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The Journal of Commerce

MONTREAL, CANADA

VOL. XLVIII, No. 4

GARDEN CITY PRESS, JANUARY 27, 1920
Ste. Anne de Bellevue, Que.

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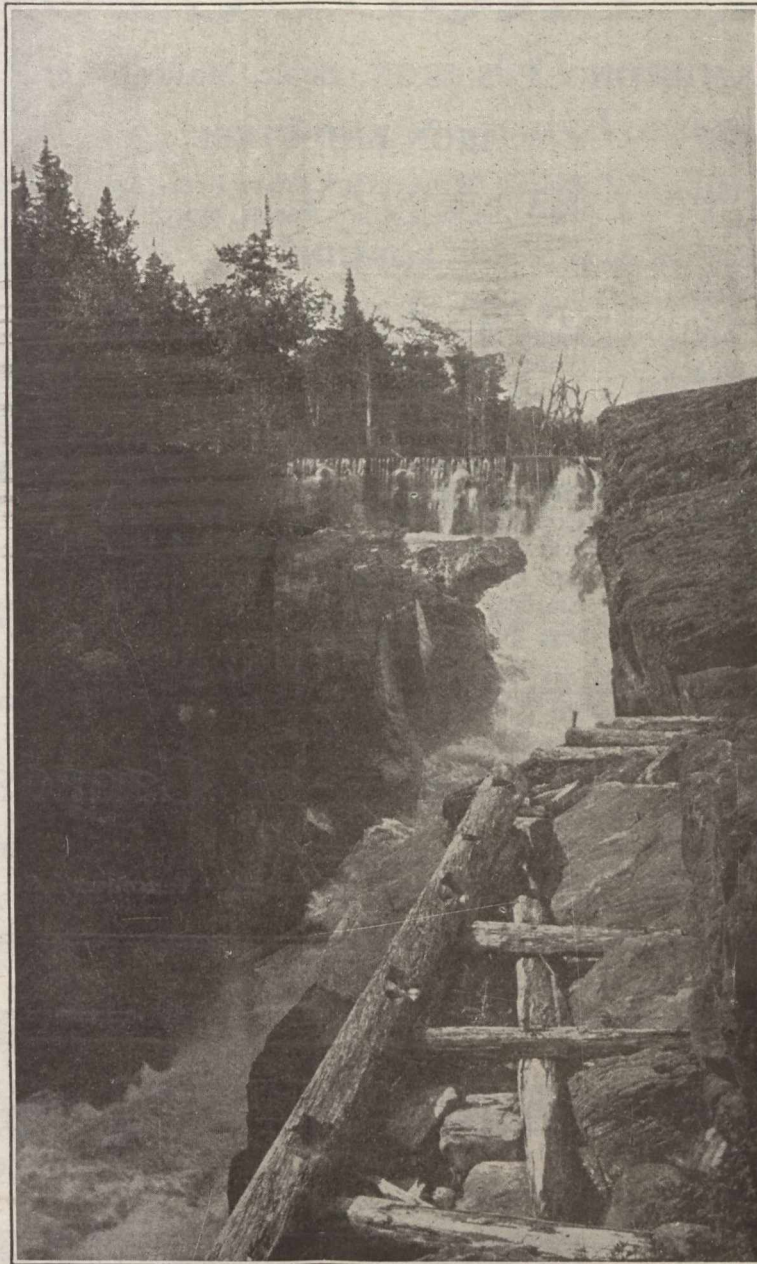
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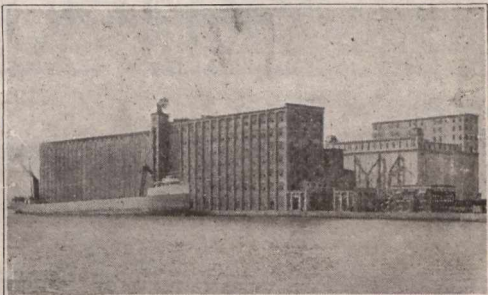
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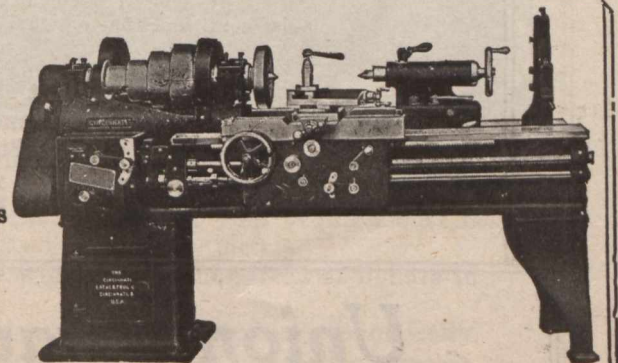
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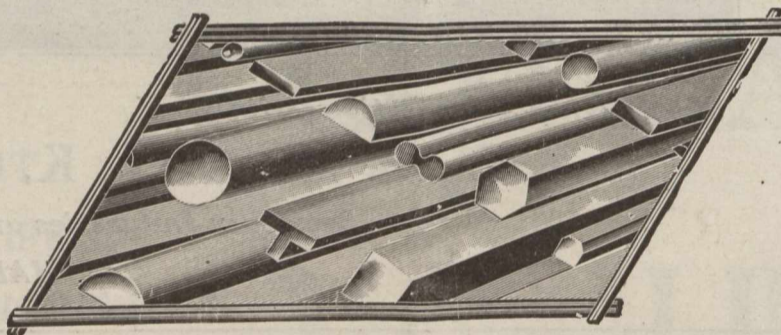
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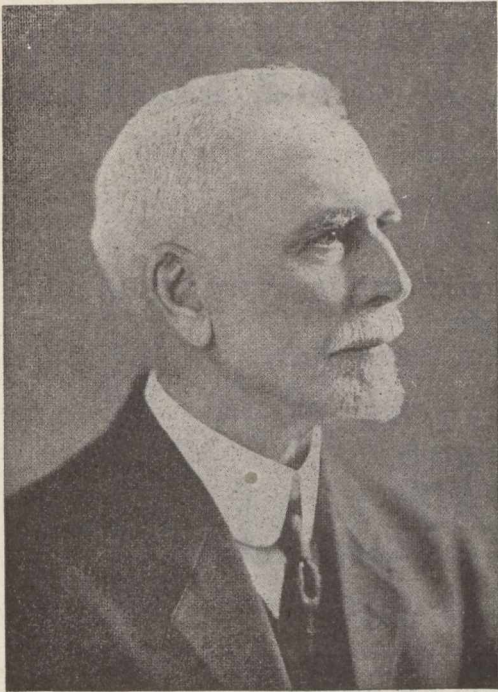
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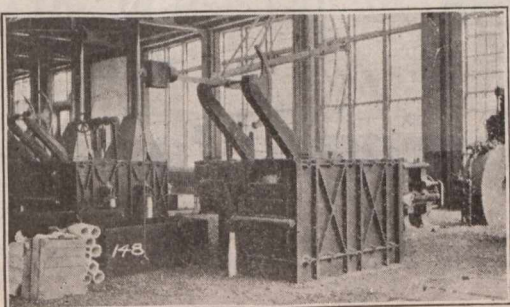
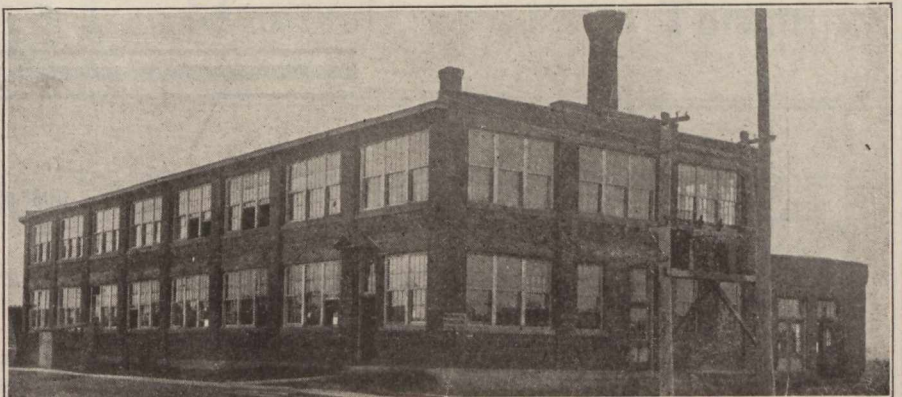
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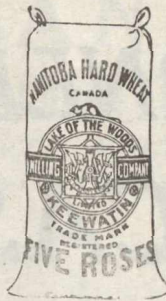
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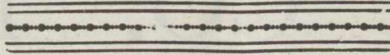
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Reserve Fund.....	17,000,000.00
Undivided Profits.....	1,096,418.74
Dividend No. 129, payable December 1, 1919..	505 219.12
Fiftieth Anniversary Bonus of 2% to Share- holders, payable December 0, 1919....	340,000.00
Notes in Circulation.....	39,837,265.74
Deposits	433,129,602.45
Due to other Banks.....	7,463,823.30
Bills payable (Acceptances by London Branch)	806,776.89
Acceptances under Letters of Credit.....	16,467,978.69
	<u>\$533,647,084.93</u>

ASSETS	
Cash on Hand and in Banks.....	\$101,021,464.54
Deposit in the Central Gold Reserves.....	24,500,000.00
Government and Municipal Securities.....	78,724,141.43
Railway and other Bonds, Debentures and Stocks.....	19,414,891.06
Call Loans in Canada.....	16,435,614.37
Call Loans elsewhere than in Canada.....	33,812,751.53
	<u>\$273,908,862.86</u>
Loans and Discounts.....	233,945,652.67
Liabilities of Customers under Letters of Credit as per contra.....	16,467,978.69
Bank Premises.....	7,016,444.12
Real Estate other than Bank Premises.....	1,495,271.00
Mortgage on Real Estate sold by the Bank...	62,875.59
Deposit with Dominion Government for Se- curity of Note Circulation.....	750,000.00
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The Journal of Commerce

MONTREAL, CANADA

VOL. XLVIII, No. 4

GARDEN CITY PRESS, TUESDAY, JANUARY 27th, 1920
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The Obstacles at Washington

MANY Senators at Washington, of both political parties, are engaged in conferences and discussions with a view to the finding of some ground on which there can be an agreement to ratify the Peace Treaty. On both sides there is at headquarters a nominal resolve to stand firm in the position previously taken. The President's attitude is that there must be no amendment to the treaty, and no reservations that will seem to modify or weaken the treaty. Mr. Lodge and his associates continue to say that the numerous reservations which they demanded are the irreducible minimum of their claim. But while there is at the top this apparent deadlock there is in the ranks of both parties a desire to have it broken by the adoption of some mild reservations.

Some of the Lodge reservations are not important, and it is believed could be accepted as they stand or with modifications. There are two points, however, with which great difficulty is found. One of these is Article X. and the other is the provision which gives the British Dominions seats in the Assembly of the League of Nations. Article X., it may be remembered, provides that the members of the League guarantee to protect all the members against attack. The Republicans who oppose the treaty desire a reservation to the effect that the United States shall not at any time be bound to do anything under this article without the direct authority of Congress. Even this obstacle, it is believed, can be overcome through some form of reservation.

Just now the question of the voting power of the British Empire, including the Dominions, is the most prominent feature of discussion, and the point upon which agreement seems most difficult to obtain. The fear of the United States that Great Britain and the Dominions may act in the League against the interests of the Republic is, no doubt, unwarranted, but it cannot be denied that there is some ground for the assertion that the British Empire will have six votes while the United States will have but one. The Montreal Gazette, reviewing the position, says on this question:

"The British Empire, the Dominions included, will have one vote and only one in the Council, so that the practical

importance of the objection raised at Washington is not great. It is apparent that the League will function for the most part through the Council, which must meet once a year, while the Assembly only meets 'as occasion may require.'"

Our contemporary's statement that "the British Empire, the Dominions included, will have one vote and one only in the Council," is, we believe, substantially correct, but it is not technically so. It is possible—but not at all probable—that the British Empire, the Dominions included, may have more than one vote, that it may have five votes in the Council. The Council is composed of representatives of the Five Great Powers and four others to be elected by the Assembly. The Assembly, composed at first of thirty-two members and ultimately to include a much larger number, could, if they so desired, elect four Dominions members to these places. Sir Robert Borden obtained a memorandum signed by Messrs. Lloyd George, Clemenceau and Wilson, stating that the Dominions represented in the Assembly were not disqualified from membership in the Council. The terms of the treaty are so plain in this respect that the memorandum was entirely unnecessary, and one has to wonder why Sir Robert desired it. But it is hardly conceivable that, while the British Empire is already represented in the Council, the numerous small powers in the Assembly will give any one of the four remaining places in the Council to any of the British Dominions. As a matter of practical business, then, the Gazette is substantially right in saying that the British Empire, including the Dominions, will have one vote only in the Council, and the fear of the United States of undue British influence is not well founded.

But out of this position as stated by the Gazette a question naturally arises: If the Assembly as an unimportant body, meeting only "as occasion may require," if the League is to "function for the most part through the Council," in which the Dominions will have no representative, what is the value of the Dominion's representation in the Assembly? Membership in the Assembly of the League is a flattering recognition of the growing importance of the Dominions, and from that viewpoint is regarded with favor by many Canadians. But if the Assembly is an unimportant body, are the

seats in it worth contending for? It is within the bounds of possibility that the treaty may be shipwrecked at Washington on account if a provision respecting the Dominions which is of no real importance to the Dominions.

Learning the Game

IN the strange political situation that has arisen in the Province of Ontario there seems to be a pretty general feeling that the best way to avoid further confusion is to give the new Farmer-Labor Government a fair chance to show what it can do to carry on the business of the Province. The Government's position is weakened by the inexperience of its members and by the fact that it has only a minority of the electorate behind it. However, the Farmer-Labor group has a larger membership in the House than either the Liberals or the Conservatives, and that fact gives it a title to the Cabinet seats. Nobody questions the sincerity of the Government's desire to do what they believe to be right. While on all sides there will be a disposition to give the new men every fair opportunity to do things, they must not be surprised if considerable amusement is afforded by their course.

Some of the alleged evil practices of the old parties are found to be very convenient in the new order of things. One of the habits of old party governments sometimes complained of was the arranging of election contests in such a manner as to give the Government of the day an advantage. If several vacancies in the representative House existed the elections were not brought on simultaneously, as would be the case if there were no party interests to be served, but were called in the order in which they could best strengthen the ruling party. The fairly safe seats were first opened and the success won in them was counted on to strengthen the Government in the doubtful constituencies where the elections were held later. It was, perhaps, not a very grave fault in party government, but undoubtedly it at times gave good ground for criticism.

Our farmer friends at Toronto have not been slow to avail themselves of this political fine art. The Premier and two of his Cabinet colleagues are without seats in the Legislature. It is necessary for them to obtain seats. We are told that arrangements have been made by which elected members will make way for them. But only a part of the programme is disclosed. The three elections are not to be brought on together. What is contemplated is thus naively explained by Hon. Mr. Grant, the Minister of Education:

"The reason we are not running the three elections at the one time is that it is said Mr. Raney will be opposed and we want to have the others over so as to be able to concentrate and get him elected. If the election of Mr. Drury

and Mr. Doherty will strengthen Mr. Raney, we want him to have this advantage, as there is so much objection to him reported."

It does not seem to have occurred to Mr. Grant that this is precisely the kind of political manoeuvring that the old parties were accused of practicing. If the three elections were called for the same day the people of each district would be able to vote independently on the general issues involved. What the Government are doing is to bring on the elections in Halton and Kent, where they feel assured of success, and then to use the prestige of their victories to influence the voters in the case of the third seat. For this purpose, and in order that the Government may concentrate their forces on the less certain seat—that is to say, for strictly party purposes—the principle of simultaneous polling is ignored, and the third election postponed to a convenient time. The sin is not one of the worst of those of which the old political parties were accused. But it is one that the new Government might have been expected to avoid.

Wilson and Bryan

REPUBLICAN critics hastened to proclaim that the proceedings of the Jackson Day dinner at Washington revealed a split between President Wilson and Mr. W. J. Bryan. Certainly the attitude of the President and that of his former Secretary of State are very materially different on what for the moment is the most prominent question in American politics. Mr. Wilson disappointed those who had expected him to make an announcement of his refusal to be a candidate for reelection. On that interesting point he was silent. His letter was largely devoted to the question of the ratification of the Peace Treaty, and there was no indication of willingness to accept reservations of any kind. His policy apparently was to stand by the treaty in its entirety, leave the responsibility for its rejection upon the shoulders of the Republicans and make the question an issue at the next election. Mr. Bryan, who is sometimes a dreamer, in this instance proved to be the more practical statesman. He sees, what is now apparent to everybody, that ratification of the treaty without reservations is impossible; he sees that such an appeal to the people as the President suggests would leave the question open for many months, during which the position of the United States would be one of much embarrassment; and to avoid such conditions he boldly advises the Democrats to accept such reservations as will enable the Senate to agree to ratification. There is a conflict between the advice of the President and that of Mr. Bryan. All the indications are that it is Mr. Bryan's course rather than Mr. Wilson's that will be followed, though not as quickly as Mr. Bryan desired. There is a vast amount of manoeuvring by both par-

ties at Washington to obtain a vantage ground. A few Republican extremists profess to be desirous of accepting the President's challenge and making the treaty an election issue. Below the surface, however, there is a growing feeling that nothing will be gained by further treatment of the question as one of party conflict. The "mild reservationists"—those who to save their face do not wish to give an unqualified approval of the treaty—are endeavoring to find forms of reservation which will be harmless, and they are likely to succeed in the end.

The emerging of Mr. Bryan at this time from comparative retirement places him again in the field as a possible Presidential candidate. His sensible advice respecting the treaty will commend him to many who have not in the past admired him. But prestige counts in a Presidential election, and Mr. Bryan's repeated defeats will prevent his recognition as a probable winner. Mr. Wilson's silence on Jackson Day on the question of his candidature is regarded by many as an indication that he still desires to be in the field. The reluctance of the Americans to allow any President a third term will operate against him. But as Democratic timber for the Presidency is not abundant, that reluctance may be overcome when the Democrats assemble in convention at San Francisco.

Dual Representation Revived

IN the first years of Confederation dual representation was quite common. A number of members sat both in the Parliament of the Dominion and the Legislature of a Province. In time this was found embarrassing and the practice was discouraged. In all the Legislatures, we believe, except that of Quebec, laws were passed against it. In Quebec the system fell into disuse, though no attempt was made to disqualify members who already had the dual privilege. The last survivor of the system was the venerable Mr. De Boucherville, at one time Premier of Quebec, who to the day of his death was a member of the Senate at Ottawa and also of the Legislative Council of his Province. It is somewhat surprising now to find the system revived. Hon. Mr. Chapais, an old member of the Legislative Council of Quebec, has been called to the Senate of Canada and has intimated his intention to hold a seat in both bodies. Mr. Chapais is a much respected public man, who was warmly congratulated on his appointment to the Senate by his colleagues of both parties in the Legislative Council. So far as he is personally concerned, no fault may be found with the appointment. Nevertheless, as a matter of principle, the retention of his seat in the Quebec Legislative Council is to be regretted. Half a century's experience in Canada has led most Canadians to the conclusion that the system of dual representation is not to be commended.

The Co-operative Movement

The Churches Are Getting Behind the Co-Operative Movement The Farmers of Canada Are United and Form a Powerful Organization—Progress in the United States.

By J. W. MACMILLAN

One of the great addresses at the recent Social welfare Congress of Canada was given by Rev. Dr. Worth M. Tippy, secretary of the Federal Council of Churches in the United States. Dr. Tippy had just returned from a visit to Europe, where he had been estimating the force of new social movements and the possible changes to be effected by them. His story of what he had seen and heard in Britain, Belgium, France, Holland, Germany and Russia was an impressive one. Not less impressive was his outline of the activities of the Council he represented. It was made plain that the "warring sects" of Protestantism in the United States are studying something else than war just now. They are uniting their resources of mind and wealth in a downright and vigorous endeavor to bring social justice and spiritual culture to the great mass of the people of their country.

Among other things which he said was "We are getting definitely behind the co-operative movement." Some may wonder what there is in the co-operative movement more than in many other movements to engage the sympathy of religious men, newly awakened to the vast needs of millions of their fellow beings. The devotee of any alleged remedy is apt to think that all men of goodwill should join his party. And the church, as being officially committed to unselfish ambitions, is constantly lashed and derided because its pulpits do not resound with the propaganda of single tax, socialism, guild socialism, peace offensives and what not. Why should the churches have chosen this one device for human amelioration rather than any of the others.

The Appeal of Co-operation

I do not suppose that the religious reason is to be identified with that which commonly moves the co-operators to join together in the formation of these societies. That is frankly an economic motive, to reduce the cost of living. No doubt these ecclesiastical leaders approve of the purpose and the means involved. They do not underrate the value of incomes, measured in terms of real wages. If co-operation were not successful in reducing the cost of the necessities of life, and thus increasing the spending and living range of the average family, income, these gentlemen would give it no certificate of approval. But that cannot be their chief motive in definitely putting the approval of the strongest religious organizations of the country upon the co-operative ventures which are being made.

The reason must rather be that they see in these organizations a realization of central Christian principles. They tend to unite their members for another purpose than that of battling with other organizations. That is to say, they are not propagators of class-antagonism and class-hatred. Further, they provide an education for their members in mutual service. That is to say, they are phenomena of brotherhood rather than of contest, of kindness rather than of enmity, and of union rather than of division.

Everybody knows that the man who frankly admits that he believes in goodness rather than in cleverness is likely to be sneered at as a simpleton or a hypocrite. The public will occasionally allow a man who has demonstrated his smartness to indulge himself in modest efforts to do good. But the man who comes on the stage and announces himself as a champion of goodness, first and last, is likely to lose his chance of a

favorable hearing. His talk is dubbed "Sunday school stuff." And everybody knows that a Sunday-school is a thing for all clever people to laugh at as being the very home and citadel of all that is weak, futile and illusory.

When the Good Man Makes Good

It must be confessed that the average man believes that goodness does not succeed. To be practical is to be not righteous overmuch. Of course he has his conventional standards, and there are things he will not do. But the missionary, the Sunday-school teacher and the parson are types which he does not love and admire. He thinks they are not masculine types.

Yet he will not deny that certain of the professedly good men have made good. He acknowledges the heroism of David Livingstone and Cardinal Mercier. He regards them as truly saintly, and reverences them as having been too good for this world. He does not consider them as men of his own kind at all. He apotheosizes them. And thus he loses what influence on his behaviour they might have exerted. He does not imitate them, for he thinks they are above his imitation.

Now, this clerical and ecclesiastical championship of the co-operative movements is an endeavor to further goodness among men. It is likely that it will fall of its end to some extent because of the prejudice against the churches. The average man will suspect that co-operation is not really clever, not likely to succeed in accomplishing anything economically worth while, or the churches would not have taken it up. He will be less apt to listen to invitations to join a co-operative society, and will harden himself in his conviction of the ineptitude of good men.

The Failure of Cleverness

Yet the average man, with his adoration of cleverness, might well be shaken in his self-confidence. He has had his way in business and government for a century, and the world has gotten into a desperate condition. Distraction, misery, mutual suspicion, wanton luxury, industrial strife and revolutionary plots cover the face of the civilized earth. The devotion and sacrifice of the war has given place to a wildness of behaviour and thought such as alarm and dismay us. The nations seem to be splitting into classes, each of which roars on the others, clamoring for privileges of which it claims it has been robbed. None thinks of his neighbor's good. The most unselfish, whose readiness for martyrdom none can doubt, are proclaiming flaming gospels of hate and destruction. The average man shows signs of recanting his creed of cleverness and substituting a hysterical zeal for violence. These men of the churches seem justified in concluding that cleverness has been tried and found wanting, and in venturing to disregard the flippant criticism of the discredited average man. They apparently think themselves justified in backing goodness as the hope of the world.

That is why, in my opinion, this united body of religious believers has found courage to step out before the world and say, "We are definitely behind the co-operative movement."

Co-operation in Canada.

There are two distinctions to be noted between co-operative societies and ordinary joint-stock corporations. At first sight these distinctions seem to be trifling affairs. Yet in them

is made evident the radical difference between organization for mutual service and organization for competitive profit. These two distinctions are, first, that the vote goes with the shareholder rather than with the share, and that the profits are awarded on the purchases rather than on the share-ownership. Each of these conserves the human interest for the co-operatives.

The farmers are the only body in Canada which have carried co-operation to large issues. The few co-operative ventures in the cities, for one reason or another, have not amounted to much. Thus it has resulted that the farmers have become a united, competent, and powerful body. It is not so long since there was little fellowship on the farms. But to-day every local in every township is alive and palpitating with a spirit of mutual service. Of course it will be said that the rural sections of the Dominion are peopled homogeneously, whereas the cities are not. The answer to that objection is that the city populations have chosen to emphasize the things which divide and array them against one another. Why should they not prefer to emphasize the things in which they have common interests? Why are all the organizations formulated on production lines? Why are there no consumer's organizations? Surely this has been a partial and one-sided development of community organization.

Progress in United States

One hears with surprise that within the last year or two many co-operative stores have sprung up in connection with industrial groups in the United States. The employees of the big hotels in New York have grouped themselves into co-operative associations for retail buying. The workers in the Interborough Transit Company have their co-operative store. One at least of the big head offices of the big Life Insurance Companies has the same thing in its midst. The railway unions in the middle west are essaying co-operation in its more venturesome form and are organizing factories. One will watch eagerly to see how a trades-union will deal with the wage question among its factory employees. Much good is likely to come out of that crucial experience.

All this has been about the United States. Our Canadian churches, while in some respects active in the industrial field, as witness the Catholic unions of Quebec and the resolutions adopted at the last General Conference of the Methodist Church, have as yet paid no official attention to the co-operative movement. But, as most of the social movements which reach Canada begin in Britain and reach us through the United States so may it be with co-operative societies. There are three million and a half members of co-operative societies in Britain. If we estimate five to a family that means that almost half the population is in it.

To Bring Branches to Canada.

The New York Sun has added to its Canadian enterprise by the establishment of a Canadian Industrial Bureau, which is situated in the building now entirely devoted to the Munsey interests at 280 Broadway. The object of this Bureau will be to supply information concerning Canadian towns and cities and the facilities which they offer for the establishment of new factories. The exchange situation and the preferential treatment accorded to Canadian exports in various parts of the world are stimulating a strong tendency on the part of American manufacturers to establish branches in Canada, and this new undertaking of the New York Sun is intended to facilitate such projects. Municipalities are invited to supply information.

Reciprocity At Washington

Report of U. S. Tariff Commission Shows That Field of 1911 Proposals Has Now Been Considerably Diminished By Tariff Changes.

The Third Annual Report of the United States Tariff Commission contains the following, under the heading, "The attempt to establish a reciprocity arrangement with Canada, 1911:"

"A report upon the proposed reciprocity agreement of 1911 between the United States and Canada, which is being prepared at the request of the Committee on Ways and Means, will contain an historical account of the negotiation of the agreement, a detailed analysis of the measure and a comparison of the rates proposed in 1911 with the then existing tariffs of the two countries and with the tariffs at present in force.

The analysis and discussion will show, with the aid of statistical tables, the importance of the trade between the two countries; the proportion of that trade which would have been affected if the reciprocity agreement had been ratified; the reductions in duties proposed for each country; the amount by which these reductions, on the part of Canada, would have been extended to other countries than the United States; the degree to which the United States tariff act of 1913 adopted reductions equivalent to those proposed in the agreement; the extent to which Canadian tariff amendments since 1911 have changed the rates upon imports into Canada; and the volume of trade that would be involved if the schedules of the reciprocity agreement were enacted to-day.

"The report will show that the provisions of the reciprocity agreement, at the date they were framed, would have resulted in considerably heavier reductions by the United States of the

comparatively high rates of Canada. Since 1911, however, the situation has been in large measure reversed, because of the adoption by the United States of extensive reductions in the rates on foodstuffs and raw materials, and the imposition by Canada, upon many manufactured articles of an additional war tax of 7½ per cent. This tax moreover, does not apply to imports from other parts of the British Empire, and constitutes for that reason an additional preference against products from the United States and other non-British countries. The report will show that, as a result the volume of imports into the United States that would to-day be affected by the inauguration of the agreement has decreased both absolutely and relatively; although the total imports from Canada into the United States during the same period, have greatly increased. In fact, duties upon flaxseed and hay are now the only rates of importance that would be reduced in the United States tariff by the adoption of the reciprocity agreement of 1911. On the other hand, the imports into Canada that would feel the effect of the agreement, have greatly increased in value. The decision of the Customs Court of Appeals relating to the present validity of section 2 of the United States statute of 1911 which embodied the agreement, the resolution offered in March 1919, in the Dominion House of Commons favouring the adoption by Canada of the reciprocity offer, and the similar resolution passed at the recent Liberal Party convention will be included in appendices to the report."

Increase Output of Tractors in Canada

It is estimated that the total output of farm tractors in the United States for the year 1919 will be 315,000, or more than double that of 1918, and nearly four times the number of these machines built in 1917. Yet, by those in close touch with the condition of demand for this form of farm power, this number is considered barely sufficient to fill a percentage of the orders on hand or likely to be received before next spring.

A proportional increase in the production of farm tractors has taken place in Canada within the same period, and here, as in the States, the demand is in excess of the supply; moreover, the increased demand here originates chiefly at home, while that made of the United States manufacturers comes largely from outside that country. As a matter of fact, the Americans consider their country—and rightly—the main source of world supply of farm tractors, yet they have to admit that their rate of production in that line is not sufficient to keep up with the world demand.

This being the case, it seems only reasonable that in the best interest of the farmers of Canada, and of the country as a whole, the Canadian manufacturer of farm tractors should be given every encouragement to increase their output so as to be able to meet the home demand and also compete with the manufacturers in the United States for the European and other foreign trade.

As compared with the tractors of the years before the war, those put out for use on our farms to-day are cheap, handy, and easily operated machines, that can be used economically on farms of 100 acres or even less. The old-time machines were big, unwieldy things, costing more than the average farmer could afford, and finally proved too expensive to operate even on such a scale as was possible on the big farms of the North West. For

the latest development in tractors the war was responsible on three counts; First, the labor saving made necessary by the number of farm workers engaged in military service; second, the insistent demand for increased production of crops on this continent in order to offset the shortage in Europe, and third, the increased effort made to develop traction machinery suitable for operation in warfare, which resulted in the development of, among other things, the caterpillar tractor, the principle of which is now applied so largely in the case of farm tractors.

Without the help of the tractor, it is a question if the present rate of production here could be maintained, despite the return of a certain number of combatants to the farms, and it is safe to say that an increased production is not to be thought of unless there is an increase in the output of farm tractors in Canada. Sufficient evidence of the interest in power farming was provided at the two big tractor demonstrations held at Ottawa and Chatham recently to encourage manufacturers to go ahead with enlarging their output, provided, of course, that the profit returned from the sale of the machines justifies that course.

Fight for Prince Rupert.

Vancouver, Jan. 12.—There is a lively legal battle under way between rival boards of directors and shareholders of the Prince Rupert Dry Dock & shipbuilding plant at Prince Rupert.

Mr. Newman Erb of New York, head of many industrial corporations and railways, has secured an interim injunction, and is on his way to Prince Rupert in his private car via the C. N. R. and G. T. P. Railways.

The order of the court re-instates Mr. Erb and his associates in possession of the big plant, which has been in possession of Mr. A. M. Manson of the legal firm of Williams & Manson, of Prince Rupert, and his associates for some weeks past.

The interim injunction is good until Tuesday morning, January 13th, when the question of its continuance will be argued at Victoria.

It is understood that Mr. J. L. Mullen, of the J. L. Mullen Construction Co. of Pittsburg, was the original organizer of the company formed to operate the dry dock and shipbuilding plant at Prince Rupert, which was built by the Grand Trunk Pacific under a government subsidy, and which has lain idle for many months previous to the shipbuilding company taking hold of it on a lease from the Grand Trunk Pacific. Not having sufficient funds to swing the venture, Mr. Mullen approached Mr. Erb, and it is understood he agreed to give Mr. Erb fifty one per cent of the stock in consideration of his financing the proposition, which Mr. Erb agreed to do. Mr. Mullen meantime had secured a contract from the Government for two steel ships, which are now under construction.

The Prince Rupert Dry Dock and Engineering Co., Ltd., started building the two ships at the time the Duke of Devonshire visited Prince Rupert, the first keel being laid at that time. The second a month later. At the present time about half of the bottom plates have been laid. Practically all the material is on the ground for the construction of the ships.

Apparently the whole matter is a question of finance. Meantime the work on two much needed ships is going ahead very slowly.

The Grand Trunk Steamship Company's steamer is now in the dry dock, and is being overhauled.

News of the Week.

R. T. Mussen, for several years manager of the local branch of The Bank of Commerce at Stratford was tendered a banquet by the citizens of the town on the occasion of his leaving the active service of the bank.

The Canadian Steamship Lines announce the sailings to France of the new Fracanda Line from West St. John, N. B. Feb. 24; S. S. Wisley via Bordeaux; Feb. 7, S. S. Bilbster via Havre; Feb. 14, S. S. Mississippi via Havre.

Deaths of the Week.

Mr. Edwin Utley, Fellow of the College of Public Accountants, for many years a well-known chartered accountant in Toronto, died this week at the age of 78. A native of London, England, the late Mr. Utley spent his earlier life as a chartered accountant in England, and before coming to Canada was a Fellow of the College of Chartered Accountants of London.

Mr. R. H. Temple, the first president of the Toronto Stock Exchange, died at his home this week in Toronto, in his 79th year. Born in Quebec in 1841, he studied law there, forsaking it later for the civil service. He resided at Ottawa for some time, and on being transferred to Toronto in 1870 he became a stock broker, retiring from active work some ten years ago.

Want Agents' Fee Raised

Toronto insurance men may request the Ontario Government to increase the license fee charged to insurance agents. The present fee of \$3.00, which covers both fire and life business, is too small and results in many men taking out licensee just to secure commissions on a few policies written for intimate friends. The regular agent is therefore deprived of a certain amount of business which would naturally come to him if the agent's fee was made high enough to make it unprofitable for the casual agent to take out a license.

Saved by Uninflated Wages

Why Was Belgium the First European Country to Recover?—
Because Her Workmen, Under Hostile Occupation, Never
Received the Abnormal Wages of the "Munition Boom"

The remarkable resumption of Belgium's coal mining, the complete reorganization of her transportation system, the determined progress of her wrecked steel industry, the resurrection of the great port of Antwerp, the recovery of \$600,000,000 worth of machinery stolen by Germany, the firm and orderly adjustment of her labor problems, the repopulating of her textile mills, and her re-entry into world finance as one of the great trading nations—these are some of the bolder out-lines in a sketch of New Belgium, entitled "Belgium's Recovery," just written by D. L. Blount, an American who until recently directed the central information office of the Belgian Ministry of Economic Affairs. This booklet, issued in connection with the placing of a \$25,000,000 loan in this country by the Belgian Government, tells a story paralleled only by the historic recovery of France after the war of 1870.

The degree of Belgium's recovery must be measured by the purposeful and scientific destruction Germany inflicted on her. Her factories were not merely wrecked. The Germans destroyed them in such a way as to make their rebuilding peculiarly difficult, and to eliminate their competition entirely after the war. This is the key to Mr. Blount's interpretation of the new Belgium.

"The most striking figures," says Mr. Blount, "of the actual resumption of Belgian industry for the first ten months of 1919 as compared with those for the corresponding period of 1913 are the following: Coal mines, 94 per cent; refined sugar, 100 per cent; cotton spindles in operation, 75 per cent; cotton looms, 40 per cent; wool products, 75 per cent; shoes, 70 per cent; window glass, 34 per cent; plate glass 36 per cent. Even the steel mills, which suffered most, have resumed 30 per cent."

First fuel, and then transportation: these are the dominant influences in Belgium's recovery. Of the Belgian coal situation, Mr. Blount writes:

"Coal production in October was 79 per cent of normal, figures for October last being 1,884,740 tons. During the first nine months of 1919 Belgium exported 2,970,871 long tons. These exports have been made on a basis of reciprocity."

Transportation Entirely Made Over.

With a total of 5,400 miles, Belgium had the greatest railway mileage of any country in proportion to territory. Of this, 1,366 miles of standard gauge track had been destroyed at the time of the armistice, and more than 1,400 bridges. Yet, says Mr. Blount, "all but 36 miles of track, rendered useless by the devastation of the adjacent area, has been reconstructed. So rapid has been the work of repair that there is practically no vestige of the war on the roadbeds of Belgium and, furthermore, great extension work has been carried on. There has been a steady reclaiming of rolling stock from Germany, although much of it was in very bad condition, and together with what was left of the former Belgian rolling stock requires constant repairing. Notwithstanding these difficulties, in September last, 40 per cent of the passenger service and 50 per cent of the pre-war freight traffic had been resumed."

No less important in Mr. Blount's analysis is the Belgian steel situation, of which he says: "The effort which Belgium is making to regain her position as a large exporter of steel products (she exported before the war 79 per cent of her production) is shown by the fact that in the first nine months of 1919 she shipped abroad 92,000 long tons, the exports for September alone be-

ing 46,000 long tons. Comparison of certain figures for October last with those for the corresponding month of 1913 shows the following percentage of resumption: Cast iron, 18 per cent; iron or steel wire and rods, 35 per cent; nails, 55 per cent."

Agriculture Again Flourishing.

Belgium, so frequently called the "kitchen garden of northern Europe" is once more in a strong position agriculturally. Belgium's soil used to yield on an average about \$100 per acre; greater than any other country. Three fifths of her total area was under cultivation. According to Mr. Blount not more than one per cent of her total area come under actual devastation from trench warfare, and a recent governmental appropriation of 40,000,000 francs has given a great impetus to the restoration of even this comparatively small district near the "last ditch of the Yser."

With agriculture, coal and steel ranks the textile industry of Belgium. Among the important statistics noted by Mr. Blount, we find that the cotton mills have obtained 75 per cent of their pre-war capacity. "Wages have been increased 150 per cent. About 90 per cent of the workmen are unionized and a spirit of satisfaction seems to prevail among them. Mills are booked well ahead with orders, including shipments to Holland, England, France and South America—45

per cent of Belgium's textiles were exported before the war." The flax spinning and weaving mills of Flanders have resumed about 50 per cent the woolen mills about 75 per cent.

Zinc and window glass, both very profitable, have likewise come back in very gratifying ratios, and behind all of Belgium's domestic strength ranges the great potential wealth of her holdings, 80 times as large as Belgium proper, is so great according to Mr. Blount, "as to make all speculation seems paltry."

Few countries have had less difficulty than Belgium in adjusting their post-war labor problems, first, explains Mr. Blount, because "the Belgian laborer did not receive the high war wages which munition workers obtained in other allied countries during four years, and the passing of the war has meant to him an increase in wages rather than a threatened reduction to a scale in keeping with the new conditions. Second, the high cost of living has not affected the laborer in Belgium in the same degree as in other countries, owing to his natural thrift and to the remarkable organization of Belgian co-operative societies."

Finances.

The net result of Belgium's pre-war conservatism, and of her rapid recovery since the armistice, is to place her finances in an unusually favorable position, which Mr. Blount explains in detail, continuing: "On June 24, 1919, the Council of Five signed an agreement giving formal approval to priority for Belgium to the amount of 2,500,000,000 gold francs (\$482,000,000) out of the reparation to be paid by Germany. Of this, it is understood that Belgium will use \$227,000,000 toward the repayment of \$252,000,000 advanced to her by Great Britain, France and the United States since the Armistice."

Montreal Holds Second Place

Commenting on the ten leading American ports, the Port of New York Annual, just published, says: "An interesting point is the fact that Montreal, if a port of the United States, would rank second, or next to New York, the value of her foreign commerce now exceeding \$700,000,000 in value. As it is, Montreal holds second position in the value of her foreign commerce among the ports of the North American continent."

The leading feature of the 1919 edition of the "Port of New York Annual" is a comprehensive presentation of the known details of the plan to revolutionize the control and administration of the Port of New York, by placing it in the hands of a bi-State Commission, all of which will be threshed out by the Legislatures of New York and New Jersey this year. If the scheme goes through as advocated by the leading commercial organization—Chamber of Commerce and Merchants' Association—it will make a permanent bi-State Commission of the existing temporary New York, New Jersey Port and Harbor Development Commission, consisting of three New Yorkers and three New Jerseyites. The "Port of New York" is neutral as to the undertaking, and gives the arguments for and against it impartially, in order that those interested may be informed as to what is intended in respect to the change in port control before it is consummated.

Apropos of the interest being taken just now in the question of the canalization of the St. Lawrence, the following item taken from the "Port of New York Annual" for 1919, is of timely interest. On the subject of incomparably cheap water transportation, it says: "It is regrettable that, as yet, so few comparatively, realize what these canals mean to New York, and the country. An astounding illustration of its influence is revealed in a demonstration of what it can do. Lumber

from Seattle on the far northwest Pacific coast, may be carried by steamer down the Pacific coast, through the Panama canal, up the Atlantic coast to New York, thence nearly 2,000 miles inland via the Hudson river, Erie canal and Great Lakes and via rail to points on an average 500 miles west of the Mississippi River before the cost of water transportation will equal the cost of a haul by rail directly eastward from Seattle over the mountains to the same point."

A Speaking Voice.

The latest figures on Canada's war casualties are 212,703, or nearly 3 per cent of her population of 8,000,000. Of these 63,843 are dead. Yet there are "Americans" who think Canada should have no voice in the League of Nations!—Commerce and Finance, New York.

Montreal-Sherbrooke Service Via Grand Trunk Railway System.

The Montreal-Sherbrooke service of the Grand Trunk Railway System provides a choice of convenient trains. Travellers may leave Montreal 8.30 a.m. and 8.20 p.m. daily and 4.16 p.m. daily except Sunday. There is a parlor cafe car on the 8.30 a.m. train and parlor car on the 4.16 p.m. train. Returning the traveller may leave Sherbrooke at 3.15 a.m. and 3.00 p.m. daily and 8.05 a.m. daily except Sunday. The 3.15 a.m. train has sleeping car for Montreal which is ready for occupancy at Sherbrooke at 10.00 p.m. the previous evening. The 3.00 p.m. train has cafe parlor car.

International Trade of Canada

Big Rise in Value of Fish Caught

A preliminary report on the Fisheries of Canada for the year 1918 has just been issued by the Dominion Bureau of Statistics.

Sea Fish Caught and Landed

The total value of the catch of the sea fisheries of Canada in 1918 to fishermen at the point of landing was \$32,741,998 as compared with \$29,373,022 in 1917. The quantity and value of the principal commercial fishes landed in 1918 were as follows:

	cwt.	\$
Salmon	1,529,925	9,378,018
Cod	2,206,666	7,867,670
Halibut	207,139	3,131,651
Herring	1,764,223	2,295,611
Lobsters	264,096	2,123,406
Haddock	554,366	1,851,137
Sardines	295,770	1,479,050
Mackerel	196,779	1,354,400

By provinces British Columbia leads with a catch valued at \$13,632,828 followed by Nova Scotia with \$10,759,974, New Brunswick with \$4,241,773, Quebec with \$3,255,182, and Prince Edward Island with \$822,241.

Fish and Fish Products Marketed

The total value of the fish marketed fresh and prepared for all Canada was \$61,363,502, as compared with \$52,312,044* in 1917. Of the total value of fish marketed in 1918, the inland fisheries of the provinces of New Brunswick, Quebec, Ontario, the Prairie Provinces and the Yukon, contributed \$6,000,000.

The quantities and values of fish marketed fresh, by principal varieties were:

Sea Fisheries.

	cwt.	\$
Halibut	203,379	6,448,544
Salmon	291,896	3,571,865
Lobsters	59,251	1,273,247
Cod	202,235	1,207,758
Smelts	94,158	1,046,153
Mackerel	106,804	959,302
Haddock	191,596	950,845
Herring	181,576	508,937
	bb1.	
Sardines	218,515	1,092,525

Inland Fisheries

	cwt.	\$
Whitefish	199,623	1,884,728
Herring	201,813	993,293
Trout	72,186	716,882

* It should be noted, however, that British Columbia fish landed by United States fishing vessels are included with the 1918 total, and not with the figure for 1917. In 1917 halibut to the value of \$1,604,081, cod \$18,053, and salmon \$2,576 were landed by U. S. vessels and should be added to the total value for 1917 for purposes of comparison with 1918.

Canned fish products which totalled 2,107,462 cases, valued at \$18,683,759 comprised:—

	cases	\$
Salmon	1,633,849	14,067,249
Lobsters	107,812	2,244,690
Sardines	177,193	1,227,988
Herrings	73,060	421,399
Pilchards	63,693	336,225
Haddock	28,360	227,107
Clams & Quahaugs	16,809	101,990
Miscellaneous	6,686	57,111

The principal varieties of fish marketed green-salted, dried, smoked, boneless and pickled, by values were:

Sea Fisheries.

	\$
Cod	8,868,909
Haddock	1,618,219
Herring	2,731,471
Mackerel	960,181
Hake and Cusk	791,594
Pollock	544,444

Among the miscellaneous products were 1,317,445 gallons of whale oil valued at \$1,175,437, and 457,870 gallons of fish oil valued at \$457,483.

The values of fish and fish products marketed by provinces are as follows:

Sea Fisheries.

	\$
British Columbia	28,329,501
Nova Scotia	15,183,949
New Brunswick	6,305,168
Quebec	4,395,756
Prince Edward Island	1,148,201
Total Sea Fisheries	55,362,575

Inland Fisheries.

Ontario	3,175,104
Manitoba	1,820,157
Saskatchewan	447,012
Alberta	318,913
Quebec	173,193
Yukon	37,820
New Brunswick	28,728
Total Inland Fisheries	6,000,927

Total for Dominion 61,363,502

	1918	1917
	No.	No.

The report shows that 939 factories were in operation in 1918 as compared with 982 in 1917, classified as follows:

Lobster Canneries	534	610
Salmon "	81	89
Sardine "	3	2
Cam & other fish canneries	14	12
Whale oil factories	4	1
Fish oil factory	1	—
Fish curing establishments	302	268

The Leviathan For Sale

It is announced at New York that the great ex-German ship once known as the Vaterland and since renamed the Leviathan is for sale by the United States Shipping Board. In addition to the Leviathan a number of other vessels are being offered. One of the principal bidders for these ships is the International Mercantile Marine Company.

In view of the fact that the purchasers of the German ships will have to spend a tremendous amount of money to put them in condition for commercial services, it is believed that the bids will be low. Whether the Shipping Board feels that they are too low to consider their sale is a matter to be determined at the first regular meeting. The interpretations placed on the bids will be watched closely, as some have felt that the hurried sale of the liners was not called for the sincere purpose of disposing of the ships, but for the idea of stimulating propaganda regarding the upreadiness of the American companies to absorb the Government owned fleet.

Export Rates on Pacific Coast.

At a hearing before the Canadian Railroad Commission in Ottawa on January 7, which was attended by many American exporters, a decision was rendered by the Commission that Export Tariff 9-B, effective January 16 from Eastern Canadian points, would be suspended. Tariff 9-B, if permitted to go into effect, would cancel the export rates from Eastern Canadian points to Seattle and Tacoma, and the result would be that the Canadian shippers of traffic via Pacific Coast to the Far East would be confined to the port of Vancouver. The suspension of the tariff means the continuation of the present arrangement where traffic from Eastern Canada is permitted to move via Seattle, Tacoma or Vancouver at equal railroad rates for each of these three ports when destined to the Far East.

New General Manager of Confederation Life

At a meeting of the board of directors of the Confederation Life Association, held on Friday, January 14th, Mr. Charles Strange MacDonald was appointed general manager of the Company.

Mr. MacDonald, who is a son of the President, Mr. J. K. MacDonald, has been in the service of the Confederation Life Association for some twenty-one years. He is a graduate of the University of Toronto, 1898, with the degree of M.A. After graduation, he entered the actuarial department of the company, and in August 1907, he was appointed assistant actuary, which position he held for some years. In 1914, he was appointed assistant superintendent of agents, and spent several years in field work. For some months, he has been acting as assistant to the president, and his long and varied experience in the different departments of the company should qualify him for the important position to which the directors have appointed him.

Dividend Notices

BANK OF MONTREAL

NOTICE is hereby given that a DIVIDEND of THREE per cent. upon the paid up Capital Stock of this Institution has been declared for the current quarter payable on and after Monday, the FIRST DAY OF MARCH next, to Shareholders of record of 31st January, 1920.

By order of the Board,
 FREDERICK WILLIAMS-TAYLOR,
 General Manager.
 Montreal, 20th January, 1920.

The Bank of Nova Scotia

Notice is hereby given that the Annual General Meeting of the Shareholders of this Bank will be held in the Banking House, Hollis Street, Halifax, on Wednesday, the 28th January next, at eleven o'clock a.m., for the purpose of receiving a statement of the affairs of the Bank, for the election of Directors and for other business.

By order of the Board,
 H. A. RICHARDSON,
 General Manager.
 Halifax, N. S., December 15th, 1919.

The Merchants Bank of Canada

QUARTERLY DIVIDEND

Notice is hereby given that a dividend of THREE per cent for the current quarter, being at the rate of TWELVE per cent per annum, upon the Paid-up Capital Stock of this Institution, has been declared, and will be payable at its Banking House in this city and at its Branches on and after the 2nd day of February next to Shareholders of record at the close of business on the 15th day of January.

By order of the Board,
 D. C. MACAROW,
 General Manager.
 Montreal, 23rd December, 1919.

CHEMICAL INDUSTRY OF CANADA

The chemical industry was war's first conscript. The energies of the industry were turned to the production of explosives, detergents, substitutes, drugs, medicines, antiseptics, disinfectants and foods. These had to be turned out in special forms suitable for army use.

Large output and rapid service were the governing factors—price was secondary. During the war it was questioned whether the industry would survive. Now there is no doubt but that Canadian chemistry is ready to compete on the world's markets. Our producers have been in touch with consumers when consumers were willing to overlook plans and try out new materials.

Canada has done well in chemical production. The total value of chemical products has almost doubled since 1910. In that year, the drug and chemical production of Canada was valued at \$3,360,000. In 1915 the production was \$5,396,000.*

It's about as easy for an amateur to put trade statistics together as it is to make a chair legs all touch the floor. Any disparity in these figures need not be regarded as due to carelessness on any part, but as resulting from the usual difficulties of the work; for instance, we find that calcium carbide was not included above. This would add more than a million to the showing for 1915.

We are prone to think the "Blue Books" very dry and uninteresting but thrilling facts and surprises shine from almost every page. The following sketch (chart 1,) is from figures given in the "Report" for 1916 of the Department of Trade and Commerce.

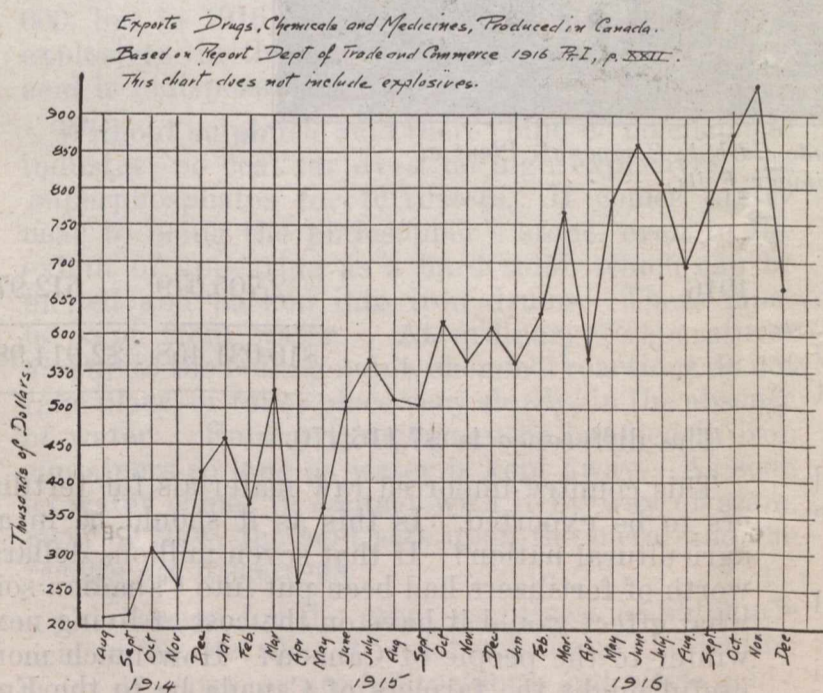
Chart II is based on figures given in the reports of the Department for the years 1904 and 1916.

It is to be noted that this does not include explosives. While much of the increase was due to war conditions, the products were none the less Canadian, and the increased capacity of Canadian factories assures an augmented output now that the war is over. The total amount of chemicals manufactured in Canada may only with difficulty be computed, for the reason that industries often make in large quantities materials they need for their own use. Many paper and pulp mills manufacture their own bleaching materials. When it is noted that sulphite pulp requires for its bleaching about eight per cent of its weight of bleaching powder, it can readily be seen that the paper trade will absorb a huge amount of bleach which will not appear in the trade reports. The same is true of sulphuric and nitric acids in the explosives industry.

The wealth of Canada is derived naturally from four sources: fields, forests, mines and water powers. These great assets, give her the assurance of leadership, but only on one condition: that they be well handled. That term implies a sense of stewardship in raw materials, education and opportunity not readily awakened in a pioneer people, with an idea that democracy means individualism.

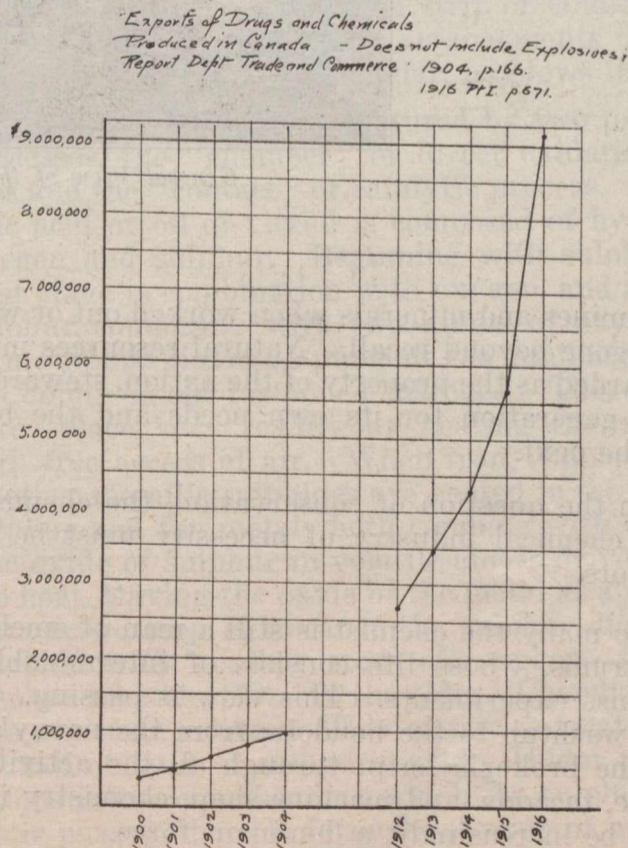
To the end of the nineteenth century, a large proportion of the products of Canada resources was exported as raw materials. One of the reasons for this state of affairs was the failure to appreciate the great economic loss entailed by the sending away of

Chart I.



* (The writer is indebted to the Dept. of trade and Commerce not only for information, but for its prompt and courteous attention.)

Chart II



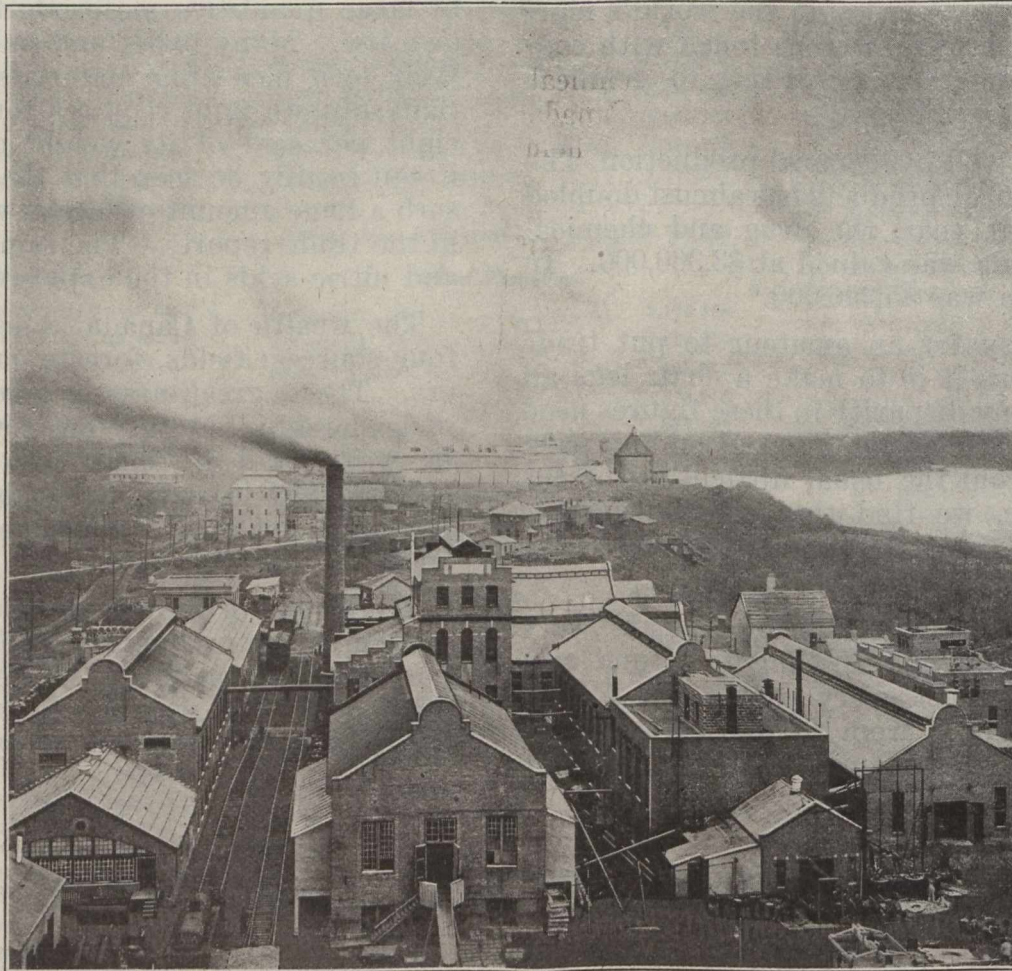
the national wealth in this form. It should be manufactured into finished products in the country of origin.

For many years Canada lived on her principal. She lately came to take stock of her remaining resources, and is endeavouring to conserve, and get the full value increment from them. In exploiting the resources of a country, its future needs, as well as its present market, should be borne in mind.

J. J. Hill stated as one of the principles of conservation that it was advisable to utilize the resources of other nations when economically possible, buying raw materials outside and exporting finished articles. This applies especially to mines and mineral products. Products of field and forest may be replaced in a couple of generations or less,

Canada has, roughly, two persons per square mile. She must, perforce, be an agricultural country. What of chemicals here? Fertilizers come to mind at once. They must contain nitrogen in the forms of nitrates and ammonia; potassium in the form of potassium chloride; phosphorous in the form of phosphate of lime, carefully blended and so made that they will keep without deterioration. Canada's trade in manufactured fertilizers for the five years up to 1916 was:—

	Exports.	Imports.
1912	\$ 944,980	\$ 445,383
1913	1,677,703	539,905
1914	2,539,789	602,142
1915	2,163,917	714,584



General View of the Canada Carbide Company's Plant at Shawinigan Falls.

but mines and minerals when worked out or wasted, are gone beyond recall. Natural resources must be regarded as the property of the nation, stewarded by one generation for its own needs and the benefit of the next.

In the question of conservation, the chemist and the chemical industry of necessity must be prime factors.

To many the chemist is still a man of smells and nostrums, whose life consists of interminable hit-or-miss experiments. This view is passing. From the washtub to the boudoir; from the navy's pick to the broker's scrip; through all the activities of mine, meadow and machine-shop, chemistry is, and will be increasingly, a dominant force.

1916	2,705,079	612,974
	<u>\$10,031,458</u>	<u>\$2,914,988</u>

The difference is \$7,116,470.

This country imported raw materials for fertilizers to be exported. Is this as it should be in an agricultural nation? If that seven millions dollars' worth of fertilizers had been put into Canadian soil, what effect would it have on the cost of living next winter to the people of Canada? How much more useful might the farmers of Canada be to the Empire?

Canada has forty per cent of the world's water power. The atmosphere is four-fifths nitrogen. This

nitrogen is chemically inert, but with proper application of electric power, nitrogen can be fixed and made available for fertilizers. The country with an abundant supply of nitrogen compounds is assured a place in the front rank because nitrogen is a most important element in the chemical complexities which are essential to the growth and development of animals and plants.

A little boy appeared recently at the counter of a reference library, informed the librarian that he was to write a composition on "Woman," and wanted to know where to begin. Anyone who tries to say something about the chemical industry of Canada, past, present and future, within the bounds of two to fifteen pages can sympathise with both the boy and the librarian. We must go at it as a commuter takes his breakfast, and trust to luck for digestion. There is before us a little pamphlet entitled "The Chemists of Canada," prepared by the Society of Chemical Industry for Imperial purposes while the war was going on. It contains the names of three hundred and twenty-five men, all technically interested in the chemical industries of Canada. We must, therefore have some fair trade in chemicals to concern these gentlemen. To this list may be added probably as many more who after the years of war have qualified by intensified experience. Of the commoner chemicals, we might look briefly at four representative compounds:—

Sulphuric Acid. Potash. Soda, Calcium Carbide.
Sulphuric Acid Imported—

1912	1913	1914	1915	1916
\$15,027	\$29,884	\$4,789	\$6,357	\$42,159

Sulphuric Acid Exported—

1912	1913	1914	1915	1916
.....	\$37,413	\$41,335	\$194,026

The point to note here is the swing over from debtor status to that of creditor. This is due to European War needs, but having acquired equipment for such an output, we should be able to use it in our expanding industries, now that the war is over. The total export of sulphuric acid is less than \$200,000, but in 1916 we exported \$80,800,000 worth of explosives, in the manufacture of which sulphuric acid is indispensable.

Without sulphuric acid there could be no chemical industry; no coal tar dyes, no high explosives, no superphosphates for fertilizers. It comes pretty near to being the philosopher's stone, even to the extent of appearing as a hard solid, which can be melted and packed into iron drums. These must be kept from water. At ordinary temperatures and up to the boiling point, chemical reactions do not take place, or takes place very slowly, in the absence of water. Sulphuric acid may be handled in iron containers so long as water is kept away. As soon as water comes in contact with it by way of seam, rivet or flaw, the acid acts upon the metal and the results are disastrous.

One reason for the great usefulness of sulphuric acid is the fact that it is not volatile at the boiling point of water, as are hydrochloric and nitric acids, for instance, and thus can be employed to liberate these more volatile acids from their compounds. When it acts upon common salt (sodium chloride) which contains the two elements, sodium and chlor-

ine, it separates them: one is volatile and the other is not. It is a comparatively simple matter to drive out the volatile chlorine and take its place; the result is the formation of sodium sulphate called "salt cake," and hydrochloric acid, called in early days "spirits of salt."

This reaction between sulphuric acid and salt is the beginning of a great chain of reactions, producing, among other things: washing and baking soda, soda lye, soap, bleaching powder, glycerine, hydrochloric acid—each in turn being the starting point of some other series of important products.

Common salt can be obtained by evaporation of sea water and the purification of the resultant crystals. It is found in mines at certain points, Canada has large deposits of salt in the district near Windsor, Sarnia and London, Ontario, and quite recently an alkali industry has been established near Windsor producing chlorine and soda compounds, these we refer to later.

Canadian Sources of Supply. Sulphuric acid is derived from three sources, native sulphur, mineral sulphides and waste gases in metallurgical operations. In Canada we would have to deal with the two latter sources as we have no source of native sulphur. We have large deposits of iron, nickel and copper pyrites. These minerals contain in combination great quantities of sulphur. The sulphur must be gotten out to obtain the metals. This is done by roasting the pyrites with a supply of air, producing an oxide of sulphur which is later further treated, the resulting compound being sulphuric acid. In the nickel industry thousands of tons of prospective sulphuric acid are wasted because no attempt has been made to recover the sulphur dioxide driven off in roasting the nickel ores. Much sulphuric acid is now being made in Canada for use in the manufacture of nitrocellulose and nitroglycerine, the chief constituents of smokeless powder, cordite and dynamite. The last is not used for military purposes but in mining and quarrying. Increased amounts are coming into use for clearing land of stumps and large boulders. The modern farmer does not waste a good strip of land and upset his plowing and reaping arrangements to work around an old stump or boulder, he blows it up!

Sulphuric acid is manufactured by two principal processes, the "chamber" or direct oxidation process and the "contact" or catalytic process. Sulphuric acid or oil of vitriol is composed of hydrogen, oxygen and sulphur. Beginning with sulphur the first stage is combination with oxygen, and atom of sulphur combining with two atoms of oxygen, to form sulphur dioxide, a pungent gas familiar to all in the odour of old fashioned matches. This process takes place very readily by heating the sulphur with free access of air. When iron, copper, nickel or other metallic sulphides are heated in the air, the sulphur and the metals both combine with oxygen. The oxide of sulphur is volatile and is driven out by the heat, leaving the oxide of the metal as a residue. The second step is to cause the sulphur dioxide to combine with another atom of oxygen, forming sulphur trioxide, SO₃. In the older "Chamber" process a nitrate is used. This nitrate is treated with a small amount of sulphuric acid. Under the conditions in the chamber into which the sulphur dioxide is passed, there is formed an oxide of nitrogen,

some of the oxygen of which is readily parted with to combine with the sulphur dioxide and form sulphur trioxide. The nitrogen oxide can readily be made to combine with more oxygen which in turn is again given up to the sulphur oxide, so that much sulphuric acid is made with very small quantities of nitrate. Finally, sulphuric acid is formed from the sulphur trioxide by the addition of water. The "contact" process required also that the sulphur dioxide be prepared, but the next step is based on an interesting phenomenon known as catalysis (derived from a Greek work meaning an unloosening) whereby a small amount of some substance is capable of facilitating chemical combination between two other substances without being itself altered in composition. Sulphur dioxide and oxygen unite slowly at high temperatures



JOHN S. BATES,

Formerly Superintendent of Forest Products Laboratory in Montreal; now with Price Brothers.

(about 530° Centigrade) to form sulphur trioxide. The mere presence of very finely divided platinum, known as "Platinum black" greatly accelerates this reaction. Several other substances have a similar effect. This process for making sulphuric acid is very closely controlled by patents covering details of process and manipulation.

In our salt wells and pyrites deposits, we have three elements which are at the base of all chemical industries: sodium, chlorine and sulphur. We have cotton mills, glass factories, paper and pulp mills; providing a market for soda ash to make glass, caustic soda to cook wood for pulp, bleaching powder to bleach cotton and wood pulp, and sulphur to use as sulphurous acid for sulphite liquors in pulp mills, or to be made into sulphuric acid for manufacture of explosives, fertilizers and many other compounds.

Potash. When we come to potash, we find a difference state of affairs. Potash is important as a constituent of fertilizers and gun-powder—among other things. A certain amount of potash is found in the ash of wood—more in hard wood than in soft. Up to about thirty years ago, the collection of wood ashes was quite an established industry in Ontario and Quebec. The ashes were brought to a center and then shipped to Montreal for export. The discovery and exploitation of the immense deposits of soluble potash salts at Stassfurt in Germany rapidly took the market away from wood ashes. When war was declared in 1914, and the German deposits were no longer available, there was renewed activity in search for potash elsewhere. The United States and Canadian Governments had been searching for such deposits for some time. Several minerals contain potash, but none rival the German mines for ease of working and abundance. We have in Canada very large deposits of a mineral called feldspar which contains potash. This is not in a form soluble in water, and a number of patents has been issued, covering methods of extraction of the potash and preparation of the soluble chloride of potash, so much needed in the manufacture of fertilizers. A plant for making potassium chloride is just commencing operations in Canada, after much experimentation. The old wood ash industry, is to some extent, revived, and potash from this source is being marketed here, but the denudation of forests in the more settled districts renders the work more difficult than it was. In fact, only the present high price of potash salts makes it practicable. The potash is obtained in the form of crude potassium carbonate by evaporating the aqueous solution, drawn off after treating the ashes with water, and allowing the sediment to settle.

One process for making potassium chlorine from feldspar which is announced to be developed in Canada is that of Grauel, and is described as follows:

"The process, which is protected, consists in heating to a high temperature in a blast furnace, 110 tons of a mixture of feldspar, coal, calcium chloride and limestone. The limestone is used to render the slag fluid, while the chlorine of the calcium chloride combines with the potash, forming potassium chloride, which distills over at the temperature of the blast furnace into a condenser where it meets a current of steam in which it dissolves. By a process of evaporation and crystallization of the solution thus obtained, the salt is obtained in a high state of purity."

The preliminary tests of this process were carried out it is said on a large scale and the management feels very confident of success. It has also been found that soluble potash compounds are present in the fine dust incidental to the manufacture of cement and this source is now making a respectable addition to the potash supply.

Fortunately, a similar element sodium is in many ways equally important and of this element there is an abundance in sea water as sodium chloride, common salt. In some places large deposits of salt are found, probably concentrations due to the drying up of prehistoric seas. Several of these deposits are developed in Canada, in central Ontario.

Drills are put down to the salt bed and a double pipe is placed in the bore, one pipe inside the other. Hot water is pumped down the outer pipe and a sat-

urated solution of salt is pumped up. This brine is evaporated and the salt is recovered in a very pure state.

Sodium chloride is not only used as such, but is the basis of the alkali industry.

Caustic soda was made previously by treating carbonate of soda with slaked lime. This reaction required that the crude carbonate of soda, soda ash, should be made first. To-day calcium chloride is subjected to the action of the electric current which breaks it up into its elements chlorine and sodium. The latter element combines with the water present in the cell forming caustic soda. If it is desired to form soda crystals known as Sal Soda "washing soda" the sodium may be treated with steam and carbon dioxide, (carbonic acid gas) forming an exceedingly pure commercial product.

Sodium sulphate occurs naturally, but as large quantities known as "salt cake" are produced in the manufacture of hydrochloric acid by the action of sulphuric acid on salt, and as "nitre cake" in the manufacture of nitric acid from sodium nitrate, the natural compound is not used to any extent.

"Salt Cake" is used for the preparation of sodium carbonate by what is known as the "Leblanc" process. It is fused with coal and limestone. The resulting mass is called "black ash" which is treated with water and the lye produced is filtered out and crystallized by evaporation.

The chlorine gas, obtained by the electrolysis of sodium chloride, is passed over slaked lime spread out in thin layers, producing "bleaching" powder—so called "chloride of lime." Prior to the outbreak of war, Canadian industries imported (1913) about \$400,000 worth of caustic soda and chloride of lime. With the increasing demand for these and other sodium salts, and using our own deposits it should not be necessary for us to import any of these compounds. Canadian companies are now producing caustic soda, carbonate of soda and bleaching powder,

Calcium Carbide. In calcium carbide we have a Canadian chemical. It was first made commercially by Thomas L. Wilson, at St. Catharines, Ontario.

Calcium carbide is made by treating a mixture of ground coke and limestone in a electric furnace. When calcium carbide is brought into contact with water, acetylene gas is given off. This gas contains in its molecule a high proportion of carbon.

When it is lighted in the air, a very luminous flame is produced by the liberation and incandescence of the carbon particles. If compressed air or oxygen be mixed with the gas before ignition, it gives an intensely hot flame, and so we have the oxy-acetylene blowpipe, of inestimable value for welding, brazing and cutting of metals. Large steel beams are cut in a few minutes by the localized melting of the metal at the point of contact. Aluminum castings, which present unusual difficulty in welding, because of the great conductivity of the metal, are readily welded by the use of the oxy-acetylene flame. The air service of the war would have been almost out of the question without its help.

The manufacture of carbide is probably the most important Canadian Chemical achievement—When owing to requirements of acetylene with which to produce war chemicals, a hitherto unheard-of de-

mand for acetylene was created, the Canada Carbide Company was faced with the serious problem of supplying this gas in quantities never before attempted. But the company was equal to the emergency, and in the summer of 1916 designed and constructed, and before the end of the year, put into operation an acetylene generating plant capable of delivering 600,000 cubic feet of gas per day. This capacity has since been doubled. Each of the generators takes half a ton at a single charge, and, when the occasion requires, may be charged every hour.

The Canada Carbide Company, Limited, of Montreal, operating plants at Shawinigan Falls, Que., and Merritton, Ont., is one of the largest manufacturers of calcium carbide in the world, having a capacity of two hundred tons per day. Carbide has been manufactured in some of its plants continuously for the past twenty-three years. During this time the enormous advance in consumption of carbide has made necessary repeated improvements and additions to the capacity of the company's plants. For several years, however, the company has made, and for the future will make, adequate provision to meet the steadily increasing demands, both domestic and foreign.

The history of the growth of the carbide furnaces and processes from the single-phase, single-electrode ingot type, built by Thos. L. Wilson; to the great three-phase, three-electrode tapping furnace of today, as operated by the Canada Carbide Company reads like a tale of the alchemists. The carbide industry is now a highly scientific business, conducted on broad and sound principles.

Cyanamid. It was stated earlier in this article that the air is four-fifths nitrogen which is very inert, that is, does not readily enter into chemical combinations. It has been found that calcium carbide at the high temperatures of the electric arc has the property of combining with nitrogen forming a compound known as calcium cyanamide commercially abbreviated to cyanamid. The only plant now producing this compound in North America is located in Niagara Falls, Ontario. This plant commenced to produce in 1909 with a capacity of 12,000 tons per annum. In 1913-14 additions brought the capacity up to 64,000 tons.

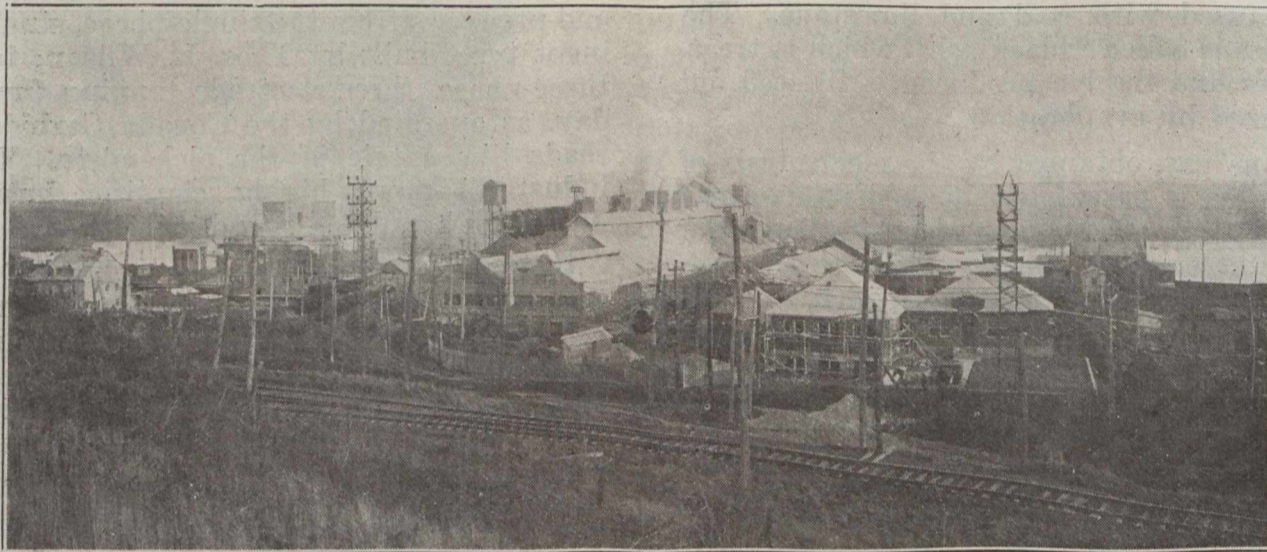
*"Besides its use in the manufacture of mixed or commercial fertilizers, cyanamid is being used as a source of nitrogen for making the following products: sulphate of ammonia, ammo-phos, aqua ammonia, anhydrous ammonia, nitrate of ammonia, nitric acid, urea, dicyandiamid, cyanides and case-hardening compounds. Its use as an ingredient in mixed fertilizers has hitherto taken the bulk of the production. Lately the strong demand for the secondary products mentioned has diverted considerable cyanamid to the manufacture of these products. For the maintenance of the supply of cyanamid for use in fertilizer mixtures, additional quantities will need to be manufactured.

"Very little cyanamid, perhaps less than 1 per cent, has been applied in this country directly to the soil without previously being mixed with other fertilizer materials. In Europe practically all the cyanamid, like other fertilizers, is applied sep-

* From pamphlet "Cyanamid," American Cyanamid Company.

“arately, but in America the higher cost of farm labor, and general convenience, favors the use of ready-mixed fertilizers. Cyanamid-mixtures, as made by fertilizer manufacturers, contain no cyanamid in its original form. The acid phosphate in the mixture changes the cyanamid principally to the neutral and highly available organic compound, urea, and to a slight extent the ammonium compounds. Cyanamid-mixtures as ordinarily made by fertilizer manufacturers are used like any other fertilizer mixture.”

In other methods for the utilization of atmospheric nitrogen the nitrogen is converted directly into nitric oxide by the electric discharge and nitric acid is made from this. Prior to 1914 the countries of the world depended chiefly on the Chilian deposits for nitrates as a source of nitric acid so essential in explosives manufacture, but the possible cutting off of this supply by enemy navies was once evidenced in the action of the German Pacific squadron. Practically all countries are now interested in the development of nitrogen compounds from the atmosphere. Canada's water powers give her great advantage in this respect over many other countries.



View of the First Plant Erected at Shawinigan Falls in 1916 to Manufacture Acetic Acid. This plant has been increased to twice the size shown.

Canadian chemists did not shrink from the field of organic chemistry so long and erroneously considered the exclusive field of German chemists.

Since the spring of 1916, we have been making acetyl salicylic acid, familiar to headache sufferers under the name as aspirin. By an oversight or excessive conscientiousness, this registered trade name remained the property of the enemy while the Canadian article has been used the British, French and Russian Governments, and the retail drug trade of Canada in large quantities.

Phenacetin is another German controlled product which is now made in quantity in Canada, and has been put successfully on the foreign market. Other compounds will shortly be produced which have passed the laboratory stage. One of the greatest difficulties in the manufacture of some of these goods is the presence of cunning “jokers” in the German patents, scientific herrings drawn across the trail.

During the summer of 1915 the demand for acetone for the manufacture of cordite, the propulsive

charge used in shells for the British Army, became so insistent that the possibilities in every source of acetone were investigated to the last detail. The producers of acetone at that time, practically all operating by means of the calcium acetate process, and working to capacity, were quite unable to even approximate the demand. It was one of the big problems the Munitions Boards had to solve and solve quickly. Many expedients were resorted to. A huge plant for producing acetic acid by making vinegar out of molasses was put up in the United States. In California the kelp industry sprang into sudden active life, and another large plant was built out there to produce acetone, among other things, from kelp. The British Acetones, Ltd., making use of an idle brewery in Toronto, began to produce acetone from corn syrup by a fermentation process using the bacillus macerens.

In the fall of 1915, among the first, the Shawinigan Water and Power Company went into the game. They decided to try out the synthetic process for making acetic acid and acetone, from acetylene gas—or to go back the remaining two steps from calcium carbide—from limestone and coke.

Such a process could only be operated in the vicinity of a carbide plant, and the company already had a large plant—the Canada Carbide Company, in Shawinigan Falls—where large carbide furnaces had been in operation for a number of years.

The services of Mr. H. W. Matheson, a Canadian and a graduate of one of our Canadian universities, at that time with Du Pont Powder Co., were obtained, and in December, 1915 experimental work on a commercial scale was started in a small building under the grim, dusty walls of the Canada Carbide Co.'s plant at Shawinigan. The difficulties of designing and obtaining the special equipment suitable to the work, took time. By the end of May, 1916, there were five Canadian chemists at work there. All five had obtained their training in and were graduates of Canadian universities.

The process finally evolved divides itself into three sections. First, the conversion of acetylene gas into acetaldehyde. Second, the oxidation of acetaldehyde to acetic acid. Thirdly, the conversion of acetic acid directly into acetone. These were

known as processes one, two, three, respectively. There was a fourth process, which was the preparation of the catalyst used in large quantities in process one.

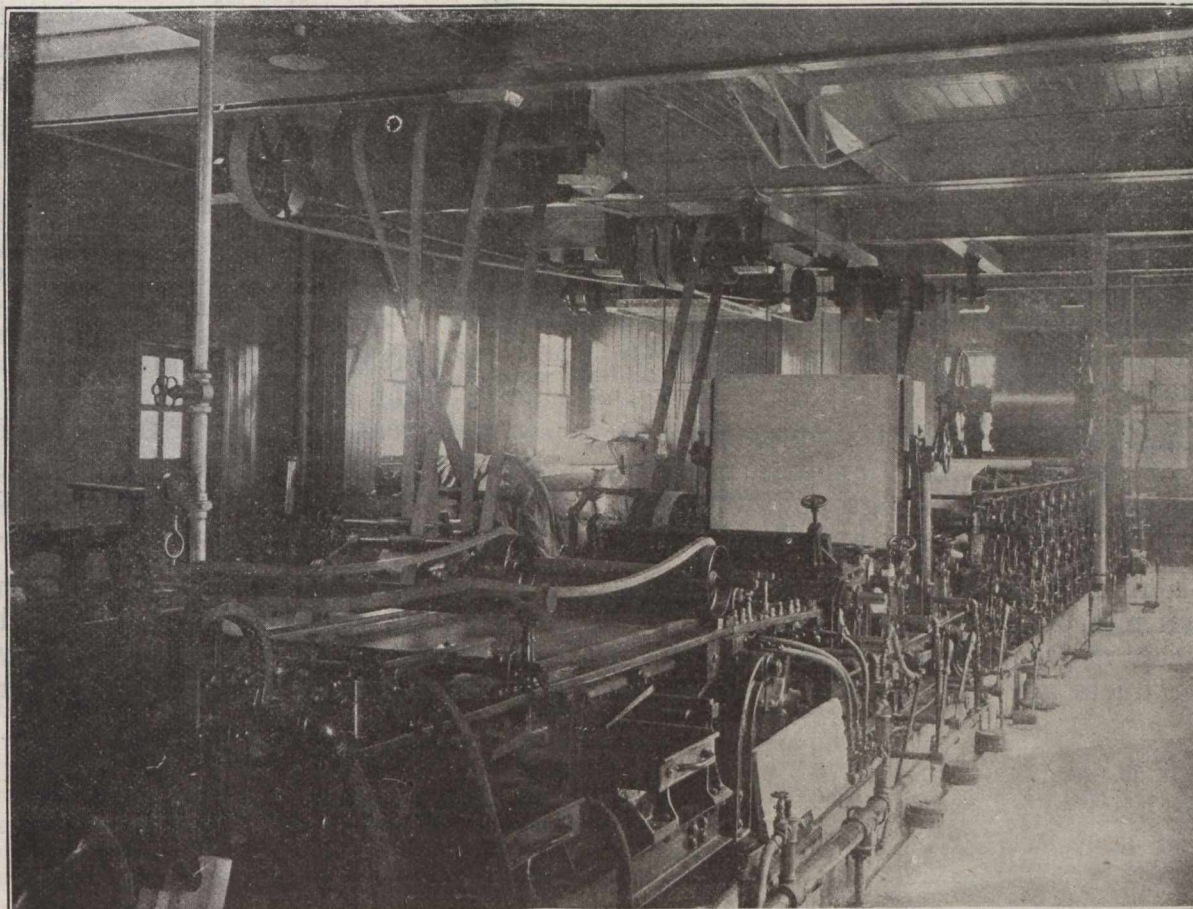
On the first of October process four was operating on a large scale and before the end of the month process one was under way. On November 20, 1916 the first batch of five tons of acetic acid was produced. In January 1917 the first carload of 17 tons of British War Office Specifications C. P. Triple X acetone was shipped.

There were turned out at this plant and shipped overseas two hundred long tons of acetone monthly. In the fall of 1917, the demand for acetic acid for use in the production of cellulose acetate for coating aeroplane wings, became very great, due to

need mordants, and are known as adjective dyes. Acetic acid is also used largely in the making of white lead.

Acetone is indispensable in the making of cordite. It dissolves the nitrocellulose, and thus makes possible an intimate mixture of the nitrocellulose, nitroglycerine, and petroleum jelly which go to make up cordite.

In another line, two of our large steel plants have produced as by-products from the coal they use for smelting, the two important coal-tar products, benzene and toluene. These were absorbed during the war entirely by the explosives' industry, but both of them have large peace uses in the field of synthetic chemistry. Crude benzene makes a good substitute for spirits of turpentine in paint. It has also



The manufacture of paper and pulp is really Canada's most important chemical industry. The Forest Products Laboratories at Montreal include facilities for the study and investigation of processes and materials used. The picture shows the experimental paper machine, which makes it possible to test the actual product in the form of paper.

the tremendous aerial developments at this time. The plant was, therefore, used to produce acetic acid only, and until the time of the signing of the armistice, had produced and shipped in the neighborhood of 10,000 long tons of this material. This in a period of less than a year.

This plant is now operating on a commercial basis and producing on almost the same scale as during the war. Shipments are being made to practically every part of the world.

Acetic acid is used in many industries, among others in the dyeing of textiles where acetates or iron and aluminum are used in conjunction with dyes. They act as mordants. A mordant is an agent that helps fix the dyes on the fibre. Some dyes do not

been used with some success as a motor fuel. This use will no doubt increase.

The future of Canada's chemical industry is indicated in her great natural sources of wealth: field, forest, mine and water power. Her agricultural work will call for the following:

Substance: Nitrate. Source: Air. Process: Electric.

Substance: Potash. Source: Feldspar. Process: Special process.

Substance: Superphosphate. Source: patite. (phosphate of lime). Process: Sulphuric Acid.

Substance: Sulphuric Acid. Source: Pyrites. Process: Oxidation.

Her animal industry will be an increasing support to her chemical industry. The packing houses produce hides, and the hides require chrome compounds to be obtained from our deposits of chromite, and tanning extracts derived from our oak and hemlock.

In the medical world to-day, much importance is given to the physiological effects of extracts and dried portions of certain glands from the carcasses of freshly killed animals, especially the hog. Among these are adrenalin, pancreatine, pepsin and the dried thyroid gland. These substances and others from the same sources, have great value in digestive and nervous diseases, and, as soon as the number of animals slaughtered in any one place becomes high enough these valuable and high priced medical products will be recovered and prepared in Canada. Many pharmaceutical products are made by extracting active principles and alkaloids from the roots, stems, bark and leaves of plants. These plant substances have been largely derived from the Central European nations. Quite a fair number of the same plants, shrubs and trees are indigenous to Canada. Some have been gathered here, but are of poor quality, due in great measure to lack of experience on the part of collectors. Valuable gums, resins and balsams are obtained from Canadian trees. More than thirty different commercial products can be obtained from wood by destructive distillation. Eleven plants are engaged in this business in Ontario and Quebec.

When we engage the possibilities which lie in the development of chemicals from Canadian minerals, we are in a very Tom Tiddler's ground. We have mentioned pyrites, feldspar, salt and limestone.

Chromite, a mineral containing oxide of chromium, has been mined and sold, but not worked up in Canada except as ferro chromium in blast furnace work. Its products are valuable as dyes and pig-

ments. Bright yellows and greens in various shades are obtained by chemical reactions with chromium compounds. Lead, iron and zinc, in addition to being of great metallurgical importance are the bases of numerous pigments. Canada, with her own supplies of linseed oil, should be a great paint-making country. Paint beautifies, protects and educates. The unpainted community is ugly, temporary and mentally defective. The products of our mines figure not only as sources for industrial chemicals, but as means for their manufacture. Lead resists the action of acids, but is very soft. Antimony added in small quantities to lead has the effect of making it hard enough to use for piping and containers in the handling of acid liquids. Our tile industries produce earthenware pipes and tiles for the same industries.

War conditions have contributed tremendously to the recovery of by-products from our coals; these will never be allowed to revert to the neglect they suffered before the war. Our cities and towns are now large enough to reclaim these by-products, and send them for refining to some central point.

The spring of 1917 welcomed "The Canadian Chemical Journal," a well edited monthly review of markets conditions and current topics. Its immediate absorption has been indicative of the present interest in chemical industries.

Two-fifths of the world's water power, producing heat, light and electricity; wide belts of fertile lands; great stretches of forests; mountains of minerals; these are Canadian truisms so often spoken that we scarce realize that in them destiny spells our greatness to be.

The stimulus given and the constructive effort compelled by the war must not and will not be lost to Canada. They have found a natural equipment for even greater things than the present.



Banks, Banking and Bankers

Mark Holders Buy German Land

Expectations Based on German Stability of Character—Very Heavy Inflation of German Currency—Foreign Holders of Marks Recoup Losses by Buying Land

People advance the stability of the German character and their industriousness as reasons for believing that the heavy war burden will be speedily lightened. Then again the speculation in marks as compared with francs is helped by the argument that German soil was not ravaged by the invader as the great industrial North of France was. In all the foreign holdings of German marks are computed to be about 13 billion.

The value of the marks has lately suffered a severe blow by the announcement in connection with the Reichsbank reports that Germany is entering upon a new period of currency inflation which will seriously aggravate the republic's other financial difficulties.

The official explanation of the denuded inflation is that stocks are being realized on a large scale and the receipts hoarded. Under recent legislation against taxation evasion, and since the abandonment of Herr Erzberger's plan to stamp bank notes, hoarding of currency is the safest means of evasion. The Reichsbank report for the third week in November showed an increased paper (bank notes and Darlehnskassenscheine) circulation of 386,300,000 marks. The last bank report, for the fourth week of November shows an increase under these headings of 1,450,000,000 marks, a figure much exceeding even the 820,500,000 marks of the corresponding week of 1918, which was an avowed inflation period. This increase of paper circulation has taken place in spite of the fact that the Government has not yet realized the large credits which it has again been obliged to take up with the bank. The week's report is unfavorably commented on in the financial press as a presage of continuing inflation.

So many marks are held abroad that there are signs of a foreign buying interest in German values as the holders wish to protect themselves against a further possible fall in mark exchange. This protection can only be obtained by acquiring real German assets. The average price paid for the large number of marks held outside Germany is very much higher than the present rate but the mark's buying value in Germany is still above the average rate at which they were bought, so that losses can be recouped only by buying German land, securities and export goods; and formal steps have been taken towards this by the

organization of a buying corporation in Switzerland. Another syndicate for the same purpose has been formed in Holland.

It is declared that even if the demand for export goods from Germany does not immediately justify buying, it will pay the mark holders to keep the goods for a couple of years. The president of the Darmstaadter Banks, Dr. Calmon, who puts the foreign holdings at 20-25 milliards argues that Germany must take measures to get back the marks held abroad. This, he holds can be done by treaty and with the aid of the interested Entente.

In Montreal there has been considerable speculation in German marks. The other day a stenographer employed in the office of a fairly prominent business man displayed her holdings of German marks. There is little doubt that she was inspired to invest her savings in this way by transactions she saw in the office where she worked. A prominent banker of Montreal is also credited with a personal holding of German marks running above the hundred thousand. He does not believe however that any realization will be made on these for about twenty years.

The Double Track to Toronto.

The direct line of the Grand Trunk Railway System offers to travellers the ideal route between Montreal and Toronto. It is double tracked all the way and the splendid train equipment in use makes the journey a pleasure. The "International Limited" which leaves Bonaventure Station daily at 10.00 a.m. is composed of parlor cars, pullman drawing room sleeping cars, dining car and modern coaches, and reaches Toronto at 5.40 p.m. Another morning train leaves Montreal at 9.00 a.m. daily for Toronto, and intermediate stations, reaching Toronto at 9.00 p.m. The Grand Trunk also operates two excellent night trains, one departing at 7.30 and the other at 11.00 arriving Toronto at 6.00 a.m. and 7.30 a.m. respectively. On the 11.00 o'clock train are Pullman Drawing room sleeping cars, including club compartment drawing room sleeping car and latest type of coaches, and there are drawing room sleeping cars (which may be occupied until 7.30 a.m. at Toronto) and latest type of coaches on the 7.30 p.m. train.

ESTABLISHED 1872

Bank of Hamilton

Head Office: HAMILTON

Capital Authorized... .. \$5,000,000
 Capital Paid Up (July 31st, 1919). \$3,946,220
 Reserve and Undivided Profits
 (July 31st, 1919) \$4,058,224

EXCHANGE AND LETTERS OF CREDIT

This Bank offers peculiar advantages in handling Foreign Exchange and issuing Letters of Credit. With Branches in every part of Canada, as well as in several important cities elsewhere, and with correspondents of high standing in all parts of the world, it is able to place many advantages at your disposal.

THE CANADIAN BANK OF COMMERCE

OVER 500 BRANCHES.

PAID-UP CAPITAL \$15,000,000
 RESERVE FUND \$15,000,000

The Royal Bank of Canada

Incorporated 1869.

Capital paid up.....\$ 17,000,000
 Reserve Funds.....3 18,000,000
 Total Assets.....\$533,000,000

HEAD OFFICE: MONTREAL.
 SIR HERBERT S. HOLT, President.
 E. L. PEASE, Vice-President and Man-
 Director.

C. E. NEILL, General Manager.
 631 Branches in CANADA, NEWFOUND-
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 BRITISH WEST INDIES, ARGENTINE,
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SPAIN, Barcelona—Plaza de Cataluna, 6
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 SAVINGS DEPARTMENT at all
 Branches

LLOYDS BANK LIMITED.

HEAD OFFICE: 71, LOMBARD ST., LONDON, E.C. 3.



CAPITAL SUBSCRIBED . . . £56,150,350
 CAPITAL PAID UP 8,984,056
 RESERVE FUND 9,071,250
 DEPOSITS, &c. 309,328,800
 ADVANCES, &c. 92,784,877

THIS BANK HAS OVER 1,400 OFFICES IN ENGLAND AND WALES.
 Colonial and Foreign Department: 17, CORNHILL, LONDON, E.C. 3. London Agency of the IMPERIAL BANK OF CANADA.
 The Agency of Foreign and Colonial Banks is undertaken.

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 Auxiliary:
 LLOYDS AND NATIONAL PROVINCIAL FOREIGN BANK LIMITED.

Business Founded 1795

American Bank Note Company

Incorporated by Act of the Parliament of Canada

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 BANK NOTES AND CHEQUES
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 STOCK CERTIFICATES
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Branches:—
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 TORONTO, 9 Melinda Street.
 WINNIPEG, Union Bank Building.

Banks, Bankers and Banking

Bank of Nova Scotia Had a Fine Year

Comparison of the Bank of Nova Scotia statement for 1919 printed elsewhere in this issue is somewhat difficult because of the amalgamation with the Bank of Ottawa. Some adjustment of the capital account was necessary in making that amalgamation. The combined capital and rest after amalgamation was set at \$27,500,000, which was \$250,000 over the capital-and-rest of the two banks and which was not wholly accounted for by absorbing the Ottawa's profit and loss surplus of just under \$200,000. This doubtless accounts for the fact that profits in 1919 were slightly lower than those of the two banks in 1918, especially as it would take some months to get the combination working to its full economic saving. It should be added that the capital-and-rest has now been increased by putting to Rest Account \$200,000 from the 1919 profits; Rest Account is now \$18,000,000, and capital \$9,700,000.

The 1919 profits were \$1,925,478, compared with \$1,411,925 for Nova Scotia, and \$645,437 for Ottawa the previous year, or a total of \$2,057,362. Assets of the Nova Scotia have now reached a total of \$238,278,722, as compared with \$234,023,908 for the two banks added together in 1918.

Deposits for the Nova Scotia have now reached the sum of \$180,292,607 as compared with \$178,338,107, thus showing a slight increase over the deposits of the two banks added together before amalgamation. Commercial loans were \$77,868,030, as compared with \$75,977,605 for the two institutions a year ago.

Leaving the comparison with the two former banks aside, the Nova Scotia reflected its strong position last year by increasing its dividend from 14 to 16 per cent. The sum of \$200,000 was written off bank premises account, as compared with \$150,000 for the Scotia alone the previous year and \$100,000 was contributed to officers' pension fund, or double the amount of 1918. The balance carried forward is \$704,172, as compared with 749,694 for Scotia alone a year ago.

Some of the more important items, with comparisons, the figures for 1918 including the Nova Scotia and Ottawa added together, are as follows:

	1919.	1918.
Net profits	\$ 1,925,478	\$ 2,057,362
Total deposits	180,292,607	178,338,107
Total assets	238,278,722	234,023,908
Commercial loans	77,868,030	75,977,605

THE MOLSONS BANK

Incorporated 1855.
Capital and Reserve \$9,000,000.00
Over 120 Branches.

The tremendous credit business which is done these days could not be accomplished without the assistance of the banks. If you require a line of credit and have good grounds to base it on, The Molsons Bank will be glad to advise and assist you as far as it can. Have a talk with the Manager.

Head Office Montreal.
EDWARD C. PRATT,
General Manager.

Bradstreet's Montreal Trade Report

Bradstreet's report for the last week is as follows:—"The situation in wholesale trade circles shows considerable activity. In the retail trade, however, business has been on the quiet side; this is due to the extreme cold weather we have experienced during the past week, the thermometer being quite a few degrees below zero point has kept retail buyers from venturing out of doors, unless it was for something special.

"In the wholesale grocery there is considerable movement, with prices holding firm. The regulations regarding the official prices of refined sugars are finding bitter complaints amongst the retail grocers, who claim that the high prices now prevailing mean considerable financial outlay, and they are only allowed 1½c. per pound profit, which has to cover all their expenses, such as wrapping and delivery, and loss in weight in weighing small parcels.

"Confectionery of all kinds has gone up price, due to the advance in sugar prices. We are still exporting large quantities of confectionery to Great Britain, where these Canadian products are meeting with much favor.

"Molasses and syrups show further advance in prices. Teas are firm, with the trade looking for higher prices in Ceylons. Soaps are higher. Large orders have been received from the United States for Canadian flour.

"The potato market is advancing rapidly in price. Live and dressed hogs are commanding higher prices. American egg houses are commencing to offer new laid eggs in this market. The butter market is easier.

"Owing to heavy storms at sea, the shipping trade has been more or less upset, very few vessels sailing from the winter ports during the past week"

THE MERCHANTS BANK

Head Office: Montreal. **OF CANADA** Established 1864.
Paid-up Capital .. \$7,000,000 Total deposits Oct. 31, 1919 \$165,000,000
Reserve Funds .. \$7,574,043 Total Assets Oct. 31, 1919 \$198,000,000

President: Sir H. Montagu Allan, C.V.O.
Vice-President: K. W. Blackwell.
General Manager: D. C. Macarow.
Supt. of Branches and Chief Inspector: T. E. Merrett.



Draw on Your Customers

through the Merchants Bank. With Branches in all parts of Canada and correspondents abroad, this Bank is in a position to present Drafts promptly, have them accepted, and collect payment, with the least possible trouble and cost to you.

365 BRANCHES IN CANADA EXTENDING FROM THE ATLANTIC TO THE PACIFIC.

ESTABLISHED 1832

Paid-Up Capital
\$9,700,000



Reserve Fund
and Undivided Profits over
\$18,000,000

TOTAL ASSETS OVER \$220,000,000

The strong position of the Bank of Nova Scotia not only assures the safety of funds left on deposit with the Bank but also places it in a position where it can readily care for any legitimate business needs of its customers. We invite business of every description.

THE BANK OF NOVA SCOTIA

THE STANDARD BANK OF CANADA

QUARTERLY DIVIDEND NOTICE NO. 117

A Dividend at the rate of three and One Quarter per cent (3¼) for the three months ending 31st January 1920, has been declared payable on the 1st of February, 1920, to shareholders of record as at the 17th January, 1920.

The Annual General Meeting of the shareholders will be held at the Head Office of the Bank in Toronto, on Wednesday the 25th day of February next, at 12 o'clock noon.

By order of the Board.
C. H. EASSON,
General Manager
Toronto, December 26th, 1919.

Dominion Bank Had Good Year

The Dominion Bank in the year ended December 31, 1919, enjoyed a most prosperous period in its business as a result, was enabled to put out the strongest statement issued since its formation.

The net profits were \$1,169,703.83, an increase of \$83,205.45 over the 1918 profits or 9 per cent of the bank's capital and reserve, as compared with 8.35 per cent, in the previous year.

Notwithstanding the fact that the distribution to shareholders during the year was increased by \$60,000 in the shape of a bonus off the bank premises amount—\$300,000 as against \$250,000 in 1918—the balance carried forward in profit and

loss account was \$495,700, approximately \$50,000 greater than the amount carried forward the previous year.

The bank paid its usual dividends at the rate of 22 per cent, per annum, and a bonus of 1 per cent, making a total distribution to shareholders of \$780,000, or 13 per cent for the year. The amount written off bank premises account, \$300,000, was the largest deduction yet made for this purpose, and compares with \$250,000 in 1918 and \$200,000 in 1917.

The annual general meeting of the shareholders of the Dominion Bank will be held at the head office in Toronto, at noon on January 28.

New Trade Report Covers Whole War

The Annual Report on the Trade of Canada, just issued by the Dominion Bureau of Statistics, is the first detailed statement of trade covering the whole period of the war. It is a book of a thousand pages and its contents were prepared by the External Trade Division of the Bureau from returns of the Department of Customs. Every detail of Canadian trade for the fiscal years 1915 to 1919, inclusive, is shown. As the Canadian fiscal year ends on March 31 the commencement of the war occurred in the fiscal year ending on that date in 1915, and the conclusion of hostilities was in the fiscal year ending March 31, 1919.

The main tables of this report give details of the trade under every item of the Import and Export classifications for the five years, every coun-

try of origin or destination of goods being shown. The items are grouped according to the classification in use by the Bureau of Statistics up to the fiscal year 1919, so that this Annual Report corresponds in arrangement with the Monthly Reports issued during the period covered.

Other tables give the gross trade with every country of the world under various handy arrangements of Imports and Exports, also historical reviews of trade from Confederation to date. There is a comparative table showing both Imports and Exports by separate articles as well as tables retailing the trade under the British Preferential and French Treaty tariffs, illustrating the effect of those measures. The volume is fully indexed.

Review of the Newest Books

By H. S. ROSS.

Conservative Democracy—Principles and Practice of American Democracy, By Paul Kester Author of His Own Country; Publishers The Bobbs—Merrill Company Indianapolis.

The author says "Democracy is no new thing. It is as old as the hills. Indeed, it is much older. Its fundamentals belong to the eternal verities, and are as inevitable as logic, religion, evolution or the law of gravity. The mind can follow its evolution into infinity, while the humblest task which is done in its name will have beauty and dignity.

"Democracy, like Christianity, of which it is only another form of expression, is a perfect and complete philosophy of life, even more than it is a theory of government; a true and beautiful thing, which requires not only appreciation but conformity to enable to complete its service to mankind.

Mr. Kester is strongly opposed to Socialism. He says: "Paternalism is based upon a benevolent compulsion. But compulsion is never long benevolent. Socialism, which is the policy of the consciously weak, appears to advocate an autocratic form of paternalism, which is the faith of the consciously strong, rejects it absolutely.

Democracy can not be practiced by a people requiring guardianship.

This little book of eighty two pages is filled with wise suggestions. The author says in closing:

"We must resolutely put aside the blandishments of imperialism and autocracy and all the plausible sophistries of socialism and cleave unswervingly to true temperate and simple democracy, for therein abides the hope of the world."

The Lover's Rosary by Brookes More is published by The Cornhill Company of Boston.

There is pleasure in reading that which expresses beautiful thoughts in plain and unadorned language and there is pleasure in that which is lovely but expressed in symbols—although the shadowed meanings may at first baffle one.

Of the fifty-nine beautiful sonnets the author says: "A chain of beads used for counting prayers, may be called a "Rosary", but such a string, or chain, is more correctly named a "Chap'et". A Chaplet is composed of fifty-nine beads and when the devotee has told the fifty-nine beads three times, he has thereby completed a "Rosary." My dear reader, when you have the third time read this chain of sonnets, you will have completed "The Lovers Rosary". And as the beads are often made of precious jewels, let us hope some pearls may be found: alas, I fear many are fashioned of ashes."

Bonus for Bank of Hamilton Employees.

The Bank of Hamilton directors have approved of a bonus of 20 per cent. to those who are single and 25 per cent. to those of the staff who are married. This will be paid monthly on their salaries and allowances throughout the year 1920. This is in addition to a general increase in salaries which have this year been revised two months earlier than usual.

Recognizing the difficulties faced by those with small incomes, the bank will also supplement the pensions by paying a bonus of 10 per cent. during the year to its pensioners.

An Actual Accident With a Moral.

A short time ago a farmer asked a buggy manufacturer for a price on a certain type of vehicle.

Upon receipt of the quotation the farmer wrote the manufacturer accusing him of "profiteering," and similar high commercial crimes and misdemeanours. In justification of his charges he reminded the manufacturer that he (the farmer) had once bought a very similar buggy from the same factory at a price far and away below the price now quoted.

This particular manufacturer operates one of the systematic business concerns that maintains a record of all its transactions.

Upon receipt of the farmer's letter of complaint the manufacturer looked up the previous sale to which the farmer referred.

He found that such a sale had been made, as the farmer stated, and that the farmer had paid for that buggy not in money but with a shipment of wheat.

The manufacturer thereupon replied to the farmer, giving the complete record of the transaction, and said: "If you will ship to me for your new buggy the same amount of wheat you shipped for your old one I will gladly ship the buggy and, in addition, will ship you a piece of household furniture and a good kitchen stove."

Fortune is Built On Saving

If you have to work hard for your money make your money work hard for you.

Our Savings Department pays 3% per annum and this interest is added to your principal twice a year.

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Canada's Mining Industry

Canada's Underpaid Experts

Government Issues a Statement Replying to Criticism—The Geological Survey Has Lost One-third of its Staff in Three Months—Salaries Not Equal to Those Offered By Corporations

By F. W. Gray, Editor of Canadian Mining Journal.

Further bearing on the opinions expressed under the above caption in the last "Journal" we reproduce a Canadian Press dispatch which has appeared in the newspapers, making excerpts from a Statement by the Civil Service Commission which takes exception to the widespread condemnation by Canadian newspapers and the technical press of the circumstances which have compelled a number of the members of the Geological Survey to resign their positions in order to take up more remunerative employment offered to them by wealthy oil corporations. We do not believe that the explanation of the commission requires much comment. It is self-revealing enough. The crux of the statement is in the following sentence, which we excerpt:

"This powerful and tremendously wealthy corporation (The British Petroleum Company) approaches an officer of the staff of the Geological Survey who has been receiving \$2,600, but who under the classification will at once increase to \$3,300, and offers him \$6,200 to start with. The Government cannot compete with such an offer, and the country would not sanction it."

What justification was there at any time, let alone the unusual times through which we are passing, for paying a competent geologist \$2,600 a year. What ground is there for considering \$3,300 to be an adequate annual salary for a competent professional man to-day.

The Commission ask that equally wide publicity should be given to the actual conditions under which the defections from the Geological Survey are taking place as has been given to the de-

fections and their necessary consequences. It may be surmised that the daily and technical press will gladly give the requested publicity, for the facts disclosed by the Commission's statement of explanation and defence emphasize the point we have previously endeavoured to make clear, namely, that there is a fundamental and absolute misconception in the official mind, and in the mind of our provincial and federal legislatures, of the status of the scientific man, and the remuneration that he should receive.

The Commission states that two of the members of the Survey who are going away admit that the revised scale of salaries "is as liberal as the Government is justified in offering." Judging by the salaries for which Government geologists have worked in the past, we hardly think they can be admitted as competent judges of what is the extent of the remuneration the Government is justified in offering. The Ottawa Journal more-accurately sums up the relative issues at stake when it remarks:

"The loss within a few weeks of one-third of its staff is the worst blow ever received by the Geological Survey—the most powerful single instrument in the past development of the natural resources of Canada. Coming at the present crisis in the progress of that nation this is nothing short of a calamity."

It is assumed—and it is nothing but an assumption—that the people of Canada will not sanction adequate remuneration of the Geological Survey and other departments of the Civil Service detailed to deal with scientific matters, but why should the people of Canada play second fiddle to a private corporation?

German Marine Insurance Schemes.

The new German government, following the example of its predecessor, has been discussing the question of creating a state monopoly of insurance. This has drawn from Herr Wilhelm Kisskalt, manager of the Munich Retrocession Company, the leading German institution of this kind, a statement to the effect that the creation of a state monopoly of insurance would strike a death blow at retrocessions, for the reason that retrocession is not, properly speaking, a branch of insurance, but a spread of direct insurance. Direct insurers need retrocession facilities, because they are unable to retain the full lines written, after a certain maximum has been reached. But when the state itself is the insurer, retrocession becomes superfluous on account of the unlimited resources of the state. Herr Kisskalt fears that the death of retrocession would bring about the death of the German reinsurance monopoly, for the reason that reinsurance is a natural international corollary of retrocession and it is the lead taken by the German retrocession companies which brought in its train supremacy in the field of international reinsurance. A summary of results from retrocessions obtained by Germany from

foreign countries is not available, but the insurance text-books show that in the ten years preceding 1914, premiums retroceded to German companies increased by 100 per cent, reaching a value of about £28,000,000 in 1913, of which about £25,000,000 was obtained by pure retrocession companies.

PROFESSIONAL

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Canada's Mining Industry

Air Service for Mining Camps

Project to Use Airplanes to Serve Isolated Mining and Lumbering Camps—Court of Appeal Decides Case of Bailey Cobalt Mines—Discovery at Temiskaming Mine

Toronto, Jan. 23—Air lines in the north country are a possibility and a move has already been made in that direction. The noted Canadian air-men Messrs. Bishop and Barker, through Captain Salter, have asked the Temiskaming Board of Trade of New Liskeard to use its influence for the establishment of an airplane service to serve the mining and lumbering industries in that district and the board's annual meeting endorsed the project. It is recognized that an airplane service designed to serve the points off the railroads would be a great boom to miners and lumbermen and it is likely that before long the proposition will take concrete form. The necessity for Hydro power and a trunk line together with the extension of the Nipissing Central Railway were placed before the meeting as requisites in the district.

A new discovery of silver is reported to have been made in Concession 1, lot 4, in the township of Cane, in the Elk Lake district. It is stated that the vein is about two feet in width and contains considerable cobalt and fair silver values. The rock formation is diabase and the claim is owned by Elk Lake prospectors.

By the end of the present month it is expected that a shaft on the Miller Independence, which has reached a depth of 452 feet, will be completed and timbered to the 500-foot level. It is planned to cut a large working station at the 5th level, preparatory to carrying out the proposed lateral operations. The shaft is located some little distance south from the main ore body, the latter of which is dipping south the shaft being located in what is considered a central point. In the meantime, now that the electric power plant is soon to be brought into commission, preparations will be made to resume development in the so-called "D" shaft, in which rich tellurides were found last year. February 5th is set for the annual meeting of the company in Dayton.

The Kennedy-Boston property is continuing its development work with good results. At a depth of 70 feet the vein is stated to have widened out considerably, the vein and the altered rock accompanying it having increased to close to four feet in width. Samples recently taken out are said to be excellent, containing considerable coarse gold. The shaft is being continued to the 100-foot level where lateral work will be undertaken.

The Court of Appeal in Toronto has decided that the offer made by A. J. Young to the liquidators of Bailey Cobalt Mines, Limited, wherein he agreed to purchase the Bailey Mine and all its assets and to form a new company to be known as the Bailey Silver Mines, Limited, with a capital stock of \$1,250,000 shall be accepted. As a consequence of the decision of the court the new company will take over the Bailey mine and its assets, together with the Northern Customs concentrator Mill at Cobalt and start operations with \$50,000 cash in the treasury. A. J. Young, President of the Northern Customs Concentrators Company will manage the new concern. The Northern Customs Mill, which will be purchased and owned by the new company, is working to capacity

at the present time, it is said, and has an earning capacity of \$90,000 a year. It is understood that the Bailey Mine has a considerable amount of ore available for shipment and a report made for the Bailey committee during the delivered by Mr. Justice Middleton concerning litigation, estimated the silver available at some 400,000 ounces. It is expected that the Bailey mine will be opened and under operation within the next thirty days. The opinion of the court the offer made by A. J. Young, says, among other things:

"In substance it (the Young offer) provides for the turning over of all the assets to the new company; this company will pay the creditors in full the largest creditor limiting his claim to a fixed amount; shares of the new company will then be given to the shareholders of this company (the Bailey company). The creditors welcome the offer as it procures for them payment in full when they expected a loss; the shareholders—save a few represented by Mr. Laidlaw—are anxious to accept, for in this they see their only chance to obtain anything."

Discoveries of importance were made at depth during the past two months in the Temiskaming mine and an examination by an engineer is said to show a much larger tonnage of good grade ore in sight than at any time during the past two years. Development work on the 500-foot level and below has met with success as a result of which a very rich car of ore is being assembled and is about to be despatched.

An interesting development in connection with the work at the Boston-McCrea mine in the recent discovery of a new vein some 30 feet north from and paralleling the vein on which the shaft was sunk. This new vein, where opened out on surface, is stated to be upwards of ten feet in width and carries gold values of \$8 to the ton. It is planned to open up the vein as quickly as possible. The Boston-McCrea has also purchased a claim in the Kirkland Lake district, situated at the end of Gull Lake and known as No. 6940 development work upon which is now in progress.

A record shipment from the Cobalt camp was made a week ago when the Mining Corporation of Canada sent out 221 bars of silver valued at over \$300,000 at the present rate for silver. The consignment contained 221,573.01 fine ounces.

It is stated that the Argonaut Gold, Limited, a Montreal company, which was formed a few months ago to take over and develop the old Huronia mine at Beaverhouse Lake, in the Larder Lake district, is considering extensive plans in connection with the treatment of its ore. At the time the property was taken over, the mine was equipped with a small mill, consisting of 15 stamps. The plant has now been in operation for a time in an experimental way and a small amount of gold has been produced. The Argonaut owns upwards of 400 acres. J. W. Morrison is mine superintendent with E. W. Asselstine as mine captain and John E. Hardman as consulting engineer.

MAPS OF PORCUPINE and COBALT

The most accurate and up-to-date maps of these camps, which I have compiled without regard to cost, are now ready for distribution. Every investor should have these maps.

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The income yield in 6½%. The issue is not large—but it is a thoroughly sound investment for those who favour the sterling security behind good Real Estate First Mortgage Bonds.

The Denominations are \$500 and \$1000 each. We advise early application for a prospectus.

33

**Royal Securities
CORPORATION
LIMITED**
MONTREAL

Toronto St. John
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The Pulp and Paper Industry

Canadian Paper Trade Conditions



The Pulp and Paper Magazine of Canada prints the following review of conditions for the week in paper trade:

"The average sales manager for the big paper dealers in Canada these days opens his morning mail in fear and trembling lest some of it will contain orders for paper to add to his existing troubles in catching up with orders already a month or two behind. The paper firms are not looking for orders—what they want is paper—and paper is about the scarcest commodity there is in Canada to-day. Not that the mills are not making it. They are turning it as fast as their machines running night and day will permit. But the demand is great. In practically every line of paper there is a serious shortage of production, with the possible exception of bookprint, and the publishers are not unanimous in agreeing with the opinion expressed by the Paper Controller that there is no shortage there. Generally speaking, however, the fact remains that at no period in the history of the paper trade in Canada has the scarcity of paper been so acutely felt and no immediate prospect of relief. Indeed paper dealers and manufacturers freely predict that there will be no ease-off in the situation for two or three months at least. Not only is the shortage likely to continue, but, according to one firm in Toronto, which is engaged in supplying pulpwood to the pulp mills, groundwood pulp is going to advance in price. It is reasoned that as lumber is soaring in price there is going to be more lumber taken out of the woods than pulpwood, to the detriment of pulpwood production, which may mean that the present high prices prevailing for paper may correspondingly ascend. It is worthy of note, however, that during the past two or three weeks the deliveries of wood to the pulp mills has increased owing to the better facilities afforded by the snow and consequently better sleighing, for getting the wood out. But it is predicted that with big money being made out of lumber the production of woodpulp is

bound to suffer, temporarily, at least.

"There is not only a serious shortage of newsprint paper in the West where there is a row over the failure of the Fort Frances Company to make the required shipments for home consumption in accordance with the order of the Paper Controller, but in Ontario many of the papers are feeling the pinch. Several daily papers have appeared in reduced size owing to the scarcity of paper and the mills have been put to their wit's ends to keep up the supplies to both daily and weekly papers. The criticism by the manufacturers is frequently heard that the publishers do not show a very great disposition to conserve and economise and one paper man commented on the reluctance of the publishers either to curtail their use of paper or to increase the price of their commodity in keeping with other items on the high cost-of-living scale. In regard to the latter suggestion, however, it is pointed out on behalf of the publishers, that with the satisfactory revenue coming in from increased advertising they would not be justified in raising their subscription rates. Indeed they would rather give a good deal more for the money in the way of enlarged papers if they could only get the paper stock. In the meantime the volume of advertising keeps up and the comic pages continue to regale the Sunday readers—which is all right for the readers and the publishers—but it is eating up a whole lot of newsprint paper which is a very scarce article these days.



"In high grade bonds there is a scarcity and it is predicted that they will take another jump. Rag stock is hard to get and what is obtainable commands a high price. The rag market generally is firm and groundwood pulp is exceedingly tight. In line with the pretty general advance in papers the patent insides supplied the weekly papers have gone up 2 cents per quire owing to the scarcity and high price of paper and the weekly publisher is now paying on an average of 20 cents per quire for his patent pages."

 Like The Hall Mark On Silver
Is The Watermark On Paper 

THIS WATERMARK

Guarantees  Quality
Look for it in all our Stationery

**Howard Smith Paper
Mills, Limited**

 Montreal 

**Interlake Tissue
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Manufacturers of a full line of White and Colored M. G. Tissues, Brown and Colored Light Weight M. G., Kraft, White and Colored Sulphate Wrap, all grades of fruit Wraps, Dry Proof Paper. A full line of Toilet Paper, Paper Towels, Paper Napkins, Decorative Crepe Rolls, Lunch and Outing Sets.

Head Office, 331 Telephone Building
TORONTO Mills at Merritton

The Conservation of Canada's Pulp

Canada's wise policy of benefitting by the home manufacture of her natural resources is exemplified notably in the pulp and paper industry. In 1908, according to government statistics, only 36 per cent of Canada's pulpwood cut was manufactured in the Dominion, whereas 64 per cent was exported raw. In 1917, over 70 per cent was manufactured in Canada, less than 30 per cent being exported in a raw state.

Ten years ago, the number of employees in the pulp and paper industry of Canada was about 9,000. The number of employees at present is estimated at 25,000, and the annual wage bill at \$20,500,000. The exports alone for the past fiscal year from this industry are around \$100,000,000. About 90 per cent of the newsprint manufactured in Canada is exported. More than one-third of the newsprint used in the United States is of Canadian manufacture.

Prospective increases in the capacity of Canadian plants will bring the production of newsprint during the coming year, on a conservative estimate, to a total of 850,000 tons.

The importance of all this in the maintenance and development of the economic structure of Canada can scarcely be over-emphasized. Obviously, it would be the poorest kind of public policy for the respective provincial governments to relax the existing embargoes upon the export of raw pulpwood cut from Crown lands. Such a

course would inevitably mean reducing the supplies of raw material available for Canadian mills, as well as the more rapid depletion of our pulpwood forests, resulting in their comparative exhaustion within a measurable period of time. About 1,000,000 cords of pulpwood is now exported in a raw state, all cut from lands in private ownership. Practically all of this goes to the United States.

The phenomenal growth and development of the pulp and paper industry in Canada serves strongly to emphasize the urgent need for the perpetuation of our great pulpwood forests, in order that this great industry may be permanent instead of merely transitory, as has proved to be the case in the greater portion of the eastern United States. There fire protection has been wholly inadequate and logging methods have been destructive, seeking, for the most part, the greatest immediate profit, without any conscious attempt to regulate methods of logging as to leave the cut-over area in a condition to produce another crop.

Fortunately, in Canada, the great bulk of the forests are in public ownership, and the public, as a whole, can afford to take thought for the distant future. The increasing employment of trained foresters by Government services, as well as by pulp and paper companies, offers distinct encouragement for the future.

The Pulp and Paper Industry

Americans Win Trade With Our Pulp

By A. E. BRYAN.

(Canadian Trade Commissioner to Japan)

During the first six months of this year Canada shipped paper pulp into Japan to the value of yen 1,238,457, as compared with yen 2,168,497 during the corresponding period of 1918. Only about half the quantity was received as compared with last year. During the same period, according to the official returns, the United States supplied Japan with pulp to the value of yen 2,557,526 in comparison with yen 480,341 for the first six months of 1918. Evidently American shippers have gained where we have lost, and it is to be hoped that the Canadian figures will pick up during these later six months. Of course there is the probability that much of the pulp imports credited to United States originated in Canada.

Americans on the Job.

This condition of affairs is not to be wondered at, however. American commission houses, have samples, prices and all information on hand. These large import firms usually have their own paper banto (paper salesman), who keeps in touch with all the paper mills and who builds up a regular clientele. One or two American mills have sent out their own man to work in co-operation with their agents. He supplies the necessary expert advice, attends to claims, and in general sees that his firm (or possibly a group of firms), get good service all round.

Canadian pulp and paper companies should send their representatives out to this country to study the market. So far as the writer is aware, there is only one large Canadian mill, which has its own agents here, who are recognized as one of the leading pulp importers in Japan, and who do a very large business.

Canadians' Big Chance.

In talking to one of the big Japanese paper pulp importers, it was said that Canadian makers could have the whole market to themselves if they were a little more careful in packing and grading. The Canadian pulp is stronger in fibre than either the Scandinavian or the American product. The main difficulty found with Canadian pulp is said to be its grading and packing, as sometimes third and second grade pulp is found packed up with what is supposed to be first grade. Another complaint is that pulp supposed to be 90 per cent air dry, when arrived in Japan and tested, sometimes showed only 70 per cent or 80 per cent air dry. It is therefore necessary to make claims on Canadian mills in many cases.

Countries Supplying Pulp.

The following figures will be of interest, as showing the countries supplying pulp to Japan during the first six months of 1919:—

	1919	1918	1917
	Yen.	Yen.	Yen.
Sweden	95,643	120,837	405,046
Norway	107,386		
United States.....	2,557,526	480,341	58,002
Canada	1,238,457	2,168,497	344,225
Other countries	3	4,109	25,760
Total	3,999,015	2,773,784	793,033

Very little Canadian paper has so far come on the market here, not because there has been no demand for it, however, but only because our mills have not catered to it in any way.

The demand for newsprint is very small. Japanese mills in Hokkaido and Karafuto can make practically all that is necessary for the domestic trade. Besides the Canadian product is too good for this market, as Japanese newspapers are printed on a very poor quality of paper. However, Canadian newsprint would no doubt be suitable for cheap grades of Japanese books, and a certain quantity could be sold for this purpose. The chief demand of this market is for wrapping, writing and art papers. The conditions of sale are the same as those explained above in connection with pulp. If Canadian mills get good representatives here, there is no reason why they should not do a good business. Most of the requirements are now coming from the United States as the subjoined statistics will show:—

Imports of Paper Into Japan.

	1919	1918	1917
	Yen.	Yen.	Yen.
Great Britain.....	1,158,938	545,484	637,686
Sweden	95,741	82,451	304,848
Norway	11,531	48,981	89,988
United States	9,406,834	3,022,262	621,356
Other countries.....	77,753	37,363	69,634
Total	10,750,797	3,735,541	1,723,515

New Paper Controller

The appointment of R. W. Breadner, commissioner of taxation, as temporary controller of newsprint in place of R. A. Pringle, K. C., was announced last week.

The controversy over the supplying of newsprint to the Winnipeg papers seems to be abating. The Fort Frances Company have been notified that just as soon as the Winnipeg papers are supplied the company will be allowed to ship to their customers in the United States.

St. Maurice Paper Company Limited

Head Office
522-524 Board of Trade Building
Montreal

MANUFACTURERS OF
NEWS PRINT, SULPHITE,
KKAFT, GROUNDWOOD
also Sawn & Dressed Lumber

Paper Mills, Cape Madeleine, Que.
Lumber Mills, Charlemagne, Montcalm,
St. Gabriel de Brandon,
Three Rivers.

The Spanish River Pulp and Paper Mills, Limited

Sault Ste. Marie - - Ontario

Daily Capacity.

500 Tons Newspaper
400 Tons Groundwood
220 Tons Sulphite
35 Tons Board

MILLS AT—

Sault Ste. Marie, Ontario.
Espanola, Ontario.
Sturgeon Falls, Ontario.

Cable Address

Price

Price Brothers & Company, LIMITED

MANUFACTURERS OF

Spruce Lumber, Lath, Cedar Shingles, Ties,

Pulpwood, Sulphite and Groundwood

Pulp, Newspaper, Cardboard, &c.

QUEBEC

SAW MILLS:

Batiscan Montmagny Cape St. Ignace Rimouski
Matane Salmon Lake Saguenay District

PAPER AND PULP MILLS:

Kenogami Jonquiere Rimouski

Howard S. Ross, K. C.

Eugene R. Angers

ROSS & ANGERS

BARRISTERS and SOLICITORS

Coristine Building, 20 St. Nicholas St., Montreal

Insurance News and Views

Fire Insurance In Canada During 1919

Cecil S. Wainwright writing in the New York Journal of Commerce, says:

"While 1919 will go down into history as "Peace Year," following the termination of the Great War, it has been anything but a year of peace in industry, in business or in politics: on the contrary, it has all over the world been a year of "riots, strikes and civil commotions." Notwithstanding Canada's share of these adverse conditions it has been a year of great prosperity throughout the Dominion—that is, if a general increase in almost all classes of business due to advances in values of stocks, building materials, etc., as well as in bank deposits, bank clearings, etc., accompanied by vast expenditures of money by individuals, by municipalities and by governments, can be taken as a criterion of prosperity. The discontinuance of numerous plants of formerly engaged in the manufacture of munitions of warfare and the existence of other post-

war conditions do not seem to have had any general adverse effect. As a matter of fact, a large number of erstwhile munition plants are now being utilized for the manufacture of implements and commodities appropriate to times of peace.

"On the whole, it may be said, that no single event of outstanding significance or importance to the fire insurance business has occurred during the year—that is to say, nothing unusual has happened to cause any marked change in the methods of conducting the business. This is said, however, with the qualification that hardly a day comes but brings with it some new aspect or phase of the business to be dealt with by the fire insurance man. It is only after a retrospective glance over a few years that one remembers and realizes the number and character of these frequently occurring changes, affecting and altering as they do the ways and methods of conducting the business."

Year's "Fire Waste."

It is pleasing to be able to record that no serious conflagration occurred during 1919. The value of the property destroyed in Canada during the eleven months ending November 30 is estimated at \$21,000,000, so that it is altogether likely that the "fire waste" for 1919 will approximate \$23,000,000, as compared with \$32,000,000 for 1918, and \$20,000,000 for 1917 and 1916 each respectively.

At the time this is written (December 30) it appears altogether likely that the year will not be an unsatisfactory one for fire insurance companies generally. There will no doubt be a considerable increase over the previous year in the total amount received by them for fire insurance premiums, chiefly due to increased values, etc. In addition, they have derived a considerable income from the various "side lines" that are now being written by most of them.

License Law Liberalized

In this connection it is interesting to note that whereas the Dominion Insurance act of 1910 permitted fire insurance companies to transact only five of the following classes of insurance, viz.: fire explosion, tornado, inland transportation, sprinkler leakage, hail and weather insurance, under the present act of (1917) the Superintendent of Insurance may now, upon the requisite deposits being made license a fire company to transact ten of the following classes, viz.: fire, explosion, tornado, inland transportation, sprinkler leakage, hail and weather insurance, automobile, bond, burglary, credit, accident, guarantee, plate glass, sickness and steam boiler insurance. A fire insurance company however, cannot also transact life insurance.

Recent Growth of Premiums

There has been a remarkable growth in the (net) premium incomes of the fire insurance companies licensed by the Dominion Government since 1904 as shown below:

	1904.	1914.	1918.
Canadian companies	\$2,681,274	\$5,016,654	\$5,570,095
British companies	8,343,664	13,710,908	18,658,712
American and French	2,144,941	8,771,599	11,725,601
	\$13,169,879	\$27,499,161	\$35,954,408

There has also, one regrets to note, been a considerable increase in the amount of insurance placed outside of Canada in companies not licensed to do business in Canada. This business a-

Continued on page 36.

BUSINESS INSURANCE

on the lives of the men who run the business is just as important as fire insurance on the property. Fire is a possibility but death a certainty.

The ready cash for a Canada Life Business Insurance Policy at such a time will readjust matters and carry on the business as nothing else can do. Ask for particulars.

CANADA LIFE ASSURANCE COMPANY
Home Office Toronto

Founded in 1806.

THE LAW UNION AND ROCK INSURANCE CO., LIMITED

OF LONDON.
ASSETS EXCEED \$50,000,000.
OVER \$10,000,000 INVESTED IN CANADA.
FIRE & ACCIDENT RISKS ACCEPTED.

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Agents wanted in unrepresented towns in Canada.

COLIN E. SWORD, Canadian Manager.
W. D. AIKEN, Supt. Accident Department.

UNION ASSURANCE SOCIETY LIMITED
OF LONDON, ENGLAND

FIRE INSURANCE, A.D. 1714.

Canada Branch, Montreal:
T. L. MORRISEY, Resident Manager.
North-West Branch, Winnipeg:
THOS. BRUCE, Branch Manager.
AGENCIES THROUGHOUT THE DOMINION.

Solid Growth

Up-to-date business methods, backed by an unbroken record of fair-dealing with its policyholders have achieved for the Sun Life of Canada a phenomenal growth.

Assurances in Force have more than doubled in the past seven years, and have more than trebled in the past eleven years.

To-day they exceed by far those of any Canadian life assurance company.

SUN LIFE ASSURANCE COMPANY OF CANADA
HEAD OFFICE—MONTREAL

LONDON AND SCOTTISH Assurance Corporation Limited.

Established 1862.
For All Classes of Life Assurance.

SCOTTISH METROPOLITAN Assurance Company, Limited.

For insurances against Fire, Accident, & Sickness; Guarantee Bonds; Elevator, Automobiles, Public and Teams, and Employers' Liability.

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"Solid as the Continent" policies, coupled with liberal dividends and the great enthusiasm of all our agents is the answer.

If you want to associate yourself with a Company that offers its representatives real service, write us. Some good agency openings are available.

Correspond with E. J. Harvey, Esq., Supervisor of Agencies.

NORTH AMERICAN LIFE ASSURANCE COMPANY

"Solid as the Continent"
HEAD OFFICE . . . TORONTO

Commercial Union Assurance Company Limited

OF LONDON, ENGLAND.

The largest general Insurance Company in the World,

Capital Fully Subscribed	\$14,750,000
Capital Paid Up	4,425,000
Life Fund & Special Trust Funds	75,578,630
Total Annual Income Exceeds	64,000,000
Total Funds Exceed	172,000,000
Total Fire Losses Paid	215,897,380
Deposit with Dominion Government (as at 31st Dec. 1918)	1,401,333

Head Office, Canadian Branch:
Commercial Union Bldgs., 232-236 St. James Street, Montreal, Que.

Applications for Agencies solicited in unrepresented districts.
W. J. Jopling, Manager Canadian Branch.



EIGHTY-EIGHTH

ANNUAL REPORT

THE BANK OF NOVA SCOTIA

CAPITAL PAID-UP, \$9,700,000

RESERVE FUND, \$18,000,000

PROFIT AND LOSS.

Balance Dec. 31st, 1918	\$ 749,694.51
Net profits for year, losses by bad debts estimated and provided for	1,925,478.39
	<hr/>
	\$2,675,172.90
Dividends for year at 16%	\$1,381,333.35
War Tax on circulation to December 31st, 1919	89,666.67
Contribution to Officers' Pension Fund	100,000.00
Written off Bank Premises Account	200,000.00
Transferred to Reserve Fund	200,000.00
Balance carried forward December 31st, 1919	704,172.88
	<hr/>
	\$2,675,172.90

RESERVE FUND

Balance December 31st, 1918	\$12,000,000.00
Transferred from the Bank of Ottawa	5,800,000.00
Transferred from Profit and Loss	200,000.00
	<hr/>
Balance forward December 31st, 1919	\$18,000,000.00

GENERAL STATEMENT AS AT DECEMBER 31st, 1919

LIABILITIES

Capital Stock paid in	\$ 9,700,000.00
Reserve Fund.	18,000,000.00
Balance of Profits, as per Profit and Loss Account	704,172.88
Dividends declared and unpaid	389,754.51
	<hr/>
	\$ 28,793,927.39
Notes of the Bank in circulation	23,266,962.68
Deposits not bearing interest	\$53,745,723.18
Deposits bearing interest including interest accrued to date	126,546,884.79
	<hr/>
	203,559,570.65
Balances due to other Banks in Canada.. . . .	1,823,524.72
Balances due to Banks and Banking Correspondents in the United Kingdom.. . . .	110,614.00
Balances due to Banks and Banking Correspondents elsewhere than in Canada and the United Kingdom	3,506,047.58
	<hr/>
	\$208,999,756.95
Acceptances under Letters of Credit	485,037.72
	<hr/>
	\$238,278,722.06

ASSETS

Current Coin.	\$11,806,787.18
Dominion Notes	20,714,771.75
Notes of other Banks	2,746,059.83
Cheques on other Banks	12,301,502.30
Balances due by Banks and Banking Correspondents in the United-Kingdom, and sterling exchange	2,436,755.59
Balances due by Banks and Banking Correspondents elsewhere than in Canada and the United Kingdom	4,392,976.43
	<hr/>
	54,398,853.08
Deposit in the Central Gold Reserves	15,500,000.00
Dominion and Provincial Government securities, not exceeding market value	13,764,851.75
Canadian municipal securities and British, Foreign and Colonial public securities other than Canadian, not exceeding market value	26,821,795.24
Railway and other Bonds, debentures and stocks, not exceeding market value	3,845,065.09
Demand loans in Canada secured by grain and other staple commodities	14,114,490.90
Call and demand loans elsewhere than in Canada	15,141,250.89
	<hr/>
	143,586,306.95
Call and demand loans in Canada secured by bonds, debentures and stocks	7,494,072.28
	<hr/>
	151,080,379.23
Deposit with the Minister of Finance for the purposes of the circulation fund	525,710.06
Loans to governments and municipalities	2,746,545.12
Other current loans and discounts in Canada (less rebate or interest)	66,171,447.43
Other current loans and discounts elsewhere than in Canada (less rebate of interest)	11,696,583.80
Liabilities of Customers under Letters of Credit as per contra	485,037.72
Overdue debts, estimated loss provided for	108,873.29
Bank Premises at not more than cost, less amounts written off	5,015,914.56
Real Estate other than Bank Premises	166,175.84
Other assets not included in the foregoing	282,055.01
	<hr/>
	\$238,278,722.06

CHARLES ARCHIBALD,
President.

H. A. RICHARDSON,
General Manager.

AUDITORS' CERTIFICATE.

We have examined the books and accounts of The Bank of Nova Scotia at its Chief Office and have been furnished with certified returns from the Branches, and we find that the above statement of Liabilities and Assets as at December 31st, 1919, is in accordance therewith. The Bank's investments and the securities and cash on hand at the Chief Office and at several of the principal Branches of the Bank were verified by us at the close of business December 31st, 1919 and in addition we visited the Chief Office and certain branches during the year, when we checked the cash and verified the securities and found them to be in agreement with the books. We have obtained all information and explanations required, and all transactions of the Bank which have come under our notice have, in our opinion, been within the powers of the Bank. And we certify that the above statement of Liabilities and Assets as at December 31st, 1919, is properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs according to the best of our information and the explanation given to us, as shown by the books of the Bank.

A. B. BRODIE, C.A.,
D. McK. McCLELLAND, C.A., Auditors
of the firm of Price, Waterhouse & Co.

Toronto, Canada, 15th January, 1920.

An English Garden City

The contention that it is the 'duty' of large employers of labour to provide decent housing for their workers has been freely combatted. Another argument is coming to the fore, that is likely to be more convincing because it is based on practical consideration, namely, that it is greatly to their advantage. One manufacturer who has adopted this method of 'prosperity sharing' has confessed that, whereas before housing accommodation was provided the labour turnover was 400 per cent, at present it is practically nil and labour unrest is a thing of the past.

It is being proved also that the new method of housing workers is susceptible of important economies and the creation of amenities and conveniences for home life such as have been hitherto the privilege of the rich.

The engineering firm of Ruston and Hornsby, Lincoln, Eng., have acquired an estate of 370 acres

near Lincoln, in the vicinity of a lake, known as the Swanpool, and are there building an industrial garden suburb with provision for 3,000 houses. The estate is being laid out on 'garden city' lines, with ample provision for shops, schools, institutes, recreation grounds, allotment gardens and other amenities. The housing will be managed on co-partnership principles and will not be confined to the employees of the firm.

One feature has special interest. It is proposed to carry out from a central station a communal supply of electricity and hot water for domestic purposes. It is claimed by the engineers that great economy may be secured by combining the production of electricity with the utilization of waste heat from the generating plant for the supply of hot water, which will be circulated among all the houses throughout the area. The development has already begun and some of the houses are ready.

Imperial Guarantee & Accident Co.

In its annual report for the year ended December 31, 1919, submitted at the meeting held in Toronto on January 15, the Imperial Guarantee and Accident Co. records a successful year. The company issued 21,686 policies for insurance of \$42,091,819. The premiums on new and renewed business amounted to \$450,570, with paid-for premiums of \$426,597. The increase in premiums on business written was \$87,785, and on paid-for premiums \$71,260. The interest earnings amounted to \$20,005, being in excess of the amount required to pay the regular dividend.

The influenza epidemic at the beginning of the year had the effect of abnormally increasing the loss ratio. The number of sickness claims dur-

ing the latter part of the year was back to normal, however. The assets of the company now amount to \$513,324.

After providing \$196,434 for unearned premium reserve and reserve for outstanding claims; and also providing for other liabilities, the surplus to policyholders is \$304,582, which, together with the uncalled subscribed capital of \$800,000, makes the available security for all contracts \$1,104,582.

The lines of insurance now written are: Personal accident, sickness, elevator, fidelity guarantee, plate glass, and automobile (including insurance of automobiles against fire). Application is now being made for a license to extend the company's operations to burglary insurance.

Fur-Farming Conference

A Conference of Fur Farmers, Fur Dealers and Trappers has been called by the Commission of Conservation to meet in Montreal on the 19th and 20th February. The programme for the conference is not yet complete, but will include addresses and discussion by the leaders of the

rapidly growing fur-farming industry. Fur-farming has passed the experimental stage and is now on a solid commercial basis. It is also hoped to have an exhibition of black, silver, and cross fox furs, the pelts of fur-bearers reared in captivity.

In 1913, the Commission of Conservation issued

X PUBLISHED ANNUALLY. X THE LONDON DIRECTORY

with Provincial & Foreign Sections, enables traders to communicate direct with MANUFACTURERS & DEALERS in London and in the Provincial Towns and Industrial Centres of the United Kingdom and the Continent of Europe. The names, addresses and other details are classified under more than 2,000 trade headings, including

EXPORT MERCHANTS

with detailed particulars of the Goods shipped and the Colonial and Foreign Markets supplied;

STEAMSHIP LINES

arranged under the Ports to which they sail, and indicating the approximate Sailings.

One-inch BUSINESS CARDS of Firms desiring to extend their connections, or Trade Cards of

DEALERS SEEKING AGENCIES

can be printed at a cost of 8 dollars for each trade heading under which they are inserted. Larger advertisements from 10 to 80 dollars.

A copy of the directory will be sent by parcel post for 10 dollars, nett cash with order.

THE LONDON DIRECTORY CO., LTD.,
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X BUSINESS ESTABLISHED 105 YEARS. X

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From—		
PortlandSaturniaJan. 24
PortlandCassandraFeb. 4
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TO GLASGOW via MOVILLE

New YorkColumbiaFeb. 7
New YorkColumbiaMar. 6

TO LIVERPOOL.

New York	.....Carmania	.....Jan. 29
New York	.....Carmania	.....Mar. 2
New York	.....Kais. Aug. Vict.	.....Mar. 27
New York	.....Carmania	.....Apr. 6
New York	.....Kais. Aug. Vict.	.....Apr. 27
New York	.....Carmania	.....May 11
New YorkKais. Aug. Vict.May 29

TO PLYMOUTH, CHERBOURG & LIVERPOOL.

New YorkKais. Aug. Vict.Feb. 25
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TO PLYMOUTH, HAVRE, SOUTHAMPTON.

New YorkRoyal GeorgeJan. 26
New YorkRoyal GeorgeMar. 9
New York	.....Royal George	.....Apr. 14
New York	.....Royal George	.....May 19

TO CHERBOURG & SOUTHAMPTON

New York	.....Mauretania	.....Jan. 30
New York	.....Imperator	.....Mar. 6
New York	.....Mauretania	.....Mar. 20
New York	.....Imperator	.....Apr. 3
New York	.....Mauretania	.....Apr. 17
New York	.....Imperator	.....May 1
New York	.....Mauretania	.....May 15
New York	.....Imperator	.....May 29

TO PLYMOUTH, HAVRE, LONDON.

New York	.....Saxonia	.....Feb. 12
New YorkSaxoniaMar. 23

TO PATRAS, DUBROVNIC & TRIESTE

New YorkPannoniaJan. 31
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For rates of passage, freight and further particulars apply to local agents or

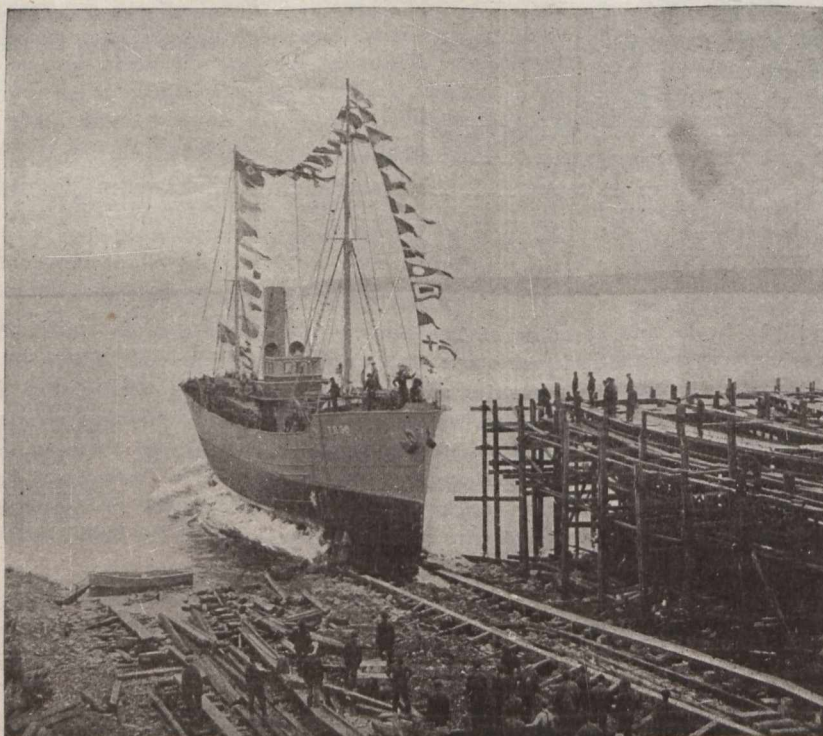
THE ROBERT REFORM CO., LTD.
GENERAL AGENTS
20 HOSPITAL STREET
23-25 ST. SACRAMENT STREET
MONTREAL, P. Q.

a report on Fur-Farming, for which there was a large demand. A supplementary report on this important industry will be issued early in the year.

An Unusual Feature.

"Plans have been made for four brides with concrete abutments in Coles county."—Mattoon Commercial star.

Davie Shipbuilding & Repairing Co., Ltd, Lauzon, Levis, P.Q.



TRAWLER
LAUNCHED
AT OUR
YARD

British Suggest New Bill of Lading

The Merchants' Committee of the London Chamber of Commerce is giving much attention to the proposition calling for a more simple bill of lading according to announcement made in the Trade Supplement of the "Times," which says that the Government East Indies Stores bill of lading may be taken as a sample. In the discussions which are certain to take place it seems very desirable that one point should not be overlooked. The provisions in the existing bills of lading fall, roughly, into two classes. The first class of clauses gives the shipowner certain liberties, and the second class frees him from responsibility in certain eventualities.

The granting of liberties may be as much in the interests of merchants as in that of shipping managers. Take the case of deviation, which may be illustrated by an example. If the owner of a ship, bound with cargo to Australia via South Africa, were to hear that, owing to strikes or other causes, bunker coals could not be secured in South Africa he might choose, under the power given him in the bill of lading, to deviate by sending his ship through the Panama Canal. Again, a ship intended to pass through the Panama Canal might, when the great landslide occurred some years ago, have been waiting there for months unless the ship-owner had had authority to deviate. Clearly such a course was as much in the interest of the owners of the cargo as of the owners of the ship. Similarly, ship-owners are given power under bills of lading to drydock their vessels with cargo on board, a proceeding which may very much expedite the completion of the voyage. These exceptional measures entail, as a rule, additional expenditure, which is itself a safeguard that they will not be used inadvicably.

Clauses in the bill of lading freeing owners from liability for damage such as might be caused by proximity to engines or by oil are quite different. At present merchants protect themselves against the risk of certain damages by insurance, and it is a question whether this insurance should be secured separately or should be granted by the shipowner. If the shipowners are to cover these risks then it is natural enough that the cost of the insurance should be included in the freight charges. This course will be favored by some merchants on the ground that there is at present a danger of their falling between the protection given by the shipowners and the underwriters.

The problem of bills of lading is closely linked up with that of losses caused by pilferage and the limitation of value. Some time ago the liability accepted by owners in the Australian trade was doubled i. e., to £200 per ton or £10 per cubic foot. It is understood that similar action has been taken by certain lines trading with the Far East. In this connection the following extract from a letter which has been received from shipping agents in the East is worthy of reproduction.

"First of all, clear instructions were given to our chief tallyman that when the hatches of a steamer were exposed at the commencement of discharge special inspection had to be made by him of the cargo on top to see whether it was possible for any of the ship's people to execute the pilferage. We ourselves also examined the cargo stowed on top. It was found that the uppermost cargo did not show any signs of theft; and it was only as the lower cargo was being discharged that the pilferage from cases became apparent. Such cases were of course, immediately brought on deck and examined by ship's people, stevedores, and ourselves, and proper notation made in accordance with the results of these examinations.

"The writer personally proceeded to the Cus-

toms when the inspection of the S.S.— cargo, against which about half a dozen claims had been lodged by consignees—took place. He found that old pilferage was the cause of the trouble and from the appearance of the packages the thefts must have taken place some months ago. In most instances the case had been broken into and the sole repaired rather skilfully by the use of similar wood so that a close inspection was necessary to detect the repair. On opening up the case it was found that just against that particular repaired part of the case several small packages of talcum, scent, toilet articles, rubber shoes, etc.) were missing. In one instance an unsuccessful attempt had been made to cut a piece from a length of velvet cloth, which was damaged in the attempt."

Montreal-Ottawa Grand Trunk Railway System.

Between the Metropolis and the Capital City service now in effect is:

	Daily.	Ex. Sun.	Daily.
Leave Montreal	8.15 a.m.	4.00 p.m.	8.05 p.m.
	Daily.	Ex. Sun.	Daily.
Arrive Ottawa	11.45 a.m.	7.30 p.m.	11.05 p.m.
	Daily.	Daily.	Ex. Sun.
Leave Ottawa	8.30 a.m.	3.30 p.m.	6.50 p.m.
	Daily.	Daily.	Ex. Sun.
Arrive Montreal	12 noon	6.30 p.m.	10.20 p.m.

In addition to high grade coaches, buffet parlor cars are operated on all trains, and a special feature is cars with large observation room at rear, that are popular with the ladies, and also have large smoking room for gentlemen. These cars will be on the 4.00 p.m. and 8.05 p.m. trains from Montreal, and the 8.30 a.m. and 3.30 p.m. trains from Ottawa.

FIFTEENTH ANNUAL REPORT BY THE DIRECTORS OF

The Imperial Guarantee and Accident Insurance Company of Canada

FOR THE TWELVE MONTHS ENDING THIRTY-FIRST DECEMBER, NINETEEN HUNDRED AND NINETEEN.

The Directors have much pleasure in submitting to the Shareholders their Fifteenth Annual Report for the twelve months ending 31st December, 1919.

BUSINESS: The Company issued 21,686 Policies for insurance of \$42,091,819.00. The premiums on new and renewed business amounted to \$450,570.69, with paid-for premiums of \$426,597.63. The increase in premiums on business written was \$87,785.04, and on paid-for premiums \$71,260.85. The interest earnings amounted to \$20,005.57, being in excess of the amount required to pay the regular Dividend.

The influenza epidemic at the beginning of the year had the effect of abnormally increasing the loss ratio. It is satisfactory to report, however, that the number of sickness claims during the latter part of the year is back to normal.

ASSETS: The Assets of the Company now amount to \$513,324.75, and the investments are all first class securities bearing good interest returns.

SECURITY: After providing \$196,434.00 for Unearned Premium Reserve and Reserve for Outstanding Claims; and also providing for other liabilities, the surplus to policy holders is \$304,582.81, which, together with the un-called subscribed Capital of \$800,000.00, makes the available security for all contracts \$1,104,582.81.

The lines of Insurance now written are: Personal Accident Insurance, Sickness Insurance, Elevator Insurance, Fidelity Guarantee, Plate Glass Insurance, and Automobile Insurance (including insurance of Automobiles against fire). Application is now being made for a license to extend the Company's operations to Burglary Insurance.

The Certificate of the Auditors is appended to the Financial Statement as to the audit of the Company's affairs.

Toronto, 15th January, 1920.

HERBERT C. COX,
President.

Statement for Year Ending December 31st, 1919. BALANCE SHEET.

Assets.	
Bonds and Debentures.....	\$360,829.75
Loans on Mortgages.....	9,800.00
Real Estate.....	1,365.51
Accrued Interest.....	2,226.38
Outstanding Premiums, net.....	67,622.32
Other Assets.....	17,566.80
Cash in Banks and on Hand.....	52,606.05
	<hr/>
	\$512,016.81
Liabilities.	
Reserve for Unearned Premiums.....	\$140,112.45
Reserve for Unfiled Claims.....	56,321.55
Sundry Accrued Accounts.....	3,000.00
Dividend, payable January 1st, 1920.....	8,000.00
Capital Stock Paid.....	\$200,000.00
Contingent Reserve Fund.....	15,000.00
Surplus over Liabilities.....	89,582.81
	<hr/>
	304,582.81
	<hr/>
	\$512,016.81

AUDITOR'S CERTIFICATE.

We have audited the accounts of the Imperial Guarantee and Accident Insurance Company of Canada for the year ending December 31st, 1919. We have examined the Securities and verified the Cash and Bank Balances, and we certify that the above Balance Sheet shows the true position of the Company at that date.

CLARKSON, GORDON & DILWORTH,
Chartered Accountants.

Toronto, 15th January, 1920.

Fire Insurance in Canada during 1919
Continued from page 32

mounted to \$318,763,720 (in amounts insured) during 1918 (the latest figures available), as compared with \$283,423,680 in 1917. If the average rate paid to the fire companies in Canada for 1918 (namely, 1.06) could properly be used as a basis upon this unlicensed insurance (in so far as it has been reported to the Dominion Government), it would appear that these premiums would in 1919 reach no less a sum than \$3,378,895. Up to date all efforts to make the outside companies receiving these unlicensed premiums bear a fair share of the cost of running the country—particularly as they escape paying anything for office rents, salaries, etc., in the Dominion—have proven unsuccessful.

Increase in Licensed Companies.

The following table shows the number of fire insurance companies operating in Canada under Dominion licenses at the close of the years 1904, 1914 and 1918, respectively:

	1904.	1914.	1918.
Canadian	10	24	28
British	19	24	36
Foreign	*9	†34	‡50
Total	38	82	114

*U. S. companies only. †31 U. S. companies, 3 French companies. ‡46 U. S. companies, 4 French companies.

According to the latest official list issued by the Dominion Insurance Department (dated October 4, 1919,) the number of companies now operating in Canada under Dominion fire license is 128.

Of the twenty-eight companies operating at the end of 1918 and classified above as "Canadian companies," eleven are owned and operated by British companies. Besides the companies which operate under Dominion licenses, there is a large

number which do business in a single province only under licenses issued by that province.

Rates Steadily Decreasing

In these days when one hears so much about the decrease in the purchasing power of the dollar and the increase in the cost of almost everything purchasable, it is pertinent and enlightening to point out that in Canada to-day the dollar actually buys more fire insurance protection than it did in pre-war days. This is evidenced by the following tables which show the rates paid in the Dominion during the last five years for each \$100 of amount insured:

1914.	1915.	1916.	1917.	1918.
\$1 17	\$1 16	\$1 09	\$1 07	\$1 06

It is even of greater interest to glance at similar tables for the ten years preceding 1914:

1904.	1905.	1906.	1907.	1908.
\$1 60	\$1 60	\$1 53	\$1 50	\$1 50
1909.	1910.	1911.	1912.	1913.
\$1 41	\$1 36	\$1 35	\$1 29	\$1 21

While the chief causes contributing to these remarkable reductions in rates have been the improvements that have taken place in building constructions, fire brigades, water pressure, etc., and the increases that have been made in the number of sprinkler equipments etc., it cannot be gainsaid that the present rates are not high enough to provide for the ever growing expenditures for salaries, clerical and other services, supplies, expenses of inspections and (heaviest advance of all) the increasing taxes imposed by federal, provincial and municipal governments—and in addition to permit the companies to set aside the serves which they should be enabled to do to provide for heavy conflagrations. In this connection it may be pointed out that the companies in making up their rates are never able to make an adequate provision for conflagrations. In spite of the comfortable feeling on the part of the citizens of every community that a conflagration would never occur in their midst

the dread of such a disaster is ever present in the mind of the prudent underwriter and must be taken into consideration by him when he gives away a portion of his premiums to his reinsuring companies for the purpose of covering the excess of his own net lines.

BLACK DIAMOND

FILE WORKS

Established 1863. Incorporated 1897.
Highest Awards at Twelve International Expositions, Special Prize, Gold Medal, Atlanta, 1895.

G & H. Barnett Co.

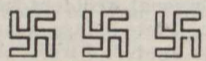
PHILADELPHIA, Pa.

Owned and Operated by
NICHOLSON FILE COMPANY.

Dominion Textile Company, Limited

Manufacturers of
COTTON FABRICS

MONTREAL
TORONTO WINNIPEG



Dominion Shipbuilding Co.

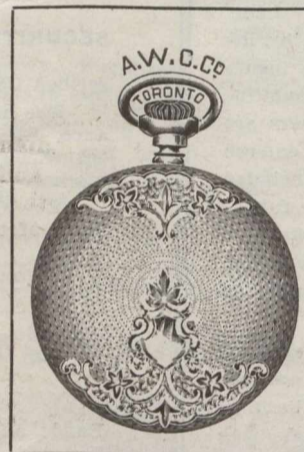
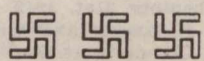
LIMITED

STEEL SHIPBUILDERS



BATHURST STREET - HARBOR FRONT

TORONTO



"Cashier"

- - and - -

"Fortune"

GOLD FILLED

WATCH CASES

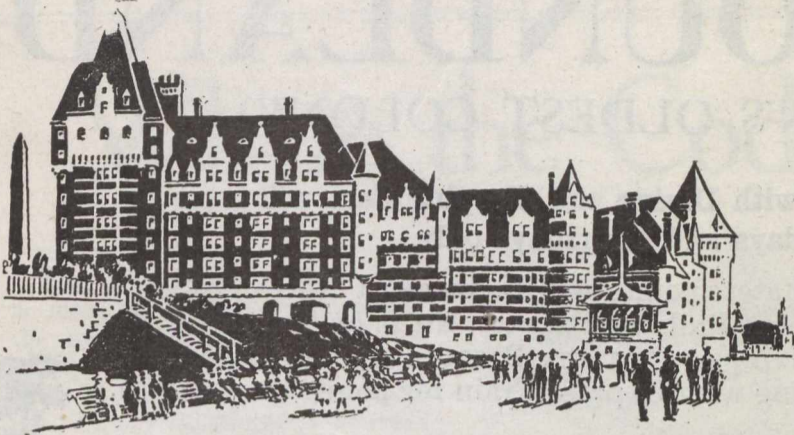
TRADE MARK

The American Watch Case Co.

OF TORONTO, LIMITED

Manufacturers of Gold, Silver and Filled Watch Cases

TORONTO, ONT



CHATEAU FRONTENAC, QUEBEC.

Canadian Pacific Railway Hotel System

Canadian Pacific Hotels from the Atlantic Ocean to the Pacific set the standard for hotel accommodation in Canada. Each hotel is distinctive in appointment and style; each has the same superb Canadian Pacific service

THE CHATEAU FRONTENAC, Quebec, is a famous hotel in the most characteristic city of North America. Standing on Dufferin Terrace, it commands magnificent views of the River St. Lawrence.

THE ROYAL ALEXANDRA, Winnipeg, so well known and so popular with travellers that it has been enlarged to twice its original size.

THE PLACE VIGER, Montreal, is an ideal hotel for those who prefer quietness and yet wish to be within easy reach of the business centre.

THE PALLISER, Calgary, a handsome new hotel of metropolitan standard, from the roof of which the snow-capped Canadian Pacific Rockies are visible.

THE HOTEL VANCOUVER, a spacious hostelry that overlooks the Straits of Georgia and contains 650 rooms.

THE EMPRESS, Victoria, a luxurious hotel that appeals to the artistic sense, in a city of picturesque homes and Old Country atmosphere.

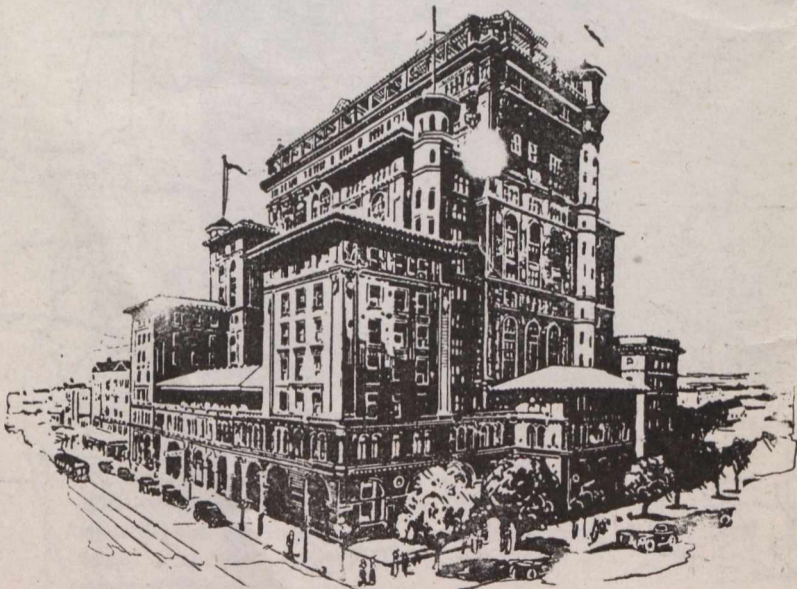
The above hotels, and others similarly situated at strategic points on the main transcontinental line of the Canadian Pacific Railway at McAdam, N.B., Sicamous, B.C., and Penticton, B.C., are open all the year round. Six other hotels, including four in the wonderful Canadian Pacific Rockies, are open in summer only.

Any C.P.R. Passenger Agent will furnish particulars, or write

C. E. E. USSHER,
Passenger Traffic Manager

F. L. HUTCHINSON,
Manager-In-Chief Hotel Dept.

CANADIAN PACIFIC RAILWAY, MONTREAL



HOTEL VANCOUVER, VANCOUVER.

The Hartt & Adair Coal Co.

DEALERS IN THE
DELAWARE & HUDSON COMPANY'S
LACKAWANNA COAL

TELEPHONE MAIN 5645

146 Notre Dame Street West - MONTREAL

BRITISH COLONIAL FIRE INSURANCE COMPANY

Authorized Capital \$2,000,000.00
Subscribed Capital 1,000,000.00
Paid-up Capital 247,015.79

General Fire Insurance Business Transacted.

THEODORE MEUNIER,
Manager.

B. A. CHARLEBOIS,
Assistant Manager.

H. M. CONNOLLY & CO.

MEMBERS
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Canada's Leading Hotel THE WINDSOR Dominion Sq. MONTREAL

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European Plan Exclusively

Centrally situated in the heart of the shopping and theatrical district. Service unsurpassed

JOHN DAVIDSON, Manager

Chimneys Globes Pressedware Bottles Jars Tumblers

HIGHEST QUALITY TANK GLASS PRODUCTIONS
Flint, Light Green, Dark Green, Blue, Opal, Amber

OWEN'S MACHINE MADE WARE---for all Closures

Dominion Glass Company, Limited

Head Office: MONTREAL

Export Office: MONTREAL

Factories: MONTREAL TORONTO HAMILTON WALLACEBURG REDCLIFF

See NEWFOUNDLAND

(BRITAIN'S OLDEST COLONY)

For the Winter Months, an Express Train with Dining and Sleeping Cars will leave St. John's on Sundays, Tuesdays and Thursdays only.

Connection from Canada and United States' points will be made at North Sydney, after arrival of the Canadian Government Railway Express, No. 5, on Tuesdays, Thursdays and Saturdays, the steamer arriving at Port aux Basques on Wednesday, Friday and Sunday morning, there connecting with Express Train for points between Port aux Basques and St. John's.

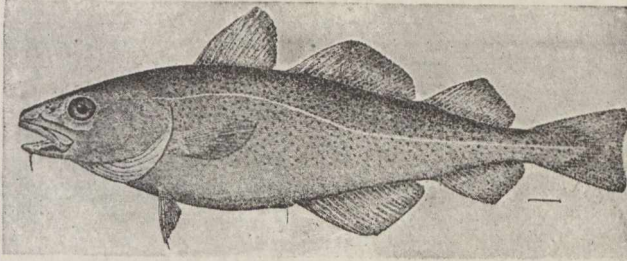
For further information, apply to

F. E. PITMAN, General Passenger Ticket Agent,
REID NEWFOUNDLAND COMPANY,
ST. JOHN'S, NEWFOUNDLAND.



Where the Codfish Come From

The climate of Newfoundland is more temperate than that of the neighboring Maritime Provinces; the thermometer rarely sinks below zero in winter, while the summer range rarely exceeds 80 deg. F.



Newfoundland Crown lands for farming purposes may be had for thirty cents an acre. The Island's agricultural development is going ahead by leaps and bounds.

WHETHER YOU WISH TO FISH FOR SPORT OR FOR PROFIT
:-: COME TO NEWFOUNDLAND :-:

HER fishing resources for either the commercial fisherman or the sportsman are the greatest in the world. They now produce well over fifteen million dollars of wealth per annum, and they are only beginning to be developed.

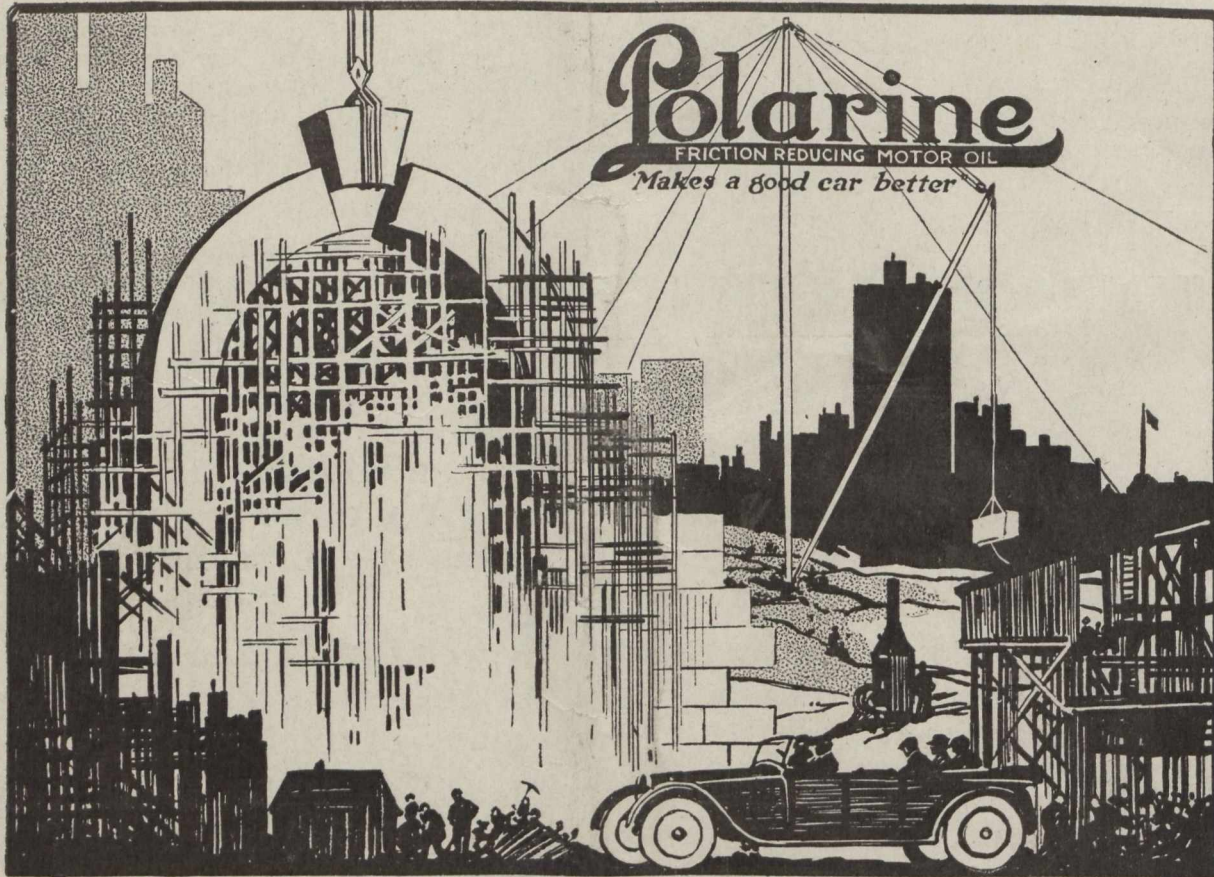
Newfoundland is the home of the cod fish and this forms the largest item in her fish production. But the island also produces large quantities of herring, salmon, lobster and many of the lesser fishes.

Heretofore these have come on the markets of the world in the dry-salted and pickled condition. But the frozen fish industry is rapidly developing. The latest reports from the British markets affirm that "the recent arrival of Newfoundland frozen fish was superior to the fresh fish often received from the Iceland grounds."



Newfoundland's forest wealth is large. The mineral resources are only partially known, although the iron mines on Bell Island have an output of 1,500,000 tons, and the industrial possibilities are attractive from every point of view.

The Government of Newfoundland gives generous aid to agricultural development. The value of agricultural products now approximates over \$4,000,000. Sheep raising is being encouraged and the progress in that direction is remarkable.



Like the Keystone in the Arch

Correct lubrication is as important to your motor car as is the Keystone to the arch. Without correct lubrication your motor will not last or give you the full service built into it by the maker.

Imperial Polarine is the ideal winter lubricant for all motors. It lubricates freely, even at low temperatures—is fluid enough to flow between rubbing parts of the most delicate mechanism—preventing friction, minimizing wear and efficiently lubricating.

Correct lubrication by means of Imperial Polarine means a smooth running motor, instant acceleration and dependable power. By using Imperial Polarine you get more miles per gallon of gasoline, have fewer repair bills and use less oil. Every ounce gives full lubrication value.

Three grades for cylinder lubrication

IMPERIAL POLARINE **IMPERIAL POLARINE HEAVY** **IMPERIAL POLARINE A**
light medium body *medium heavy body* *extra heavy body*

each the same high quality, but formulated specially for varying engine designs.

There are also special Imperial Polarine greases for transmission and differential lubrication.

Imperial Polarine is sold in six sizes—half-gallon, gallon, and four gallon sealed cans, 12½ gallon steel kegs and half-barrels and barrels. You can get the grade best suited for your car from dealers everywhere.

IMPERIAL OIL LIMITED

Power ~ Heat ~ Light ~ Lubrication
 Branches in all Cities