or steam-engine furnishes mechanical power, converts it into electrical energy, which again, conducted to an electrolytic cell, is further changed into chemical action. Nothing could more powerfully bring home the lesson that, in the last analysis, all energy is one.

# Manufacturing.

*This department of the "Canadian Manufacturer" is considered of special value to our readers because of the information contained therein. With a view to sustaining its interesting features, friends are invited to contribute any items of information coming to their knowledge regarding any Canadian manufacturing enterprises. Be concise and explicit. State facts clearly, giving correct name and address of person or firm alluded to, and nature of business. Subscription \$1.*

MR. W. M. SMITH will build a 50,000 bushel grain elevator at Portage la Prairie, Man.

THE iron foundry of Mr. William Garrett at Tweed, Ont., were destroyed by fire June 16th.

MESSRS. BRACKMAN & KER's new oatmeal mill at Victoria, B.C., will be 93x50 feet, five stories high.

THE Diamond Glass Company, Montreal, have increased their capital stock from \$10,000 to \$500,000.

NATURAL gas has been discovered at New Westminster, B.C., and a company is being formed to sink a well.

MR. ROBERT GILHOLM's saw-mill at Galt, Ont., was destroyed by fire a couple of weeks ago, loss about \$3,500.

MESSRS. GUNN & MURRAY, of Strathroy, Ont., have obtained a suitable factory building, and will start a flax mill at Watford, Ont.

THE Sherbrooke Stove Company, Sherbrooke, Que., is being organized with a capital stock of \$9,600, to manufacture stoves, etc.

MR. CHALDECOTT's new fruit cannery at Chilliwack, B.C., embraces a complete evaporating plant for the preservation of fruit.

THE saw mills of the Casselman Lumber Company at Casselman, on the line of the Canada Atlantic Railway, were destroyed by fire June 15th.

THE Dominion Crystal Tablet Company, Toronto, will be incorporated with a capital stock of \$7,000 to manufacture washing crystals, etc.

THE Buckingham Manufacturing Company, Montreal, is being incorporated with \$80,000 capital stock for the manufacture of wood pulp, etc.

APPLICATION for incorporation by letters patent is made by the Emery Wheel Company (limited), of Prescott, Ont., with a capital stock of \$25,000.

LA Compagnie de Papier de Montreal (The Montreal Paper Company) is being organized with a capital stock of \$50,000, to manufacture paper.

MR. J. A. ELLIS, of Fenelon Falls, Ont., was recently in Vancouver, B.C., looking up a location for a saw mill which he proposes starting there.

THE British Columbia Paper Company with \$40,000 capital are building works at Albernia Rapids, B.C., for the manufacture of paper from wood pulp.

THE Waterloo Knitting Company, Waterloo, Que., with a capital stock of \$30,000, is being incorporated to manufacture all kinds of knitted and woven goods.

THE Canada Chemical Manufacturing Company is being organized at London, Ont., with a capital of \$80,000, to manufacture chemicals, dye stuffs, etc.

MR. W. C. CRAWFORD, Tilbury Centre, Ont., are filling one order for 1,100 bedsteads for a Brandon, Man., dealer. His furniture factory is very busy.

THE Canada Peptonized Beef and Ale Company is being organized at Halifax, N.S., with a capital stock of \$150,000, to manufacture medicinal preparations.

MESSRS. J. G. SHORT and James Dunlop have taken over the organ manufacturing business recently conducted at Woodstock, Ont., by Mr. E. Thomas, deceased.

THE Albion Iron Works, Victoria, B.C., are at work upon ten

large buoys to the order of the Department of Marine, which are to be placed on the British Columbia coast.

MR. J. W. SHARPE and associates, of Dresden, Ont., have organized a company with \$10,000 capital, and will start a cannery for putting up all sorts of fruits and vegetables.

LA Compagnie Industrielle de St. Jerome (The St. Jerome Industrial Company) St. Jerome, Que., is being organized with a capital stock of \$30,000 to manufacture furniture, etc.

MR. S. M. O'KELL, of Manchester, Eng., is establishing works in Victoria, B.C., for the preservation of small fruits, and also for packing salmon in glass jars for the British market.

MESSRS. GALE & SON, Waterville, Que., have recently made a large shipment of spring beds to Jamaica, West Indies. This is a result of their display at the recent Jamaica Exhibition.

MR. W. H. LAW, proprietor of the Central Bridge Works, Peterboro', Ont., has been awarded the contract for construction of several steel bridges to be built along the line of the Intercolonial Railway.

THE Canadian Office and School Furniture Company, Preston, Ont., of which Mr. W. Stahl Schmidt is manager, have been awarded the contract for supplying the interior fittings for the Head Office of the Dominion Bank of Canada at Toronto.

THE bread and biscuit bakery establishment of Messrs. Moir, Son & Co., Halifax, N.S., one of the largest in Canada, was completely destroyed by fire June 16th; it was an immense pile of brick buildings, covering half a block. Loss about \$100,000.

J. A. CARTHEW has purchased the Gamble saw mill and cannery site on the Skeena river, B.C., midway between the Standard cannery and Port Essington, and will at once proceed to erect thereon a saw mill, the power being derived from two turbine wheels of 50 horse-power each.

THE greater part of the machinery for the manufacture of cartridge shells has arrived at the Government factory at Quebec, which, it is expected, will be in operation very shortly. The machinery for the manufacture of the Martini-Henry ammunition is already on the way.

THE Chown & Cunningham Stove Company is a long established concern of Kingston, Ont. Belleville, Ont., is offering them an enticing bonus to move to that place, and the probability is the change will be made. The inducement offered is a suitable factory, \$2,000 cash and exemption from taxation for ten years.

MESSRS. S. NEESAN, St. Catharines; T. McIlroy, Toronto, and others are organizing a Company with \$100,000 capital, to be known as the Toronto Rubber Company of Canada, and will take over and operate the india rubber factory at Port Dalhousie, Ont., which has been idle for some time. The concern will give employment to about fifty hands.

THE (N.Y.) *Electrical Review* notices a new electrical percussion drill recently exhibited at Quincy, Mass. The drill made a hole 16½ inches in 15 minutes, and another, a side hole, in a standing position, 18 inches in 8 minutes. Quarry owners and miners from all parts of the country witnessed the exhibition, and expressed their satisfaction at the work done.

As a result of Premier Mercier's visit to Belgium, it is announced that the Societe Metallurgie de Ghent will erect smelting works at Ste. Hyacinthe, Que., to employ six hundred hands, the iron to be smelted to be made of ores from the St. Maurice district. Ste. Hyacinthe gives a bond of \$62,000, payable in five years, and a large tract of land for the purpose of building the works.

THE Sydney Foundry is doing a thriving business, and receiving orders daily from all parts of the Island. Fifteen men are kept constantly employed. The Company have decided to increase their facilities in the machine department, and have ordered from Montreal a large planer and a turning lathe. A specialty is made of plumbing in all its branches.—Sydney, C.B., *Advocate*.

ANOTHER industry has been added to the manufactures of New Glasgow, that promises to assume large proportions in the future. Munro Bros. have commenced the manufacture of picket and wire fencing, galvanized steel wire, wire mattresses, door and window-screens, etc. We trust that the pluck and enterprise of our young friends may be rewarded with abundant success.—*Eastern Chronicle*.

MR. H. J. BIRD, son of Mr. Henry J. Bird, woollen manufacturer of Bracebridge, Ont., has been successful in carrying off one of the four fifteen guinea scholarships at Yorkshire College, Leeds, Eng., for proficiency in textile dying. This is one of the best schools

of its kind in existence, and has a large number of students from all parts of the world. Mr. Bird is to be congratulated upon his success, for the competition was very keen.

Messrs. JOHN TAYLOR & Co., proprietors of the Morse Soap Works, Toronto, advise us that they have been awarded the "Diploma of Honor" for their display of toilet and family soaps at the recent Jamaica Exhibition. This was in competition against the world, and it was the only award of the kind, being of higher rank and value than the gold medal. This concern have recently been awarded a contract by the Dominion Government for furnishing soaps, etc., for Indian supplies.

Mr. J. A. CARTHEW, has purchased the Gamble saw-mill and cannery site on the Skeena, midway between the Standard cannery and Port Essington, and will at once proceed to erect thereon a saw-mill, the power being derived from two turbine wheels of fifty horse-power each. The location is conceded to be the finest for the purpose on the Skeena, and Mr. Carthew has already orders enough in view to keep his mill running to its full capacity all through the season.—Vancouver, B.C., *Telegram*.

A FACT which has never before been made public, but which goes to show the tremendous value of the nickel finds made in the Sudbury region, is that two-thirds of the ore turned out at the Worthington mine is packed and sent direct to the refinery. It is so rich that it cannot usefully be treated in the ordinary smelters. The copper and nickel mix but little in the ore, so that it is possible to select large quantities to be handled by the refineries. Thirty-five men are now employed at the Worthington mine.

THE mill of the Columbia Flouring Mill Company, at Enderby, B.C., is 100 x 40 feet square and five stories high. It contains a full roller process of the most modern equipment, and was erected three years ago by the well-known firm of Goldie & McCullough, Galt., Ont., who also supplied the firm with a 75 h. p. Wheelock engine by which the machinery is run. The boiler and engine are located a little distance from the mill in a brick building. The storage capacity inside the mill is 600 tons, and that of the warehouse adjacent 900 tons.

THE Cant Bros. Co. of Galt, have just brought out a new and improved Hub Boring Machine with a self-centering chuck, capable of receiving blocks from 3 inches to 22 inches diameter, and of boring or reaming either straight or taper holes from  $\frac{1}{4}$  to 5 inches diameter. The hole is bored in the block complete at one operation to the proper size and taper, so as to fit the hub lathe mandrel on which the block is turned and finished. The carriage is mounted on and gibbed to a stout wooden frame, and will neither leave its bearings nor spring even when performing the heaviest class of work; and it slides to and from the boring tool easily and accurately by means of a large handwheel. When the carriage is moved to the back end of the machine, the block can be readily placed in, and taken out of, the jaws which are operated by a handwheel and gearing.

THE Taylor Mill Co., which on Monday took over the entire plant, buildings and business of the Queen City Planing Mills intend adding materially to their equipment, and thereby placing themselves in a position to demand a fair share of the trade of the Province. The company which will be organized next week, with a capital of \$40,000, includes among its stockholders Messrs. Isaac Dobson, D. B. Denton, W. W. Kirkwood and William McCarter, of Seattle, and two other parties of Victoria. They will supply rough and dressed lumber, sashes, doors and everything else in the building line, and their new saw-mill, to be operated in connection with the planing mill, will be erected as soon as details can be arranged. In the meantime a portable mill will be made use of. The new mill will have a capacity of 25,000 feet per diem, and Mr. Taylor, the company's manager, says that its machinery will be the most modern and complete in British Columbia.—Victoria, B.C., *Colonist*.

THE Cant Bros. Company, of Galt, Ont., have just brought out a new double rip and cut-off saw which is especially designed for cutting to accurate uniform lengths all kinds of material used in furniture and cabinet factories. It has two table frames, each four feet long, which can be rapidly adjusted to suit any length of material from eight inches up to six feet six inches long; after which the operator can cut off both ends of the material at one operation absolutely square. The tables, which are of iron, remain level, but the arbors carrying the saws can be raised or lowered by means of a hand wheel. The machine has a sliding cross-cut gauge which can be readily adjusted for different lengths, and which can be instantly removed or replaced. One table frame has a ripping gauge which can be bevelled to varying angles. No sliding car-

riages are necessary, as the arrangement of the gauges is such that one operator can work with a ripping saw and the other can cut both ends of the material at once any length from twenty-two inches to five feet.—London, Eng., *Manufacturer*.

SEVERAL new saw mills are talked of in this Province, at Liverpool, opposite McLaren-Ross mill: at Hall's Prairie; one by Clarence Debeck, a late partner in the Brunette Saw Mill Company, on the northwest coast of the mainland, with a capacity of 100,000 feet per day; one by Slught & Co., late of Michigan, at Steveston, near mouth of Fraser River; one by C. L. Street & Co., at Chilli, wack, now almost ready, and making a specialty of box timber. The Brunette saw mill has started again after completing some improvements and alterations. The McLaren-Ross mill is in full operation. The Chemainus Saw Mill is now ready for work, and there are plenty of logs on hand. The mill starts with an output of 150,000 feet a day, and working up to 200,000. About 150 men were to have been employed at the start. Messrs. D. H. Cameron & Co., of Ottawa, have secured a site at Liverpool, and will shortly commence the erection of a large saw mill to supply both the local and foreign demand. No particulars as to the extent and capacity of the mill are yet obtainable, but it is learned that no time will be lost in getting the enterprise under way.—Victoria, B.C., *Commercial Journal*.

HOWEVER valuable and important the olive as an article of food, the greater interest attaches to the oil which it yields. The flesh of the ripened olive is spongy, and its little cells are filled with the oil, which flows at the slightest pressure. The finest oil is made by collecting the freshly gathered olives in little heaps, where the weight of the fruit presses out the oil, which is collected in receptacles. This oil is clear, with a pleasant, nutty flavor, and is almost entirely without odor. When the oil ceases to flow from the piles of fruit, pressure is applied, and a slightly inferior quality is yielded. The crushed olives are then put into sacks, boiling water is put over them, and they are again pressed, yielding by the latter process a yellowish-green oil, which has a sharp taste and an unpleasant smell. At Marseilles, which is a great centre for the trade, the oil is classed into six grades, the lower being used for burning, for the lubrication of machinery and for soap making. Olive oil is liable to adulteration and counterfeit, so that where it is to be used medicinally or as an article of food, care should be taken to obtain that which is genuine, and cheap grades should always be avoided.—*Good Housekeeping*.

MR. W. H. LAW, proprietor of the Central Bridge Works, Peterboro', Ont., has invented and is building a new cattle guard for railways regarding which it is said that just as long as railways cross the country and cattle run at large will a source of danger exist. Cattle reach the track from the road crossings much more frequently than they do from defective fences along the line. To prevent animals from reaching the track, use is made of what is known as cattle guards, a pit, lined with timber, one on each side of the road, with fences built up to the ends of the pit. To some extent this device is successful in restraining the habits of cattle, but the pit is expensive to construct and requires frequent repairs. Mr. Law's new appliance is constructed of angle bars of steel laid horizontally together and locked by an ingenious but simple device. Four panels are comprised in one set, two lying between the rails and one on each side. The economy of the matter is apparent in that no pit with its lining of timber is required, and by this means a very great saving is effected, the new guard being simply spiked to the ties. It is a difficult matter for a man to walk across it, let alone a cow or horse.

PROBABLY one of the most notable of recent mineral discoveries in Canada is that of a vast deposit of amber on Cedar Lake, near the mouth of the Saskatchewan River, reported by Mr. J. B. Tyrrell of the Geological Survey. It occurs mixed with sand and many fragments of partly decayed wood on a low beach behind a gradually shelving shore, and along the face of a deep wet spruce swamp. The pieces were for the most part smaller than a pea, but could be readily seen glittering among the sand and vegetable debris. Some pieces were found as large as a robin's egg, and it is stated that others much larger have been picked up. Mr. Tyrrell says: "It is difficult to make an accurate estimate of the quantity of amber on this mile of beach, but it may confidently be said to extend throughout the distance in a band thirty feet wide, with a minimum depth of two feet. This band has thus a total bulk of 316,800 cubic feet. A number of specimens collected from various parts of it, showed an average of a little over ten per cent. of amber, which, in natural fragments, weighed about forty-six pounds to the cubic foot. The amount of amber on this strip of beach would therefore be about 31,680 cubic feet or 1,457,280 pounds.

At a minimum value of twenty-five cents a pound, this would represent a total of \$364,320. This estimate refers merely to the material that is now washed up on the ridge of the beach, without considering the source from which it is originally derived."—*Canadian Mining Review*.

MESSRS. A. ROBB & SONS, Amherst, N.S., have got their crane in the foundry working satisfactorily now, which will enable them to do all kinds of casting with greater facility. They have just received another large shipment of the celebrated Hallside steel boiler plates, and their intention for the future is not only to make a specialty of these, and the Dalzell plates, which are considered to be the best two brands, but they are planning to carry a heavy stock of plates of standard sizes for their Monarch patent boilers, as well as stationary boilers, and so far as possible are trying to carry stock sizes of boilers on hand, ready for prompt shipment. The engine and boiler sent to Moncton some time ago to run a large brick business has been put in place by the owners, and will be running in a day or two. The boiler sent for a woolen mill in Antigonish has also been put in place, and it, with the new Hercules engine, will also be running in a few days. The firm have of late sold a number of boilers for cheese factories in Antigonish County and Cape Breton, and they are now busy on a large engine and boiler which is to be shipped in a few days for a large saw-mill in Shelburne. They also have about ready for shipment a Monarch boiler which they have exchanged for a Leonard engine and boiler taken out by a firm up north. Messrs. Robb expect another engine lathe from Boston this week for their engine department, in which they now have five or six hands employed, and expect within a short time to have several of their new automatic engines for electric light purposes ready to put on the market, and, if we may judge of the success of their engines from those in use already in the electric light station here, we may bespeak for them a large and ready sale. Our representative noticed in their salesroom one of the large Rogers saw-filers ready for shipment, and on enquiry we understand that the firm have several contracts for hot-water heating and the fitting up of bath-rooms, for which they will use the Daisy boiler and Safford radiator. They are also introducing a new watchman's clock, the price of which will bring it within reach of every mill and factory owner.—*Exchange*.

#### SHIPBUILDING IN HANTS, N.S.

A HANDSOME barquentine of 550 tons, named the St. Peter, was launched from Thomas Mosher's yard, Avondale, on Monday last. She was built for Capt. Aylward and others, and will engage in the plaster and general business. She was all rigged when she left the stocks, and was towed to Windsor to load.

In the same yard a tern schooner of about 600 tons is in course of construction for Mark Curry and others. She will be launched in about a month.

At Somerville, Captain Greene is building at his yard a barquentine of about 650 tons, which he expects to launch in about two months' time.

A 900 ton barque is on the stocks at J. B. North's, Hantsport. She is being built for Bennet Smith and Son, and will be ready for launching in July.

At Noel, Osmond O'Brien is building a barque of about 1,000 tons, to be ready in July.

In Maitland, Freize & Roy have a ship on the stocks which will be launched in October. She will be about 1,800 tons.

At Joseph Monteith's yard, Maitland, a 1,900 ton ship is being built, which will be launched in September.

At South Maitland a barque of about 1,400 tons is being constructed in Cameron's yard for Martin Dickie and others. She will be ready to launch in July. All the above are being classed in Bureau Veritas and the American Record.—*Moncton, N.B., Times*.

#### THE DODGE WOOD SPLIT PULLEY COMPANY.

This company have sent us their new revised illustrated descriptive price list, having reference to the wood split pulleys manufactured by them. In the introduction the company say:

"In presenting this new edition of our illustrated catalogue and price list, we take pleasure in announcing that since our establishment in Canada for the manufacture of this now celebrated pulley, under letters patent of the Dominion of Canada, we have had the satisfaction of experiencing a steady increase in our business, and to keep pace with the demand found it necessary to greatly increase

our capacity. We are now equipped with the finest machinery made expressly for us and adapted to our work.

"With our patent bushing system for pulleys, and great capacity, we possess the best facilities for executing orders promptly and will here say that we can fill a large order for pulleys with greater dispatch than any manufacturer in the country."

As an evidence of the popularity of these pulleys the company call attention to their Canadian endorsements of them, and to a portion of the prominent and well-known manufacturers who are using them; and reference to this list shows that these users are not only in and near Toronto, but in every Province of the Dominion and in every important manufacturing centre, as well also in England and foreign lands. Among the evidences of the merit of this pulley is a letter written by Mr. Robert Grimshaw, of Philadelphia, one of the most reliable expert engineers of the United States, in which he enters into a close mathematical calculation as compared with other pulleys showing that the figures in favor of transmission of power by the Dodge system 'to be unparalleled in the history of belt transmission.'

Among other interesting matter contained in the book are articles regarding improper conditions of line shaftings, and how they should be equipped; the Dodge patent bushing system, and how these bushings should be applied; why the Dodge independence pulleys are better than others; rules for calculating the speeds and diameters of pulleys; to calculate the driving power of belts; weight and strength of manilla cordage; an elaborate illustrated description of the Dodge system of rope transmission of power, etc.

Those who are interested in this branch of mechanics should apply to this company for this valuable little book, which will be sent free on application.

#### ELEGANT COACHES.

THE cars which left the Canada Atlantic station in Montreal a few days ago composed, by long odds, the handsomest passenger train ever run on a Canadian railway. In the matter of luxurious railway travel the Canada Atlantic people have long been up to the times, but this last stroke of enterprise puts them incomparably in the van.

The new cars have just arrived and will be lighted up and all ready for public inspection this evening between seven and ten o'clock. The outfit comprises an entire train and two extra cars. To describe the appearance of these handsome coaches is no easy task, since nothing short of a close inspection can give an adequate idea of their magnificence. Everything about them is of the very latest design.

The first class cars are framed of British Columbia fir and southern pine; the exterior is finished in Canadian cherry, and every inch of the woodwork is polished and varnished to show the natural beauty of the material, the embellishment being rich gold stenciling. The car is fifty-seven feet long inside, and sixty-three feet over all, and stands fourteen feet four inches from rail to roof.

The internal arrangement is entirely different from any other day car running in Canada. One new feature is a separate smoking room, secluded from the passenger portion of the car by means of a corridor which allows free movement of passengers from one end of car to the other without disturbing the smoking room. The latter will comfortably seat eight people, and the seats are unusually commodious. They are covered with dark green leather. The ventilating apparatus is also of the best. A swing door, additional to the ordinary door of the smoking room, entirely prevents the possibility of smoke finding its way into the body of the car. One end of the coach is provided with a neat and handsome wash-room for men, fitted similar to the Pullman cars, and at the other end is a handsome dressing-room for ladies, and entirely cut off from other toilet arrangements. The seats are of the latest and most modern design, and after the pattern known as the "Fooney," named after the well-known inventor of railway appliances. These seats are as comfortable as a Pullman chair and are covered with a rich crimson plush of the finest quality. All the mountings are solid and plain, and made specially for this car. The wheels on which it runs were imported from Germany, and made by the celebrated Krupp Manufacturing Company. They are of solid wrought iron with steel tires, which constitutes the most perfect wheel made. Each pair of wheels cost \$150. The brakes are the Westinghouse system of the latest automatic quick action, and are simply the perfection of their kind.

The second class cars are finished on the outside the same as first class in every respect. The dimensions, too, are the same, except that they are two feet shorter. The interior is in polished Canadian birch, perfect in wood and workmanship, and its

appearance will surprise those who have never before seen this kind of wood finished in the highest degree of polish. The interior of the second class resembles that of the first class in all but seats and wash rooms, as it has the full complement of toilet room and smoking compartment. The wheels, etc., are alike in both first and second class cars.

Even the baggage cars, fifty-five feet long, are peerless in their way. They are different from those usually in use, and contain mail room, express and baggage. They are finished on the outside both as to colour and design to correspond with the passenger coaches. Thirty-five thousand dollars spent for elegance and comfort represents the capital that moves when this peerless train is on the road.



**TENDERS.**

**SEALED TENDERS** marked "For Mounted Police Provisions and Light Supplies," and addressed to the Honourable the Minister of Railways and Canals, Ottawa, will be received up to noon on Friday, June 19th, 1891.

Printed forms of tender, 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.

No payment will be made to newspapers inserting this advertisement without authority having been first obtained.

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

OTTAWA, May 15th, 1891.

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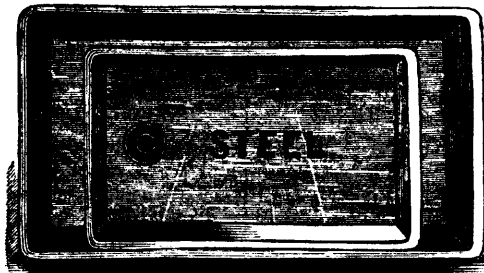
Adapted to Factories, Mills, Steam Heating, etc. No manufacturer or steam user can afford to be without it. Send for Illustrated Catalogue, with full particulars and statements of those who have it in use; or call and see it in operation.

**The Eno Steam Generator Co'y (Ltd.)**  
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These SINKS are pressed from  
**SINGLE SHEETS OF STEEL**

without seams or joints, rounded at the sides and corners so that no dirt can possibly collect anywhere.



Owing to the toughness of the material (steel)

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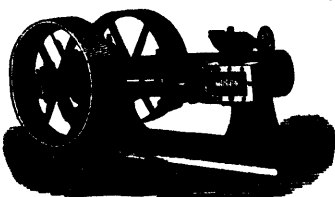
and in consequence of their comparative lightness, **FREIGHT CHARGES** are less than **HALF THE PRICE** of the cast iron article.

These Kitchen Sinks are finished in **PAINTED** and **GALVANIZED**.

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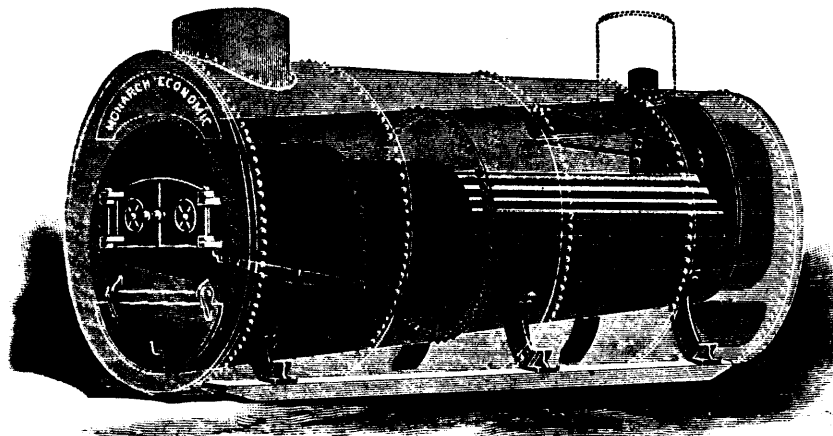
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Is the strongest and most  
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 in use, and its high economy  
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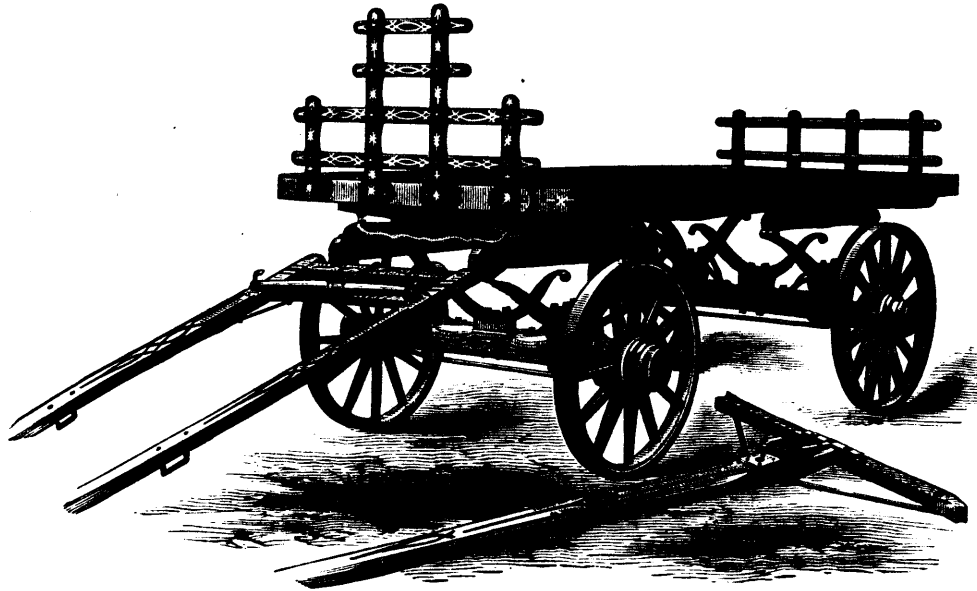
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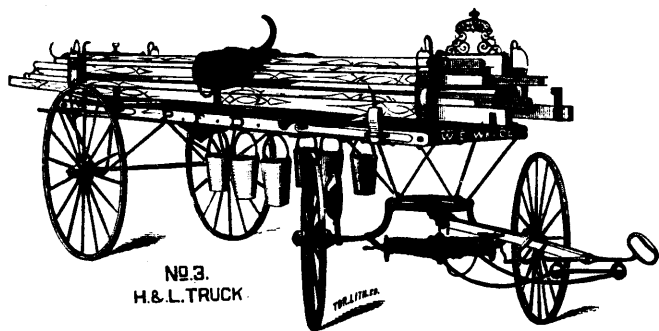
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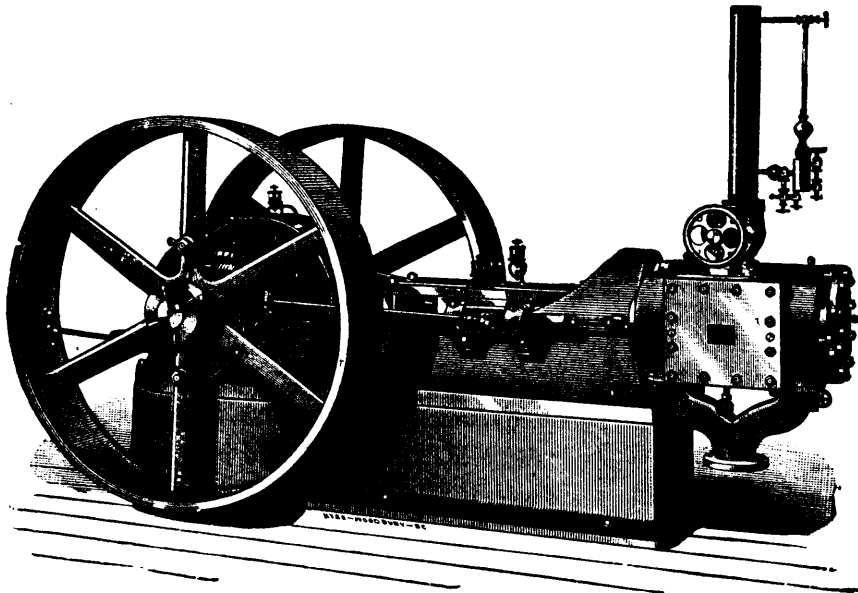
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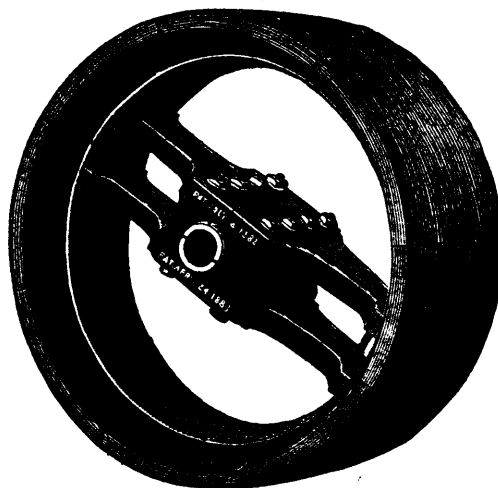
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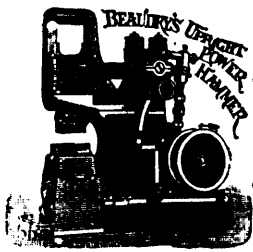
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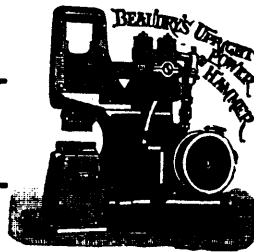
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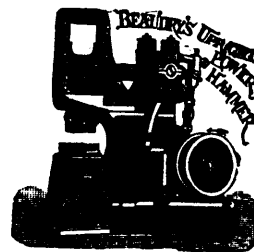
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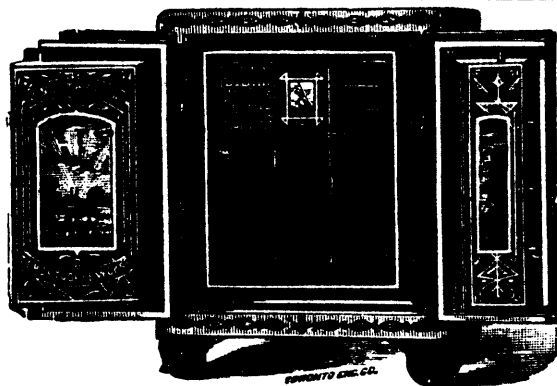


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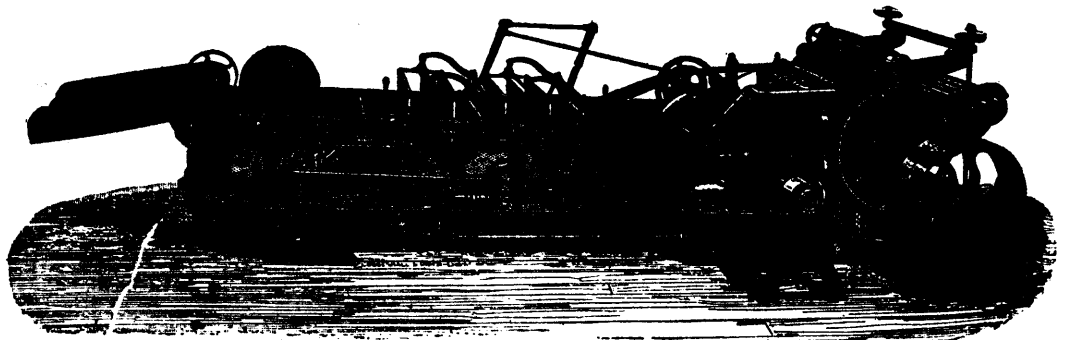
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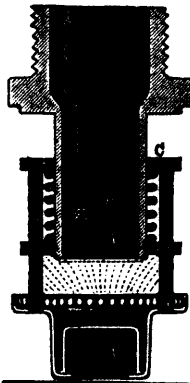
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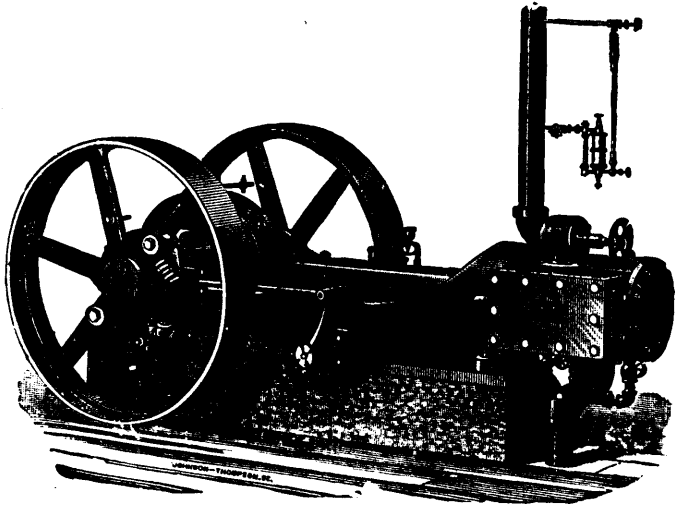
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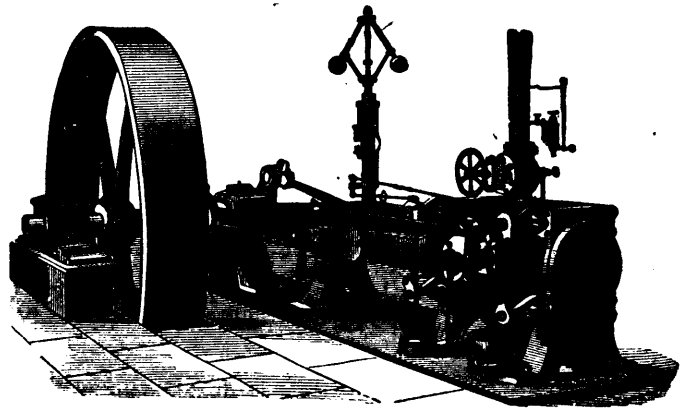
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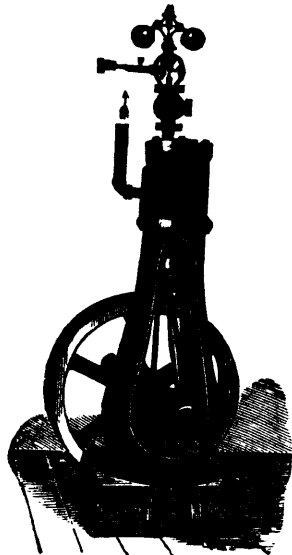




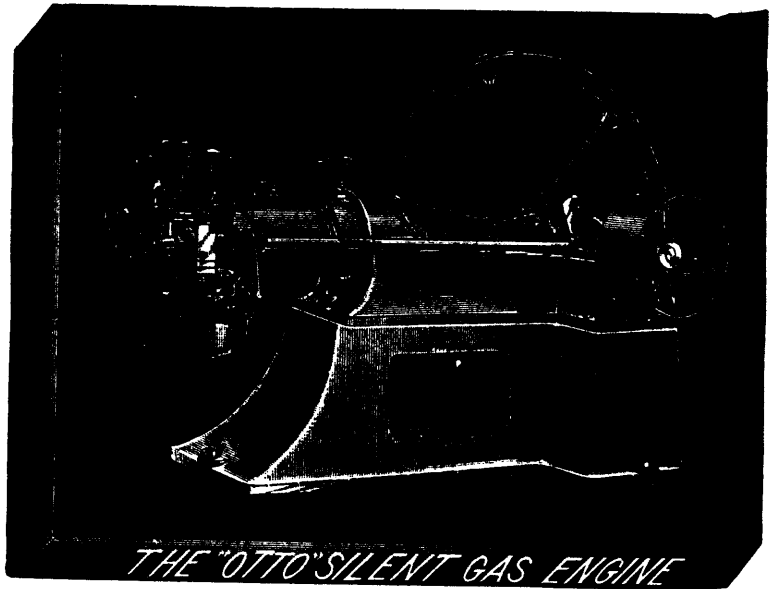
Armington & Sims Electric Light Engines



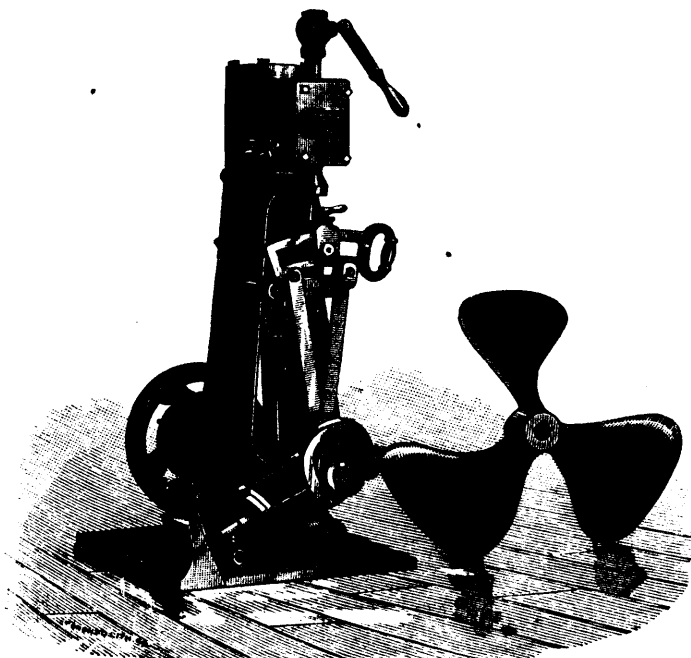
Reynolds-Corliss Engine.



Vertical Engines.



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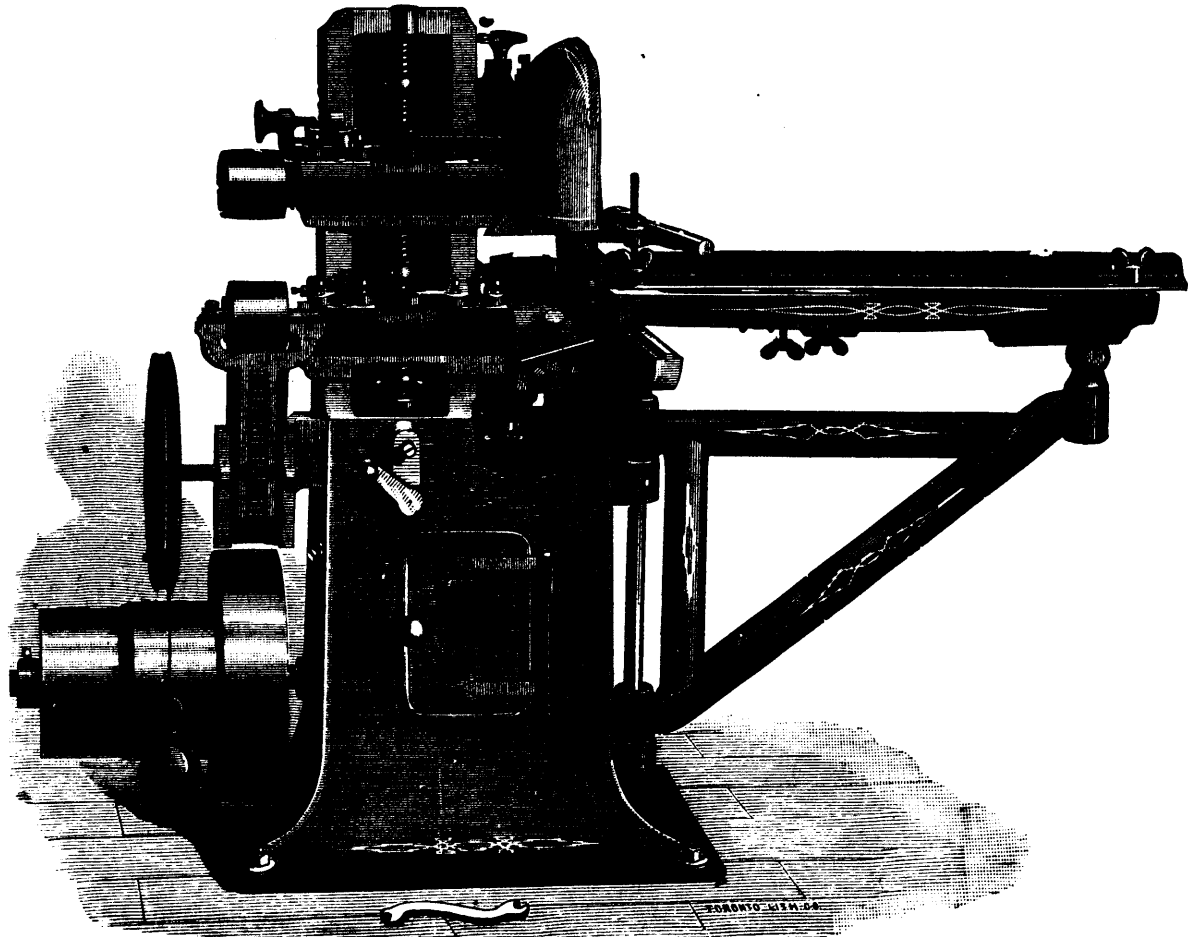
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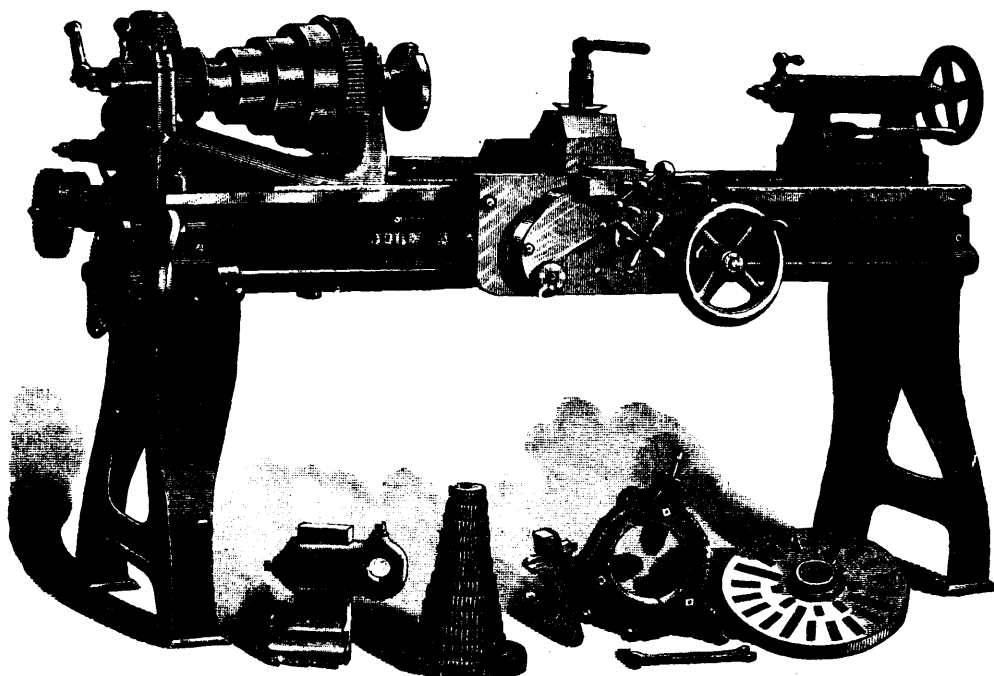
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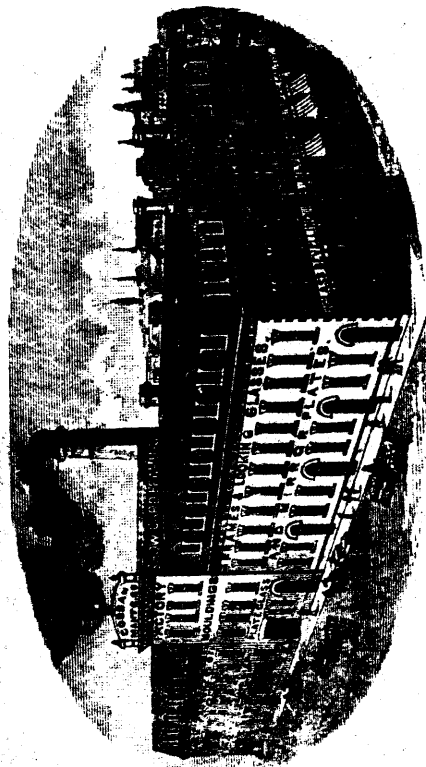
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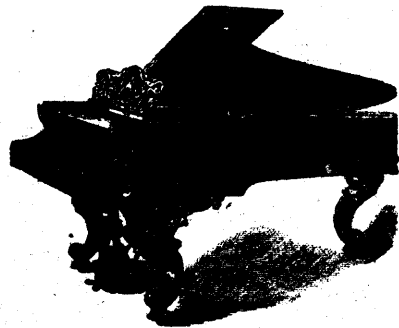
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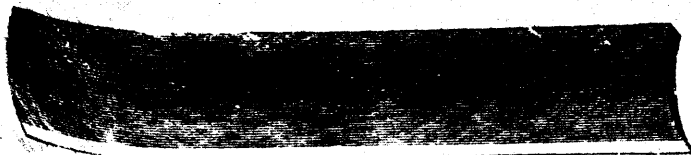
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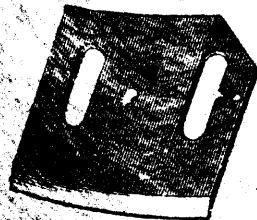


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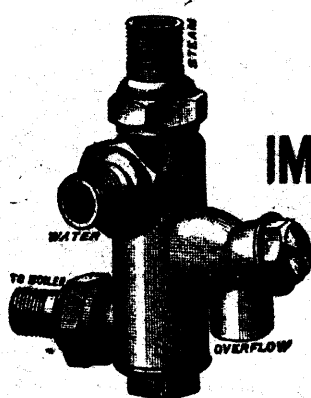
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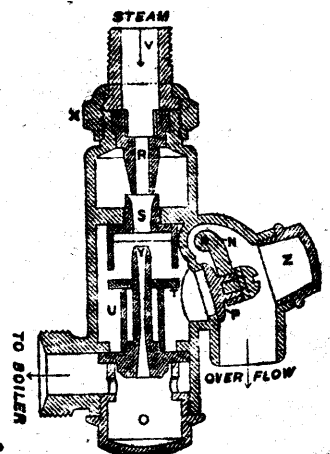
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