

PAGES

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The
Journal of Commerce

TRADE REVIVAL *and* EXPANSION CAMPAIGN
WESTERN - CANADA - NUMBER 8





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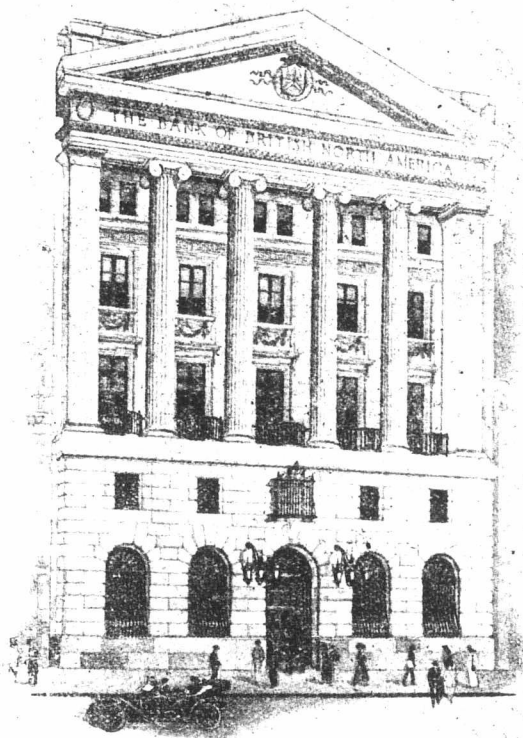
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FOREWORD

BY THE
HON. W. S. FIELDING
EDITOR-IN-CHIEF

IN the early days of the war somebody invented for Canadian use the slogan, "Business as Usual." Probably it served a good purpose in constantly reminding us that there was much to be done beyond the drill halls and the camp grounds in planning for Canada's part in the winning of the war. The slogan is seldom used now. It is no longer appropriate. The people are awakening to the fact that neither in the arena of commerce nor in the world of public affairs will it hereafter be sufficient to carry on business "as usual", and that conditions are arising which call for new thought and new effort.

"New occasions teach new duties,
Time makes ancient good uncouth,
He must upward still and onward,
Who would keep abreast of truth."

But while the situation is thus calling for new lines of thought and action, it is full of hope and encouragement. If Canada has much to do to meet the new conditions, she can face the task with courage and confidence, for she has proved her capacity for doing to an extent that is surprising to many of her people. In various ways she has given evidence that when the right spirit prevails, when her people are heartily united, they can do great things.

On the side of military organization for the war, although there is still much to be done to raise the full force desired, what has already been accomplished is remarkable, considering that our citizens in time past have given so little attention to military affairs. For a people, devoted through all their lives to the arts of peace, to raise in two years, under a voluntary system, three hundred and fifty thousand men for the war, armed and equipped, a large portion of them sufficiently qualified by training and service to enable them to take their place with Britain's finest soldiery on the battlefields of France and Belgium, is an achievement of which Canadians may well be proud. In the field of munition making, too, wonders have been accomplished. The mechanical skill of our workmen has been developed in a striking manner, until our factories are able to take a part in the production of munitions which is contributing materially to the Empire's war service. In the field of finance remarkable things have been accomplished. Accustomed as we were for generations to look to Great Britain for most of the capital required for the development of the country, we had to face a stoppage of that supply, except that a sum has been loaned by the Imperial Government to meet part of our war expenses in Europe. This stoppage of money from England was at the beginning a cause of much anxiety to all concerned in financial affairs. But the situation has been bravely faced. The Canadian banking institutions and the Canadian people have been able to finance Canada's needs to a very gratifying extent. Immense sums have been raised by our own people for the war service, and more can be provided when it is required. In the great primary industry of agriculture, while sending many of our farmers to the war, Canada has carried on the work of production efficiently, growing and harvesting last year an enormous crop, and giving promise of an output this year which, while short of that of 1915, will still be a large harvest. All the immediate problems in military, financial and industrial affairs have been met with a courage and a success which may well hearten our people and give them new confidence in the future of the country. Burdens the war is bringing, and there will be heavier ones to come. But they are met bravely and borne cheerfully.

The end of the war will present in their most urgent form new problems that are now coming into view, and many old ones will require more serious consideration than they have usually received in the past. To provide for the care of those who return from the war in a disabled condition, and for the families of those who have given their lives for the Empire; to replace in the work of civil life those who will no longer wear the Khaki; to find employment in the ordinary business of the country for the many who are now temporarily employed in the making of munitions; to bring into Canada the best class of immigrants and to lead them into the lines of occupation best adapted to their condition and most likely to make for the development of the country; to enlarge our home industry by supplying from our own factories, efficiently and economically, many of the things that in the past have been brought from the countries that are now our enemies, countries with which we shall hereafter desire to trade little if at all; to strengthen and broaden our relations with our ordinary markets; to look abroad and avail ourselves of the opportunities for marketing the products of our various industries in friendly countries with which we have heretofore had but few dealings; to improve the condition of the masses of the people, so that patient toil and faithful service shall have their reward in comfortable and happy homes; to make the work of government, Federal, Provincial and Municipal, clean, intelligent and in harmony with the progressive spirit of the age; to equitably distribute the burdens of the war so that they may fall as lightly as is reasonably possible on those to whom the battle of life is hardest; to find a common ground upon which the sometimes conflicting interests of East and West may be brought together; to promote toleration and mutual respect between races and creeds, and harmony and co-operation between labor and capital, so that there may be unity of effort to create an intelligent, patriotic and God-fearing citizenship—these things open out a field of opportunity and of duty that appeals to all that is best in Canadian life. There is every reason to hope and to believe that the appeal will not be in vain.

W. S. Fielding

Government of the Province of Manitoba

BALANCE SHEET, NOVEMBER 30, 1915

CAPITAL ASSETS		CAPITAL LIABILITIES				
Dominion of Canada.		Invested in Provincial Property				
Capital Account—Settlement under Cap. 32, Geo. V., 1912	\$ 7,631,683.85	Stocks and Bonds—		Advanced to and repayable by Drainage and Judicial Districts		
School Land Sales Fund—Cash retained at Ottawa	3,829,338.96	(see Schedule appended)		Together		
	\$11,461,022.81	Manitoba Government	Revenue Producing	Non-Revenue Producing		
Property Assets—Book Values.		Manitoba Government				
Provincial Buildings, Furnishings and Grounds (see Schedule appended)	\$11,171,443.74	Stock	\$ 6,975,666.66	\$1,946,666.67	\$2,344,000.00	
Telephone System (see Balance Sheet appended)	19,162,000.31	Provincial Debentures	5,095,044.67	8,041,933.32	1,845,108.66	
Grain Elevator System (see Balance Sheet appended)	1,198,000.30	Drainage Debentures		10,000.00	1,887,853.66	
Emerson Bridge	41,256.34	Municipal Telephone Debentures assumed by Province	177,000.00		177,000.00	
Expenditure on Good Roads	354,665.02		\$12,247,711.33	\$9,998,599.99	\$6,076,962.32	
Court House at The Pas—Site	6,942.76				\$28,323,273.64	
	23,184,423.62	Special Funds—(see contra).				
Capital Expenditure by Drainage and Judicial Districts, Etc.		Sinking Funds derived from Drainage and Judicial Districts			\$ 461,011.61	
For value of securities issued or guaranteed by the Province of Manitoba which will be repaid by Sinking Fund Installments (see contra)	\$ 5,727,962.32	Other Funds derived from Consolidated Revenue:				
Less—Balance thereof unexpended	418,311.32	Telephone Replacement Trust			326,160.82	
	\$ 5,309,651.00	Elevators Replacement Trust			19,458.25	
Canadian Northern Railway Bond For value of Provincial Debentures issued for the construction of the Minnesota Section (see contra)	343,000.00				\$ 806,630.68	
	5,652,651.00	Bank Overdraft:				
Investment for Redemption of Manitoba Government Stock.		Incurred in respect of New Parliament Buildings			231,291.12	
Cash and Debentures held in England	284,333.79	Advances Received from Revenue for Provincial Buildings and Grounds				
Cash on Hand	1,000.00	From May 16, 1915, to date			162,853.67	
Municipality of Strathcona Debentures	4,999.00	Capital Surplus:				
	289,332.79	Being Excess of Capital Assets over Capital Liabilities.			14,048,414.71	
Investment of Special Funds—(see contra):		Note.—In addition to the above Liabilities, the Province has guaranteed the Principal and Interest on Securities as follows:				
Cash on Hand	789,474.63	Canadian Northern Railway Securities			\$25,502,873.33	
Current Account—Due from Revenue	17,163.05	Municipal Debentures, et al.			1,418,000.00	
	806,637.68	(see Schedule appended)			\$26,920,873.33	
Amounts Available for Specific Capital Outlay Exclusive of Provincial Buildings and Grounds		The Province has also guaranteed the Interest only on Municipal Debentures of a total par value of \$39,500.00, and has guaranteed the rentals payable to the Northern Pacific Railway Company, in respect of certain Railways in Manitoba leased.				
Cash on Hand—						
Good Roads	648,675.31					
Judicial Districts	250,000.00					
Drainage Districts	19,418.22					
Telephones	298,638.57					
Grain Elevators	24,418.82					
Court House at The Pas	44,000.00					
Total Cash	\$ 1,333,130.16					
Less—						
Current Account—Due to Revenue	24,705.06					
	1,308,425.10					
Current Account—(Liabilities unpaid by late Administration)						
Provincial Debentures sold at par to liquidate Old Liabilities	\$ 1,000,000.00					
Deduct—						
Amounts Advanced by Revenue for Expenditure on Public Buildings, etc., from December 1, 1914, to May 15, 1915	537,977.18					
	462,022.82					
	\$43,572,463.82				\$43,572,463.82	
CURRENT ASSETS		CURRENT LIABILITIES				
Cash on Hand	\$ 962,334.77	Accounts Payable.				
Other Accounts.		School Grants	\$ 157,250.00			
Balance Due from Drainage Districts for Interest paid out	90,836.55	Other Accounts	57,439.42			
Revenue Earned—Not yet Collected	123,847.57	Interest Accrued	237,411.84			
Balance Due on Seed Grain Loans, 1915	8,131.87	Sales of Shares Act	302.85			
Advance to Public Utilities Commissioner	3,000.00				\$ 452,404.11	
Advance to Trust Estates of Bona Fide Persons	2,291.43	Revenue Received in Advance.				
Supplies on Hand	66,293.44	Dominion Government Subsidy, Liquor and Automobile License, Taxes, etc., received in advance			266,545.19	
Cash in Hand of Clerk of Contingencies	15,000.00	Drainage Districts.				
Deposit with King's Printer	2,500.00	Interest received in advance			51,443.07	
Expenses Paid in Advance	22,561.23	Revenue Surplus.				
	335,438.11	Being Excess of Current Assets over Current Liabilities	\$ 594,700.96			
Current Account.		Surplus as at November 30, 1914	594,700.96			
Due from Trust	6,166.84	Deduct—				
Due from Capital	7,552.01	Excess of Current Expenses over Revenue from December 1, 1914, to May 15, 1915	\$448,718.98			
	13,718.85	Less—				
Advances Made to Capital Account for Expenditure on Provincial Buildings and Grounds		Excess of Revenue over Current Expenses from May, 16, 1915, to November 30, 1915	275,570.46			
from May 16, 1915, to date	162,853.67	Excess of Current Expenses over Revenue for the year ending November 30, 1915	173,148.52			
Advances on Account of Investigations of Public Buildings, regarded as a Deferred Asset (see below)		Amount deposited during the year for Redemption of Manitoba Government Stock	68,332.82			
(see below)	111,289.41				241,481.34	
		As above	\$ 353,219.62			
		Current Account—				
		(Liabilities unpaid by late Administration)				
		Provincial Debentures sold at par to liquidate Old Liabilities	\$ 1,000,000.00			
		Deduct—				
		Amounts advanced by Revenue for Expenditure on Public Buildings, etc., from Dec. 1, 1914, to May 15, 1915	537,977.18			
			462,022.82			
			\$ 1,585,634.81			
		DEFERRED LIABILITIES				
		Deferred Surplus	\$18,667,960.32			
		Advanced out of Revenue on Accounts of Investigation of Public Buildings	111,289.41			
			\$18,779,249.73			
		COMBINED SURPLUS NOVEMBER 30th, 1915				
		Capital Surplus	\$14,048,414.71			
		Revenue Surplus	853,219.62			
			\$18,667,960.32			
		Deferred Surplus	18,667,960.32			
		Total Combined Surplus	\$33,069,594.65			
			J. G. STEELE,			
			Comptroller-General.			

Business Enterprise of Saskatchewan Farmers

The adventure in business co-operation made by the farmers of Saskatchewan when five years ago they decided to erect and operate country grain elevators for themselves, with the backing of the Provincial Government, has justified the success predicted by the supporters of the plan.

In five seasons the Saskatchewan Co-operative Elevator Company has built up a business through which it now owns and operates 261 grain elevators in Saskatchewan; it has handled during the same period 93 million bushels of farmers' grain; it has met in full all its obligations to the Provincial Government; it has paid each year both cash and stock dividends to shareholders; has financed the erection of its Head Office building, and at 31st July, 1915, showed reserves of \$305,018.08. Its balance sheet for the year ended 31st July 1916 will be issued shortly, and promises to show a further and marked strengthening of its financial position. The Company is now building a terminal elevator at Port Arthur, Ontario, and financing the undertaking itself.

The establishment of the co-operative elevator system was the result of an agitation by the Saskatchewan Grain Growers' Association in the years 1908, 1909 and 1910 for relief for the farmers of the Province from existing abuses in the marketing of grain. They desired government ownership of country elevators. However, in 1910 the Saskatchewan Government appointed a Commission who recommended not Government ownership but a co-operative scheme, to which the farmers were agreeable. The scheme was adopted by the Legislature and made operative in the Saskatchewan Co-operative Elevator Act, passed in March 1911. The formation of the Company was quickly under way, provisional directors were appointed, twenty-five Locals were organized, a general meeting was held, and by the time the 1911 crop was ready for harvesting the farmers owned 46 elevators. They handled 3¼ million bushels of grain that autumn.

Ninety-one elevators were erected or purchased in the second year, a record unrivalled in the history of elevator building, and nearly four times as much grain was handled, namely, 12,899,226 bushels. 1913 saw a further increase of 55 elevators and 6,777,557 bushels of grain. In 1914 the Company handled 13,764,653 bushels of grain through 210 elevators, and during the same seasons of 1915-16 operated 230 elevators, handling approximately through its elevators and by platform loaded cars 44,000,000 bushels.

In 1911 the Company handled 3.16% of the total marketed portion of the Saskatchewan crop.
In 1912 the Company handled 9.78% of the total marketed portion of the Saskatchewan crop.
In 1913 the Company handled 12.39% of the total marketed portion of the Saskatchewan crop.
In 1914 the Company handled 15.41% of the total marketed portion of the Saskatchewan crop.

The Commission Department.

In June 1912, it was decided the growth of the business demanded that the selling of the Company's grain should not in future be entrusted to agents, however competent and trustworthy, and the necessary steps were taken to organize a Sales and Commission Department with offices in Winnipeg, Manitoba, which department has been most successful. A staff of about fifty is now employed at the Winnipeg office. To this department was entrusted by farmers during the season just past, the selling of 93% of the grain passing through the Saskatchewan Co-operative elevators, an entirely voluntary action of the part of shippers, no obligation whatever being laid upon those who store in the co-operative elevators to ship their grain when loaded into cars, to the Commission Department of the Company.

Season	Number of Shareholders	Number of Elevators Operated	Grain handled through elevators, Bushels.	Grain handled on commission, Bushels.
1911-12	2,565	46	3,262,426	.....
1912-13	8,722	137	12,899,226	12,205,000
1913-14	12,575	192	19,676,783	19,449,000
1914-15	14,742	210	13,764,653	13,643,000
1915-16	15,922	230	39,000,000	40,000,000
1916-17	18,000	261	(approx.)	(approx.)

Upon the application of a sufficient number of agriculturists from any district, and the fulfilment of certain conditions, the directors may at their discretion, establish a "Local" of the Saskatchewan Co-operative Elevator Company, Ltd., at that point and erect an elevator. The aggregate crop acreage of the agriculturists applying must represent a proportion of not less than 2,000 acres for each 10,000 bushels of elevators asked for. When duly organized, each Local appoints a Local Board of Management.

Saskatchewan.

A Brief Review.

By HON. WALTER SCOTT,
Ex-Premier of Saskatchewan.

Since the boom days, from 1905 to 1913, when great activity occurred in land settlement, building construction and the distribution of farm supplies, trade has not been so active as during recent months, nor has business been conducted on a better basis than is being done at present. The recovery from the financial depression of 1914 is, of course, due to the great development of agricultural production and the enterprise of Saskatchewan farmers who are so largely the wealth producers of our province as to dwarf in comparison all other industries.

This improvement in trade is not, however, traceable to a return of the speculative spirit from which no province of Canada was immune. On the contrary the fact has now been pretty clearly realized that obligations have to be met out of earnings rather than borrowings, and recent events have shown that no class is more ready than our farmers to apply their revenue to the payment of their debts.

We had occasion in 1914 to exercise a very mild restraint upon a few creditors whose confidence in the future of our province was apparently no greater than their faith in humanity; but the abundant crop of 1915 together with moderation on the part of those who buy, combined with caution on the part of those who sell, will, I trust, forever prevent the return of such conditions.

Saskatchewan has a larger proportion of rural to urban population than any other Canadian province and is therefore quite dependent upon the manufacturing industries of other communities. Consequently the prosperity or otherwise of the Saskatchewan farmer reacts very directly and very promptly upon the commercial channels through which his trade requirements flow. And while a large part of the 1915 crop, valued at \$210,000,000, was applied to the reduction of old liabilities, a substantial sum is being used for the purchase purchase of commodities inseparably connected with agricultural operations. It is perhaps a little too early to predict what the harvest of 1916 will be, but it is safe to say that the outlook is bright for the realization of one of the "good" crops for which our province is famous. The wheat acreage is estimated to be 12 per cent less than in 1915, but the condition of the crop is so satisfactory that our Department of Agriculture is calling for twenty thousand men to help harvest it.

Therefore, trade is good and it is going to be better. Our prosperity is based on agriculture. We have no "war babies."

WALTER SCOTT,
Premier of Saskatchewan.

The General Meeting of the Company is held annually at Regina, to which each Local is entitled to send one voting delegate. There are nine Directors in office, chosen from among the shareholders, and elected by the voting shareholders. Three Directors retire and three are appointed at each annual meeting, the retiring Directors being eligible for re-election.

The amount necessary to build an elevator, is about \$8,400.00, and the shareholders or farmer co-operators subscribe the full amount. The capital stock is divided into shares of \$50.00 each. Each applicant for shares must be an agriculturist, and no one may hold more than twenty shares. The shareholders pay 15% at the outset, the Provincial Government furnishing the remaining 85% on the security of the elevator itself, and of the uncalled capital stock. The 85% is repayable to the Government in twenty equal annual instalments covering principal and interest, and up to date all payments have been promptly and fully met. Both as a co-operative plan and as a business enterprise, the Company has succeeded even beyond all expectations. The last balance sheet (year ended July 31st, 1915) shewed the

Authorized Capital at	\$2,225,000.00
Subscribed Capital at	2,042,650.00
Paid up Capital at	503,116.00
Reserves	503,018.08

The net profits for our season's trading are:—	
1911-12	\$ 52,461.60
1912-13	167,926.86
1913-14	285,181.61

The 1915-16 figures are not yet ready. The volume of business largely increased, and while the profits are not exactly determined, it is known that they will be much larger than ever before. A continuous audit of the accounts and inspection of the books and

(Continued on page 9).

Conditions in British Columbia

A Summary of Industrial and General Conditions as They Exist in the Third Year of the War.

By HON. W. J. BOWSER,
Premier of British Columbia.

I appreciate the privilege, accorded to me, along with other provincial premiers, of contributing an article for a special edition of The Journal of Commerce, in a "Trade Revival and Expansion Campaign."

I am glad to know that your valuable Journal is engaging in a campaign of this nature, and that it intends to devote one special edition to the Western provinces. British Columbia, we think, is not always fully understood in the eastern provinces. We have peculiar and unusual conditions to deal with and these have affected the situation here very materially since, and immediately preceding, the outbreak of the war. We were then beginning to suffer a reaction from a considerable era of over-speculation in land and urban real estate. Our big railway programme, which caused a very large circulation of money, was draying to a close. The government had been engaged, as all our western governments had, in large public improvements. Municipalities had accumulated heavy liabilities in carrying out extensive betterments of all kinds. This large expenditure of money was ceasing. When the war broke out the situation was greatly accentuated. There was a great deal of unemployment and the non-employed had to be taken care of. All of our industries were seriously affected, which in turn reacted upon the commercial community. Our conditions were not unlike those which obtained generally throughout Canada, but owing to our geographical situation we could not recover so quickly. Eastern Canada was in a position, owing to its industrial organization and nearness to the seat of war, to begin almost immediately to benefit from the immense demand for munitions and supplies of war. We were not. For a whole year our industries received no orders and comparatively little since. And, worse than that, one of our greatest industries, lumber, which normally had been producing about \$30,000,000 a year, was faced with a serious situation. The Middle West, our principal market, offered few orders and local building was stopped. The export trade, in which a new and large demand was created by way of the Panama Canal, could not be taken advantage of for lack of ocean bottoms and the temporary closing of the Canal itself. Private individuals, business men, municipalities and the government were carrying heavy overhead fixed charges, with greatly reduced revenues. I have presented you the dark side.

In the second year of the war everything was changed for the better. Mining in 1915 reached its high water mark of prosperity and is going still stronger. The lumber industry has greatly improved, owing to demand in the Middle West, and the prospects of the export trade, through the government's policy of encouraging shipbuilding, are stimulating the coast mills everywhere to increased production. There are now ten ships under construction contract to look after the trade, and further contracts are under consideration. In eight or nine months we shall have at least twelve ships ready for charter. The fisheries are exceedingly prosperous and 1915 was the banner year for agricultural production. Owing to heavy enlistments the question of unemployment has been completely done away with. Notwithstanding what might be called the hard times, British Columbia, since the war began, has contributed about 33,000 men to the Army, has helped largely in Belgian and French relief, has contributed very large sums to patriotic and Red Cross funds, and is now organizing extensively in connection with the employment of returned soldiers. We have a considerable way to get back to our former flourishing financial conditions, but we are going well in that direction, perhaps on sounder lines. Our slogan now is "production," and we shall not in future regard far as our land can pay dividends on the basis of real estate as a basis of prosperity except in so what it can produce.



PROVINCE OF ALBERTA

FREE LAND FOR SETTLERS

ALBERTA'S natural resources are tremendous in variety and scope. Lands, timber, minerals and water powers are only in the infancy of development, providing large increments in value and affording unrestricted opportunity for the economical advance of the country.

ROOM FOR MILLIONS

ALBERTA has the largest area of unbroken fertile land in the world under one government suitable for growing wheat, and all kinds of cereals free for homeseekers.

RAILROADS AND TELEPHONES

THREE Transcontinental Railroads are already built across the Province, and are racing to the Pacific Coast. The Hudson's Bay Railway connects with the Alberta systems and gives the province a new and shorter outlet to the East. In addition to these branch railroads extend throughout the province in every direction. Alberta was the first Province in Canada to own and operate its own telephone system which now serves about 28,000 subscribers.

MIXED FARMING

The rapidly increasing transportation facilities of the Province are promoting the development of mixed farming.

The farmers, particularly of the Central and Northern portions of our Province, have their horses, cattle hogs, sheep, poultry and dairy products as well as a surplus of grain. No country in the world surpasses Alberta's opportunities for mixed farming.

DEMONSTRATION FARMS

And free Provincial Schools of Agriculture are now available for settlers. These provide special opportunities for observing the best methods of farming operations and obtaining both technical and practical agricultural information.

HORSES

ALBERTA is the Kentucky of Canada, with regard to horse breeding.

Owing to its high altitude, dry and invigorating atmosphere, short and mild winters, its nutritious grasses and inexhaustible supply of clear, cool water, it is pre-eminently adapted for horse breeding, and the Alberta animal has become noted for its endurance, lung power and freedom from hereditary and other diseases.

Nearly all the breeds of horses known are represented on the farms and ranches of Alberta.

High standards are being set by horse fanciers. The province has already won high honors in competition with the greatest breeders of the world.

SHEEP

The fine herbage of the prairies proves to be excellent sheep feed. Several large flocks are run in various portions of the province, and have been giving most handsome returns.

As yet few farmers have added sheep to their programme of mixed farming, but a profitable opening awaits them. Supplementary foods are easily provided by growing rape, turnips and winter rye.

SWINE

HOGS WITHOUT CORN. Thousands of excorn belt farmers in Alberta stand ready to answer the question; they have found that, although there is no plant that will produce more pounds of pork per bushel of grain, they have in Alberta cereals, which are more easily grown, and have a feeding value, pound for pound, almost equal to Indian corn and far surpassing it in the quality and flavor which they impart to meat.

They have learned that oats for growing pigs and barley for finishing purposes is a combination hard to beat, even in the corn belt.

For Full Information apply to

Hon. DUNCAN MARSHALL

(Minister of Agriculture)

EDMONTON

ALBERTA

P. Burns & Company, Limited

Head Office, Calgary, Alberta

PACKERS AND PROVISIONERS
LIVE STOCK DEALERS

MANUFACTURERS AND PROPRIETORS OF

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Hams, Bacon; Lard Sausage, Butter, Eggs and Poultry

The BRAND that guarantees quality in product—prepared under the most
sanitary and modern methods.



Packing Houses: CALGARY, EDMONTON, VANCOUVER

Wholesale and Retail Markets throughout Alberta and British Columbia
All Houses under Government inspection.

(Continued from page 7.)

records of the Company is made under the supervision of the Provincial Auditor, the cost and expense of the audit being borne by the Company.

There are 18,000 farmer shareholders participating in the profits of the Company. In each of the last five years a dividend in one year of six per cent and in four years of eight per cent has been paid to the shareholders out of profits. The sum of \$11.00 has also been added to the paid up value of each share subscribed in the first organization year. Shares subscribed in subsequent years have had a proportionate amount added to their paid up value out of profits, this sum having been taken from the profits and credited to paid up capital. Fifty per cent of the profits remaining on hand, after all expenses and a dividend not exceeding 10% have been paid, must, under the Act of Incorporation be placed in Elevator Reserve Account.

The Act of Incorporation provides, among other alternatives, for the distribution of surplus profits in the form of patronage dividends — at the discretion of the Company. So far, no patronage dividends have been paid. The Directors and Shareholders have decided that, meantime, at any rate, it is in the interests of the Company to accumulate surplus profits (after a dividend has been paid) and increase the paid up capital and reserves. The wisdom of this policy is evidenced by the fact that the Company has been able to finance the erection of its own Head Office Building, and is now financing the building of a terminal elevator. A further distribution of profits yearly should have entailed great additional expense, with a very small return to the individual farmer. By conserving a certain portion of their earnings, and using it, co-operatively, for logical development, the farmers are receiving profits and benefits of infinitely greater value to each one of them.

Year by year the application for the erection of new elevators far outnumber what the Company is able to overtake and absorb into its system in one season. Consequently, during the building season of 1916, the number of new locals organized, and elevators constructed, had to be restricted to 30. The Company now has a total of 260 Locals organized.

The first number of "The Saskatchewan Co-operative Elevator Company News" appeared in April last. It is a sixteen-page bulletin in which the Company publishes bi-monthly, for the purpose of keeping its shareholders in close touch with their own Company and its activities.

The Head Office staff at Regina, numbering 100, is housed in a two-story building erected for the purpose, and owned by the organized farmers of the Province. It cost approximately \$80,000.00.

Terminal Elevator.

Legislation was introduced at a recent session of the Provincial Legislature so amending the Act under which the Company is incorporated as to allow of its financing and building a terminal elevator. Having in mind the success which has attended their efforts as country elevator owners, it is natural that the farmers, through their own organization, should have cast a business eye on the possibilities of a co-operative terminal elevator at the head of the Great Lakes. For the successful operation of a terminal, sufficient grain is the fundamental thing. In their own country elevators for four seasons the farmers of Saskatchewan have had the grain, but they have not had the terminal. By the time the 1917 crop is ready to be harvested they will have the terminal too. Thus are they planning to operate for their own benefit and profit another important and extensive branch of the grain handling trade. The Co-operative terminal will be situated at Port Arthur, Ontario, and will have a capacity of 2½ million bushels.

The building of elevators and the handling of an immense volume of business does not, however, in itself fulfil the purpose for which the Saskatchewan Co-operative Elevator Company was formed. Is the farmer in any better position over the marketing of his grain? There is good evidence that he is much better off. As the Company grows more influential, it is correspondingly easier for it to control the practices of the grain trade. A farmer receives a better price for grain marketed through the co-operative elevator than he would receive from a private company did the Co-operative Elevator not exist. Further, it is almost impossible to find any station where the price paid by the private companies is not determined by the price paid at the Co-operative Elevator. It is hard to say what this gain to the farmers amounts to, but conservative estimates place it at, at least, three cents per bushel.

Special binning of the farmers' grain now represents about two-thirds of the Co-operative Elevator Company's business. Other companies, prior to the entrance of the Saskatchewan Co-operative Elevator Company into the grain trade, made quite inadequate provision for this class of business, nor did representations from the farmers change the condition. These, and other reforms, stand to the credit of this Company. Abuses arise partly from apathy and indifference on the part of those who suffer them, and a frank insistence on fair dealing, such as it is impossible to voice through co-operation, creates in time the atmosphere in which abuses cannot thrive.

Co-operative enterprise is doing more than amending the evils of the grain trade. It is educating and producing men from among the farmers to direct the affairs of farmers. On the Local Board men are learning to thresh out their own problems, rather than to agitate that others should come to their relief; in the country elevator, buyers are expected to adhere to the principle that honesty is the only sound rule to follow; in the Head Office and on the Directorate, farmers are becoming men of affairs in the handling of their own business, and the interests which surround and affect it.

Co-operation is a spirit as well as a method, and nothing can stand in the way of its prosperous future but the attitude of farmers themselves.

PROVINCE OF ALBERTA

Province Has Land in Limitless Quantity for the Settlers From Every Part of the Empire and the United States. Agriculture Witnessing a Great Revival. Attended With Fruitful Results in this Growing Province is Every Department of Agricultural Industry. Some Trade Revival and Expansion Proofs.

By CHARLES S. HOTCHKISS.

Chief Publicity Commissioner for Alberta.

Alberta is an agricultural country, and though its future history will witness a wonderful development in those industries dependent upon extensive mineral resources, the calling of the farmer embracing grain culture and live stock breeding will never fail in the land that possesses the soil and climate of the Foothill Province of the West.

The importance of Alberta to Canada lies in the fact that it has land in limitless quantity for the settlers from every part of the Empire and the United States. Railway development in Alberta will open more agricultural land than is possible in any part of America. The trek of the American farmer after the golden sheaf has begun and will continue until all the homestead and cheap land is taken up.

Agriculture to-day is witnessing a great revival. Nowhere will the new agriculture be attended with more fruitful results than in the new Province of Alberta.

Alberta is no longer the exclusive home of the ranchman. The great ranges have become vast grain fields, and where the cowboys drove their herds myriads of farms and homes have sprung up. The wilderness has been transformed by the railway. Towns and cities mark a new feature in the landscape and a new era has opened in the history of the province.

The variety and grandeur of the physical features, the diversity and extent of the natural resources of Alberta, represent in an outward form the infinite variety and opportunity of life within its borders. Its development bears an important economic relation to the growth of the Dominion of Canada and one might say to the Empire. Its importance lies in the fact that it contains one of the largest and richest solid areas of agricultural land in Canada or of any other British colony, and can sustain a dense and permanent population. In the early days it was the home of the most powerful of the Indian nations of the whole northwest. Its luxuriant pastures supported vast herds of antelope, deer and buffalo, and its mountains great canyons and lakes comprised the richest territory exploited by the fur companies. To-day the population is increasing at the rate of about 50,000 per year and attracting settlers from all parts of the world who find Alberta a place where opportunity and advancement is limited only by their own initiative and energy.

In 1901 the population was 65,000, in 1906 it was 185,000. The census of 1911 gave a population of 385,000. To-day the population is at least 550,000. If the same rate of increase continues for the next five years (and we believe it will) the population of the province will be nearly a million.

During the past five years the grain production has increased from 22,000,000 to 164,000,000 bushels.

But these figures do not tell the whole story of crop production, by any means. Not only has Alberta demonstrated within the last ten years that she can grow crops of wheat, oats, barley and flax unsurpassed on the continent, but she has also found that she can grow other crops which were not attempted ten years ago, or which were grown in such small quantities that they did not figure in the returns. Among the crops so classed may be mentioned rye, which last year amounted to 463,000 bushels, and alfalfa totalling in 1915 over 34,000 tons. Others crops of importance were potatoes, 5,155,000 bushels; turnips and other root crops, 1,356,000 bushels, mixed grains 67,080 bushels, fodder corn 5,700 tons; hay and clover, 311,000 tons.

Though Alberta is well adapted for wheat and other grains, stock raising was the first industry of importance in the development of the province, and still holds the premier place. The most prosperous

districts are those where wheat farming is carried on in connection with the live stock and dairying industries. Many conditions favorable to the live stock industry are peculiar to Alberta.

Livestock in Alberta:	1911.	1915.
Horses	407,153	620,000
Dairy Cows	147,687	210,000
Other Cattle	592,163	915,000
Sheep	133,592	525,000
Swine	237,510	400,000

The dairy products of Alberta for the year 1915 were worth 11,000,000. The production of creamery butter was in the neighborhood of 7,000,000 pounds compared with 2,000,000 lbs. in 1910. The province has an expert system of grading, handling and marketing its butter, which has resulted in a reputation on outside markets that assures to the Alberta dairyman top prices for its products. The dairy produce of Alberta in 1915 was worth more than the entire cereal crop of the province: wheat, oats, barley and flax, only ten years ago.

Roads have been built, schools and churches established, and the hardships of pioneer life to a large extent have become memories. Yet all this has been accomplished in a decade, and there is every reason to believe that the province is only on the threshold of its prosperity. Alberta has more agricultural land than any other province, but as yet less than four per cent of it is under crop. Moreover, Alberta has one of the largest irrigation enterprises in the world. Irrigation means, eventually close settlement, intensive farming, and enormous production in proportion to the area under cultivation.

Three transcontinental railways already traverse the province to the Pacific Coast. The Edmonton, Dunvegan and British Columbia Railway now reaches the great Peace River district and the great Waterways Railway will reach Fort McMurray in a few weeks.

The Hudson's Bay Railway connects with the Alberta Systems and gives the province a new and shorter outlet to the East. In fact, Alberta comprises a centre of production and distribution from which the great railway systems of Canada radiate to Vancouver, Prince Rupert and Fort Mann on the west, Fort Churchill on Hudson Bay and to Port Arthur and Duluth on the great lakes on the East.

Local transportation and communication are being developed as rapidly as the credit and resources of the province will warrant. 326 miles of new railway was completed last year. Over 13,600 miles of Government telephone lines are now in operation with 28,000 subscribers.

Intellectual and social advancement has kept pace with the material growth.

In legislation and education the province has followed the best models of the other provinces of Canada and other communities.

Education is under complete control of the State, law and order is administered with a jealous regard for justice according to British traditions.

The Statute book respects all classes, and affords equality to all.

Albertans have a healthy pride in their province. Its resources and the development thereof they regard as a task commensurate with the scourge and ideals of a great people, and at the same time one which duty and patriotism shall enable them to fulfill. It is their ambition to create a provincial spirit that shall enrich our national life with the elements as pure as the vitalizing air of her hills and forests.

CHARLES S. HOTCHKISS,
Chief Publicity Commissioner for Province of Alberta.

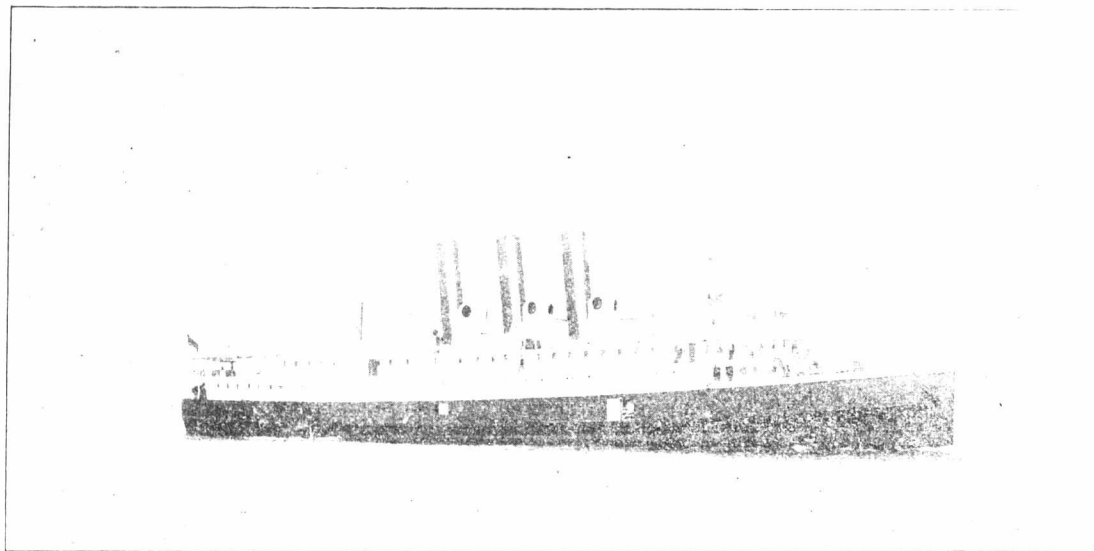
Edmonton, July 20th, 1916.

**GRAND
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THE NEW WAY
To Pacific Coast Points
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*SEE -- "The Rockies at their Best"
"The North American Alps"
"The Norway of America"
and Alaska.*

With Snowclad Peaks, Alpine Valleys, Glaciers, Waterfalls and Beautiful Fjords



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Grand Trunk Pacific Coast Steamships provide De Luxe Service North and South from Prince Rupert.

Three days saved--Best Equipment and Service.

Stop-over allowed at principal points.

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Furnished free on application to
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W. P. HINTON,
Traffic Manager,
Winnipeg, Man.

W. E. DUPEROW,
Asst. General Passenger Agt.,
Winnipeg, Man.

The Hudson's Bay Company Pioneers in Canadian Trade Who Have Also Done Much to Modernize Canadian Business.

Operating Some of the Best Equipped Departmental Stores in America. New Stores in Calgary, Edmonton and Vancouver. Biggest Fur Traders in the World—150 Fur Trading Posts in Canada and Labrador. Land Departments. Managed by Capable Commissioners in Each Department.

THE HUDSON BAY COMPANY.

The Trade Revival editions of The Journal of Commerce would be incomplete without a reference to the Hudson's Bay Company, a company which was doing business in the western provinces, long before the first transcontinental railway had crossed the Canadian prairies. The history of the Hudson's Bay Company is closely interwoven with the history of Canada. Long before it was known that the prairies could produce wheat and root crops and graze cattle, this company, the pioneer trading company of the Dominion, had its agents scattered throughout the northwest territories. It is largely due to these early Hudson's Bay Company pioneers that the fertility of the western soil was discovered. Most of them were men of hardy Scotch and English stock.

But the Hudson's Bay Company has not allowed its age to be its chief attractions. Year by year they have kept apace of the times, assisting in the development of the Canadian west as no other company has, with the possible exception of the Canadian Pacific Railway. In their lands department they laid out magnificent town sites and both the town sites and agricultural lands were sold on easy and attractive payments. In their stores department they have kept abreast of every new idea with the result that to-day the Hudson's Bay departmental stores are among the best in America. In their fur trading department they have held the reputation which has been theirs for so many years, a reputation for fairness in buying the raw furs, and for expert skill in making the furs ready for the retail market.

Incorporated under Royal Charter, the Hudson's Bay Company has withstood the test of time. They have passed through periods of prosperity and of depression in Canada, but backed by shareholders in the Old Country who have never lost faith in Canada, the Company has added its share to the development and progress of the Dominion.

The Fur Trading Posts.

Originally the Hudson's Bay Company were almost exclusively fur-traders. They were among the pioneers who introduced various wearing apparel, manufactured products and food stuffs among the Indians, in the days when such exchange was more acceptable than money, since in those days there was no place to spend the money. The company are still fur-traders and the popularity which they won in the earlier days has been maintained in a century of progress.

To-day the Hudson's Bay Company has approximately 150 fur trading posts of which about 30 are in the Province of Quebec, 28 in Ontario, 16 in Manitoba, 15 in Alberta, 16 in British Columbia, 14 in the North West Territories, and 3 in Labrador. No company in America has such an elaborate chain of fur trading posts and few if any companies in the world, have had such an important share of the fur trading business.

The Hudson's Bay Company distributes their furs among the various fur dealers of the world, the chief fur clearing house being in the Old Country.

Hudson's Bay Stores.

The Hudson's Bay Departmental stores are now among the best equipped on this continent. It has been a long jump from the little log trading stores of years ago to the big four to six storey brick and stone blocks which house the present stores. The Company has so improved its departmental stores that frequently they have been accused of being ahead of the times in the cities in which they have from time to time improved the service.

When the real estate boom had long since subsided and when building operations in the west were being curtailed, the Hudson's Bay Company erected a number of new stores. In Calgary they erected a handsome store of such elaborate design and equipment, that Calgarians themselves suggested the store was too big for the city. At the same time the Company was making big additions to their store in Edmonton, which included big building additions and a complete renovation of the interior and exterior of the old building, which was itself a four storey brick structure occupying half a city block. The Edmonton and Calgary stores are among the finest departmental stores in Canada.

Another new development in the stores department was the erection of the handsome new building in Vancouver. Started before the outbreak of the war, this building was carried on to completion and has been opened in the past year. It is the finest departmental store building in British Columbia, and is another evidence of the faith in the Canadian provinces which is held by the men behind the Hudson's Bay Company.

The Winnipeg stores of the Hudson's Bay Company has always been one of the most popular shopping places of Winnipeg, the Company giving there the same quality of service which has marked all their stores as shopping places for people who care. In other smaller towns and cities there are Hudson's Bay Stores and without this company's stores, the earlier settlers would have had a hard time getting along in the newer settlements. They have also been first in equipping stores in the Peace River country. But not content with being first, they have succeeded also in being "BEST" when increased population has called for improvement.

The Land Departments.

The land departments of the Hudson's Bay Company has been as valuable to the settlement of the Canadian west as has the stores and fur departments. The Company never lost an opportunity in laying out their town-sites carefully and with regard to future development, and the Hudson's Bay town-sites have never been hastily or carelessly put on the market. In selling farm lands and town properties, the Company has always given gen-

erous terms of payment and has always treated its purchasers with every courtesy. Since the commencement of the war, the Company has had thousands of dollars withheld in land payments, but in every possible case they have given due consideration to the conditions caused by the war and have acted generously with their overdue land debtors.

The Hudson's Bay Company is in a position to offer more expert advice on western agricultural lands than almost any other one company in Canada. The pioneers of the Company were also the pioneer land settlers. The company has valuable townsite and agricultural lands for sale in every one of the western provinces, and the investors looking for locations which should prove valuable after the war, are likely to get safer treatment from this pioneer company than in dealing with companies of recent birth.

Directorate of Business Men.

The directorate of the Hudson's Bay Company is made up of men who have years of business experience. The commissioners for each department have been chosen with care and with a view to always making better the service to the Company's many patrons. An example of this may be seen in the stores department which under H. E. Burrbridge has become second to none on this continent. N. H. Bacon, Commissioner of the Fur Trade Department has had under his care the overseeing of one of the biggest fur trading chains of posts in the world. Mr. Bacon had been one of the most enthusiastic commissioners for the Hudson's Bay Company and has been largely responsible for the maintenance of the very friendly relations which have continued to exist in every locality where the company has its fur trading posts and for the success of every department of the fur trading business of the company. 150 fur trading posts in addition to the various duties connected with the bringing of the furs to the markets, including the exporting to the Old Country, etc., is no small care, and in addition to these duties, Mr. Bacon is also agent for the Company in New York.

The people of Canada will always feel a pride in the Hudson's Bay Company, a Company which though the pioneers in the settlement of the west, have not grown mouldy with age, but have done more to improve the conditions of the west through their departmental stores, lands and fur departments than any other one Company in the Dominion.

The Directors of the Company are as follows:—R. M. Kindersley, Governor; Charles V. Sale, Deputy Governor; Committee: Vivian H. Smith, Sir William Mackenzie, C. Lubbock, Richard Burbridge, A. M. Nanton and Hewitt Skinner; Advisory Committee in Canada, A. N. Nanton, Chairman; G. Allan, George F. Galt, Commissioners; Land Department, J. Thompson with H. F. Harman, Assistant Commissioner; Stores Department, H. E. Burrbridge; Fur Trade Department, N. H. Bacon, also Commissioner for New York Agency.

The Business Enterprise

OF

Saskatchewan Farmers

SHOWS IN THEIR

Co-operative Country Elevator System

In 1911 the Saskatchewan farmers started a Co-operative Company of their own, and under the provisions of the Saskatchewan Co-operative Elevator Company Act entered the grain marketing business. They have remedied many abuses which existed; have operated their elevators efficiently, and have been financially successful.

Four Seasons' Trading Results

Capital		Reserves & Dividends	
July 31st, 1915		July 31st, 1915	
Share Capital Authorized	- \$2,225,000.00	Reserves	- - - \$305,018.08
Share Capital Subscribed	- 2,042,650.00	Cash Dividends Paid	- - 84,552.15
Share Capital Paid Up	- - 503,116.50	Stock Dividends Paid	- - 273,507.00

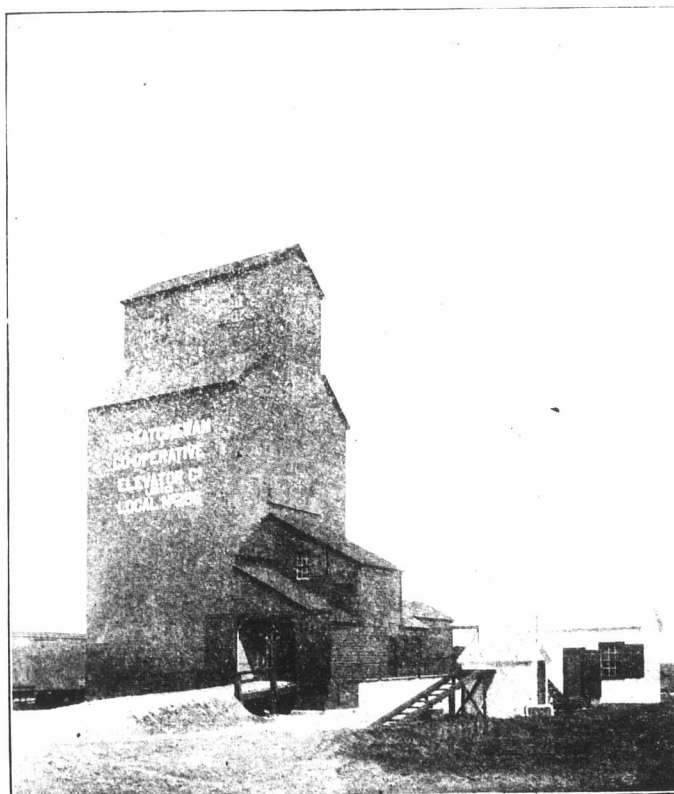
93,000,000 bushels of grain handled in five seasons.

All grain sold through the Company's own Commission Dept. at Winnipeg.

261 country elevators owned and operated by the Company.

Better prices paid for wheat by the load.

Grain marketing conditions greatly improved.



A Terminal Elevator now under construction at Port Arthur, Ont., financed from accumulated profits.

All profits belong to the organized farmers.

Over 18,000 farmer shareholders.

Head Office Building at Regina, Sask. owned by the Company, financed from accumulated profits.

500 employees (approximately) on the pay roll.

Saskatchewan Co-operative Elevator Co., Ltd.

REGINA - CANADA

Farm Production of Western Canada 1915

(Dominion Government Figures, December 31st, 1915)

	Acreage	Total Production	Yield per Acre
Wheat	11,774,700	342,948,000	29.20 bushels
Oats	6,290,000	334,840,600	53.23 "
Barley	962,000	35,317,200	36.71 "
Flax	801,000	10,559,000	13.18 "
Rye	25,300	693,600	27.41 "
Mixed Grains	5,200	175,500	33.75 "
Potatoes	85,900	12,687,000	147.69 "
Roots	21,600	5,449,000	252.27 "
Hay and Clover	399,000	712,000	1.78 tons
Alfalfa	17,500	47,300	2.70 "
Fodder Corn	21,100	74,000	3.51 "

The Value of all Field Crops Raised in Western Canada in 1915 was estimated by the Dominion Government on December 31st at \$424,000,000.

Live Stock Western Canada 1915

(ESTIMATES BY DOMINION GOVERNMENT)

Horses, 1,617,437

Cattle 2,687,566

Sheep 793,601

Swine 1,015,679

Western Canada Grain Facts

AREA

MANITOBA	161,172,480 acres.
SASKATCHEWAN	160,416,000 acres.
ALBERTA	162,765,200 acres.

Less than eleven per cent. of the area land was under cultivation in 1915

CROP STATISTICS, MANITOBA, SASKATCHEWAN AND ALBERTA.

Year	Bushels Wheat	Bushels Oats	Bushels Barley	Bushels Flax
1906	94,201,984	94,244,000	16,888,000	1,023,510
1907	70,922,584	74,513,561	19,187,449	1,732,065
1908	96,863,689	108,987,855	24,050,645	3,165,320
1909	118,109,000	163,998,752	30,542,000	4,833,167
1910	110,165,155	105,400,393	12,587,806	4,148,315
1911	208,366,000	226,665,000	27,966,000	9,938,500
1912	201,280,000	242,321,000	31,600,000	25,978,000
1913	209,262,000	242,413,000	31,060,000	17,366,000
1914	140,958,000	150,843,000	19,535,000	7,083,000
1915	342,948,000	334,840,600	35,317,200	10,559,000

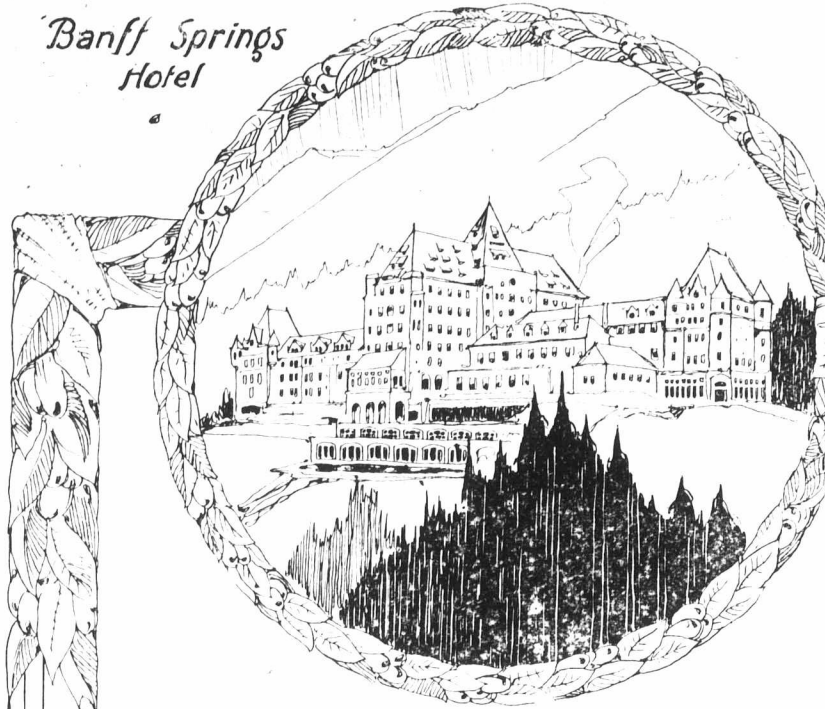
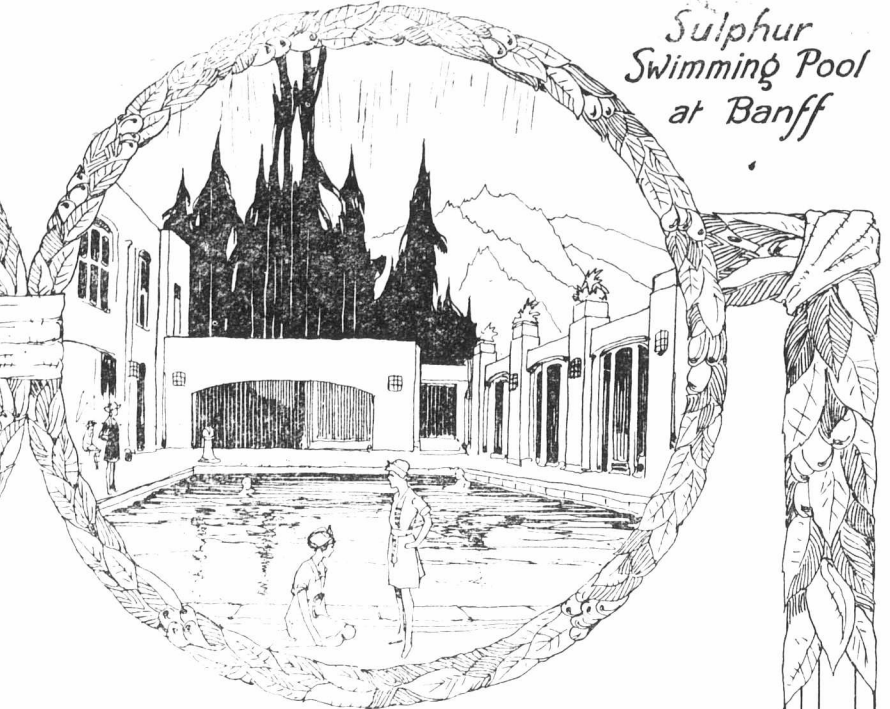
IN 1915 THE AVERAGE YIELD PER ACRE OF THESE FOUR CROPS WAS:

Wheat 29.20 bushels,

Oats 53.23 bushels,

Barley 36.71 bushels,

Flax 13.18 bushels

Banff Springs
HotelSulphur
Swimming Pool
at Banff

SWITZERLAND is the typical instance of a country which has made a profitable industry out of its tourist traffic. So in the Rocky Mountains the Canadian Pacific Railway, through its enterprise in building mountain hotels, has found an asset of steadily increasing value.

The tourist crop of the mountains is becoming just as valuable to Canada as the wheat crop of the Prairies. The vast majority of these tourists are visitors from foreign countries who bring wealth into the country.

No less than 74,201 travellers registered at these hotels in 1915, the capacity of which is being increased each year. Banff Springs Hotel has kitchen capacity for six hundred

meals at one sitting, and the Chateau Lake Louise during the height of the season had between six and seven hundred overnight guests each day.

So far from confining itself to operating trains and hotels, the Canadian Pacific Railway has co-operated with the Government in building trails, and even an automobile road from Banff over the Vermillion Pass. Its activities are such that this immense area is coming to be generally known as the Canadian Pacific Rockies.

It has been the policy of the Canadian Pacific Railway to maintain a high standard of architecture and interior decoration in its hotels, the influence of which has been pronounced throughout the whole of Canada.

INFORMATION AS TO TOURS OVER THE CANADIAN PACIFIC RAILWAY WILL BE GLADLY GIVEN ON APPLICATION

W. H. SNELL,
General Passenger Agent,
Canadian Pacific Railway,
MONTREAL.

C. E. E. USSHER,
Passenger Traffic Manager,
Canadian Pacific Railway,
MONTREAL.



Chateau Lake Louise



Bassano Dam & Irrigation System near Calgary

Until the Canadian Pacific Railway undertook its three million irrigation project in Alberta, Calgary was a small rancher's town. But today it is the largest city in that prosperous province—the busy trading centre of an immense stockraising and mixed farming district.

It is the chief supply station of large mining areas in both Alberta and British Columbia, with natural gas and cheap electric power to attract the manufacturer.

From the roof garden of the Palliser one sees the Rockies 'round which blows the warm Chinook.

The Canadian Pacific has invested over \$15,000,000 on this irrigation project which has 1,600 miles of canals and ditches in its

Western section and will have 2,000 miles in its Eastern.

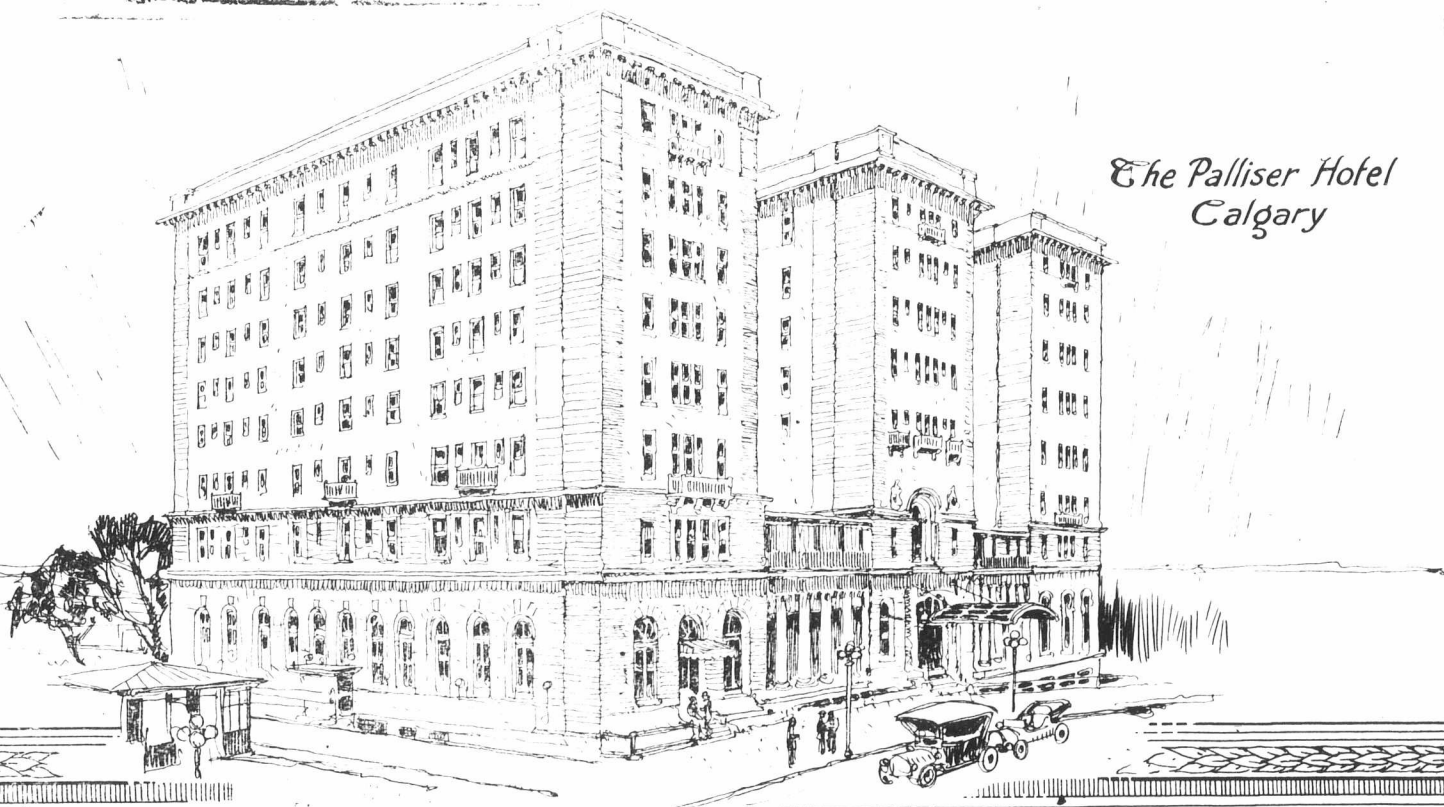
The immense dam at Bassano, 7,000 feet in length, and the giant aqueduct at Brooks, are the greatest engineering structures of their kind on the North American continent. Land in the neighborhood which a few years ago was used only for ranging cattle, is now closely settled with good farmers.

Near Calgary are located the large Ogden shops for the repair of rolling stock of the Canadian Pacific.

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MONTREAL.



*The Palliser Hotel
Calgary*

WESTERN CANADA

MANITOBA

SASKATCHEWAN

ALBERTA

The Land of Sunshine and Free Farms.

BRITISH COLUMBIA—A Province of Vast Area and Vaster Possibilities.

The Prairie Provinces, with a surveyed area of 200,000,000 acres, scarcely one-tenth of which is under crop, produced in 1915 nearly 400,000,000 bushels of wheat—an average per acre of 30½ bushels; an enormous crop of oats, with barley, flax and other cereals brought the grain revenue to over half a billion dollars. Western Canada in world-wide competition holds first place in quality of wheat and oats. Mixed farming is growing in popularity, the large crops of such fodder as hay, corn, alfalfa and roots favouring stock raising and dairying. Butter and cheese worth millions are being marketed yearly. The Foothills of the Rockies are famed for ranches. Cattle, horses and sheep graze throughout the year and Western beef is unexcelled the world over. Timber, in-



BEEF UNEXCELLED IN QUALITY IS PRODUCED IN WESTERN CANADA.



POULTRY SOMETIMES PAYS THE GROCERY BILL.



A PIG RANCH IN WESTERN CANADA.

spruce, Douglas fir and larch is to be found in these Provinces. In Alberta there are 12,000 square miles of bituminous and anthracite coal beds. Situated at the head of the Great Lakes, with an all water way to the Atlantic Ports, traversed by three lines of transcontinental railway with their network of branches, this part of the Dominion is assured markets and high prices. The loneliness of the Prairie has given way to settled conditions. The rural telephone is everywhere in evidence; free rural mail delivery has been inaugurated. School districts are being organized in all directions and the establishment of colleges and universities of the highest modern standard places these Provinces in the front rank from an education view point.


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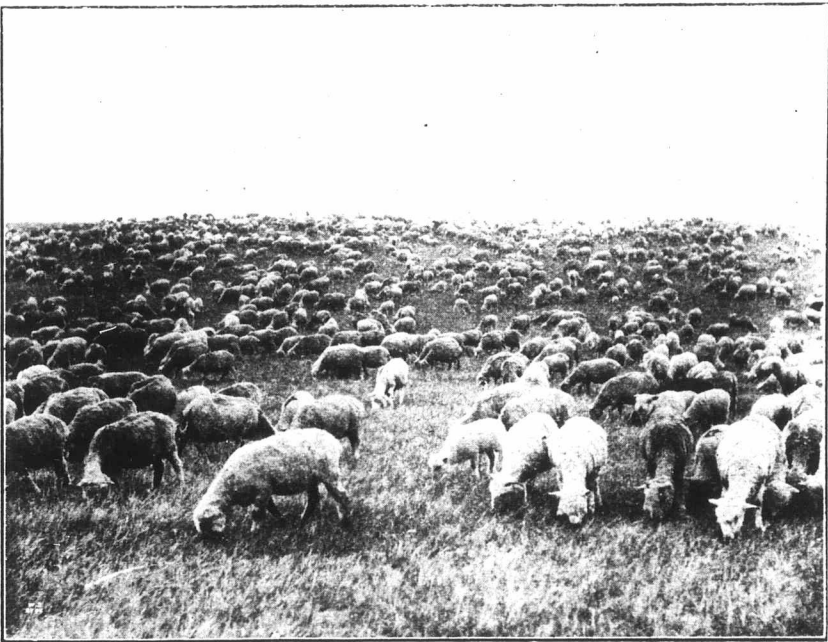
British Columbia, washed by the waters of the Pacific, looking out towards the Orient with its teeming millions, where are markets for her products, and having easy access to the Atlantic by means of the Panama Canal, occupies an advantageous position as a Province and as a member of the great Canadian Federation. In her scenic grandeur, her inexhaustible natural resources, with her climate one of her greatest assets, this Province stands unrivalled. Her rich agricultural areas favour mixed farming and stock raising and her vast fruit lands are famed for their product although the industry is only in its infancy. \$12,000,000 are realized annually from her fisheries, besides supplying the extensive canning industries of the Province. Second only to Ontario in mineral pro-



CULTIVATING ALFALFA IN WESTERN CANADA.



AN EVIDENCE OF PROSPERITY IN WESTERN CANADA.



A SHEEP RANCH IN WESTERN CANADA.

duction. British Columbia produces gold, silver, copper, lead, coal and iron to an annual extent of \$24,000,000. Her forests cover immense areas, the product of which large quantities are exported including the giant cedar, pine, oak, larch, maple and spruce. Nowhere is there a wider or better field for the sportman.

Lying to the north of British Columbia is the Yukon, which for the past fifteen years has been famous for its gold, the yearly output still amounting to \$5,000,000.

For further information apply to:

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 Ottawa, Ont.

The Journal of Commerce

Q The Journal of Commerce is one of the oldest commercial journals in Canada. As its name implies, it gives prominence to commercial information, but it by no means confines itself to strictly commercial questions. It makes a specialty of information concerning the production, distribution and marketing of Canadian commodities. It is recognized as a leading authority on commodity markets. It gives accurate, timely and impartial weekly reviews of events in the industrial, commercial and financial world. In its editorial and other columns, it discusses all the interesting problems of the day. It deals with politics, not party politics, but the politics which should and do interest men and women of all parties; the trend of events at home, throughout the Empire and in the neighboring Republic—such notes and comments as are helpful to the reader who desires to keep himself informed on current events. All questions which touch the development of Canada's resources, or that have a bearing on the promotion of the moral or material welfare of the Dominion, fall within the field of the contributors to the Journal's columns, who include many of the ablest thinkers and writers of the day.

Q The Journal of Commerce is a forward-looking magazine of Canadian questions, aiming to deal with the affairs of today and tomorrow. Its topics are those in which the new generation is interested, the discussion of which is calculated to give a better understanding of Canadian life.

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The Journal of Commerce

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MONTREAL, TUESDAY, NOV. 21, 1916

Western Canada Number

WE ISSUE to-day the third of the four "Trade Revival and Expansion" numbers of The Journal of Commerce, this one being devoted particularly to the affairs of what is so often well described as "Our Great West." The rapid growth of the four Provinces lying West of the Great Lakes—Manitoba, Saskatchewan, Alberta and British Columbia—has been the most notable feature of Canadian development. Into regions which but a few years ago were regarded as almost beyond the confines of civilization, there has rolled a tide of settlers who have created villages, towns and cities which, in population, commerce, religious and educational institutions, and all that makes for enlightened advancement, may well vie with the older communities of the East; and underlying these things, forming the foundation on which all are built, is a vast acreage of fruitful land from which are drawn food products that to-day play a large part in the great work of feeding the Empire in this time of need. Perhaps it was but natural that after a period of remarkable development there should be a time of reaction. The West has passed through its period of depression and is now recovering. The abounding crop of 1915 made a marked change in conditions. The crop of the present year, in some sections, has fallen short of that of 1915, but on the whole the out-turn of the farmers' operations for the year, owing to the high prices prevailing, is likely to be good and to afford basis for confidence in the continued successful development of the Western country. Just at what stage of events after the war the flood of immigration will be renewed may be a matter of debate. But none can doubt that the rich lands of the Canadian West will prove a magnet to again draw to them hundreds of thousands of homeseekers from all parts of the world. Among those who know the West best there is an abiding faith

in its future — a conviction that the day will come, probably within the life of men who are not very young, when there will be more people West of the Lakes than in the older country of Eastern Canada. That this growth may take place along sound lines, marked by the best of relations between West and East, and by unswerving devotion to the interests of the British Empire, must be the wish of all Canadians.

Quebec's Budget

IT WAS a pleasant story that Hon. Walter Mitchell, Treasurer of Quebec, had to tell in the delivery of his budget speech on Thursday. True, the expenditure of the last fiscal year was \$8,304,957, or \$1,131,730 more than the estimate of the Treasurer; but on the other hand the revenue, which he had estimated at \$8,445,033, actually amounted to \$9,647,982, an excess of \$1,202,948. If the expenditure had largely exceeded the estimate without corresponding increase of revenue, critics might be inclined to chide the Treasurer; but where the increase on both sides of the account so nicely balances, there will be little disposition to find fault. For the year now current the Treasurer estimates that the receipts and ordinary expenditures will about balance, and for the year 1917-18 he looks for a small surplus. Of course, ordinary expenditure does not include special services for which provision has to be made by loans. The expenditure on the Good Roads Movement has been large and it is evident that the Government of Sir Lomer Gouin contemplate much further work among the same lines. The need of good roads is so generally acknowledged now that there will be a disposition on the part of the public to look with approval upon careful expenditure of money on that class of service. A point to be remembered, however, in the consideration of such questions, is that in a country having the climatic conditions of Canada anything like permanent roads is hardly possible, except, perhaps, through the use of deep cement concrete, which is too expensive to be undertaken in a large way. The Treasurer, with pardonable satisfaction, compares the loan operations of Quebec with those of several other Provinces and also with those of the Dominion and the Anglo-French loan, and shows that the Quebec issue of five per cent securities produced the very favorable price of 99.20 per cent., figures which fully justify the Treasurer's claim that the credit of his Province stands high.

If Quebec is sometimes regarded as a slow Province, its public men can justly claim that it is sure and sound. When the wave of depression swept over a large part of Canada in 1913-14 there was no Province that stood up better than Quebec. The industry and thrift of the people formed a basis on which pros-

perous trade was carried on at a time when in some sections of our country there was a marked falling away of activity. That prosperity has continued through the war years, and as present to-day. That the future has many economic problems that will need solution we all know. There is no part of the Dominion which is in a better position to face these problems with courage and confidence than the Province of Quebec. The people of the Province can be heartily congratulated on the excellent state of Provincial financial affairs as disclosed in Hon. Mr. Mitchell's very interesting speech.

Sir Sam Hughes' Retirement

THE most remarkable thing in connection with the retirement of Sir Sam Hughes from the office of Minister of Militia in the Borden Cabinet is that it did not come earlier. The correspondence since published was not necessary to show that the relations between the Minister and his colleagues were such as could not continue indefinitely. Many things that had occurred in recent months gave evidence of friction which must ultimately cause a break.

Sir Sam Hughes, at the initial stages of his service in the Cabinet, made the mistake of regarding the office of Minister of Militia as a military one. It is not. The incumbents of the office have seldom been men of any considerable military knowledge. There is no more reason why the Minister of Militia shall be a military man than that the Minister of Railways or the Minister of Public Works shall be a civil engineer. True, much of the work of all three departments is of a technical character, requiring knowledge that comes from special training. But under our system of government technical advisers are employed to assist the Ministers in dealing with such matters. Possibly it would be an advantage if the Minister of Railways could always be an experienced railway engineer. The danger, however, would be that if he gave close attention to the engineering side of the departmental work he would have to neglect other parts of it more in need of his time and talents. In all these cases it is well for the Ministers to leave the technical part of the work as far as possible to the technical officers employed for that service, give their chief attention to the business side, and keep in touch with their colleagues who are responsible for them, and with Parliament, to which all are responsible. Sir Sam Hughes seems to have never had this conception of duty. While the appearance of a British Secretary for War in a military uniform was a rarity—as, for example, the very exceptional case of Lord Kitchener, who was a soldier and nothing else—Sir Sam seemed to enjoy the uniform. The rank which he had

held as a Lieutenant-Colonel in the Canadian Militia was not enough for him. He promoted himself to the rank of a General. If Sir Sam had left all his military uniforms at home, made more use of the advice of the experienced military men at hand, and devoted himself more to the ordinary civil duties of the department, he would have been a more successful Minister of Militia. It is a pity that he was so entirely possessed by the military spirit, an excellent thing in its proper place, but not the best thing for the carrying on of the affairs of civil government. The military officer easily persuades himself that his duty is to command, the duty of others to obey. That is one reason why military men so often come to grief when charged with duties which require submission to the paramount civil authority. To make matters worse, Sir Sam had an unhappy willingness to make speeches and grant press interviews, which afforded too much scope for the manifestation of indiscretion.

These are some of the unfavorable sides of Sir Sam Hughes' character as a Minister. But there is another side that must not be forgotten at the moment of his retirement. Let it be remembered to his credit that his industry, energy and enthusiasm are qualities which, especially in the early days of the war, proved of great service in the organization of the Canadian forces for overseas service. There will, we are sure, be in the public mind a generous recognition of his good work in this respect.

Lieutenant Governors

TELEGRAMS from Halifax report that, upon the death of Lieutenant-Governor McKeen, the Chief Justice of the Province was appointed administrator of the Government of the Province. This clearly is a mistake. An administrator is appointed to act in the place of a Lieutenant-Governor who is absent from his post. Where there is no Governor there can be no administrator. The constitution of the Dominion is defective in that it makes no provision for a temporary appointment in the event of a Lieutenant-Governor's death. The business of the Provincial Government comes to a standstill by the death of the chief official. Nothing requiring governmental action can be done until a new Lieutenant-Governor is appointed, and when appointed he holds office for five years. Practically speaking he is a fixture for that period. He can be removed only for some special cause, which must be communicated to Parliament immediately after the opening of the next session. In the somewhat famous case of the removal of Lieutenant-Governor Letellier, of Quebec, the reason communicated to Parliament was that "his usefulness was gone." When Lieutenant-Governor Joseph Howe, of Nova Scotia, died, much difficulty occurred through the delay of appointment of his successor. One of the duties assigned to the Lieutenant-Governor in that Province is the signing of marriage licenses. These are signed in large numbers and distributed to the issuers of the licenses throughout the Province. The issuer countersigns each license at the time of its delivery to one of the parties to be married, who in turn hands it to the clergyman who is asked to perform the ceremony. After Lieutenant-Governor Howe's death, and during the interregnum, many of these licenses signed by Mr. Howe were issued by the officials, who assumed that they were valid, and many marriages took place on the faith of these documents. Then the discovery was made that from the moment of Governor Howe's death these licenses became invalid and all the marriages performed under their

authority were illegal, a revelation which, as may easily be imagined, created consternation in many quarters. At the next session of the Legislature an Act was passed legalizing these marriages and providing that in the future a license signed by the Lieutenant-Governor and sent to the local office should continue to be good after his death.

There is much inconvenience in the law respecting the filling of a vacancy in the office of Lieutenant-Governor. Where the vacancy can be anticipated timely arrangements for the appointment of a new Lieutenant-Governor can be made. But when the vacancy is caused by death an embarrassing situation is produced. The public business requires that the office be filled immediately. It is not always convenient to make a new appointment at a day's notice. Authority for the making of a temporary appointment is much to be desired. This, however, would require an amendment to the British North America Act. Perhaps the matter is not important enough, since the trouble does not occur often, to warrant an application to the Imperial Parliament for such an amendment. But at some time when other matters necessitate the making of such application to the Imperial Parliament, provision might well be included to meet such cases as these to which we have referred.

Trade With France

THE statement in Senator Beaubien's letter to the Minister of Trade and Commerce, that "Canadian products are practically unknown in France," can hardly be accepted literally. For many years Canada has had agents in France—general agents and agents specially devoted to extension of trade. Their efforts were supplemented a few years ago by the completion of a comprehensive treaty designed to remove in some degree tariff barriers which are always impediments to trade. These agents, including the present vigilant Canadian Commissioner at Paris, Mr. Philippe Roy, have constantly endeavored to make the products of Canada known in every French quarter in which there seemed to be an opportunity for business. There may be some ground for Mr. Beaubien's statement that "no determined effort was ever made by our manufacturers and producers to obtain their fair share of the French market," though this will probably be disputed by some of those whose alleged neglect is referred to. The extension of trade between two countries, both of which have considerable tariff walls around them, is not so easy a matter as it may seem to be to men who have not given the subject close attention. However, whether the efforts of the past have or have not been strong is a question that need not interfere with any present movement. Unquestionably the conditions arising from the war will make for still closer relations between France and Canada, and every movement calculated to enlarge and strengthen these relations deserves hearty commendation and support.

Could not Deliver the Goods

THERE is one aspect of the recent Presidential contest in the United States which is worthy of special notice. It is the failure of certain labor leaders to deliver the votes of their followers to a particular candidate. There are occasions when the attitude of organized labor towards public questions leaves room for criticism. In the present instance what has occurred is much to labor's credit. In the crisis respecting the threatened

strike of the railway trainmen of the United States a few weeks ago, President Wilson went far to support the workmen in their claims. Under his influence Congress hurriedly passed the Adamson Bill, which gave the men their eight hour law. For this he was criticized by the Republican speakers, including Mr. Hughes himself. That some credit would be given to Mr. Wilson by the labor organizations for this measure was to be expected. Perhaps if the workmen everywhere had been left to award the credit themselves he would have profited more by their good-will. But Mr. Samuel Gompers, the head of the largest labor organization, moved undoubtedly by a desire to aid the President, issued a manifesto in which he claimed that workingmen were bound to give him their votes. That the men to whom this appeal was addressed did not respond to it seems to be evident from the returns from the great manufacturing States of New York, Massachusetts, Pennsylvania, New Jersey and Illinois. In all these States organized labor is so powerful that if it had taken the desired action it could have given most if not all the States to the Democrats. Yet all these States were carried by Mr. Hughes. Mr. Wilson undoubtedly lost the support of many voters by what they regarded as his too great concessions to the demands of the trainmen. That he profited largely from organized labor support is more than doubtful. The returns seem to show that the workmen of the country, like other citizens, divided their support, and that they cast their votes according to their judgment of the general political issues of the day, rather than by reference to the special appeal that had been made to them. Indeed, it seems quite probable that, instead of responding to Mr. Gompers' appeal, they resented it as the assumption on the part of the leaders of a right to control the labor vote.

Moderation

OUR view that the bitterness of Mr. Roosevelt's speeches in the latter part of the recent Presidential campaign was not likely to help Mr. Hughes is in accord with opinions that are finding expression in the American press, now that the election is over. The Republican Boston Commerejal, which thinks that the party managers of both sides bungled their business, has this to say concerning Mr. Roosevelt's speeches:

"David Starr Jordan has been telling the west that the east wants war. To support this he cites the intemperate utterances of Theodore Roosevelt and it is safe to say that a great many who have heretofore been Republican in their party preference were repelled by many of the things which Roosevelt has said on the stump and which Mr. Hughes has not disclaimed."

Mr. Roosevelt could not resist the temptation to say smart and sharp things, which may please the intense partisan and win applause for a moment, but are not the best form of appeal to the voter who is in doubt as to how he will cast his ballot.

Newspaper publishers everywhere are feeling keenly the large increase in the cost of printing paper. The price of the London Times has been increased by half a penny per copy. This does not make the Times cost 3½d. as stated by a Montreal contemporary. The Times did cost three pence per copy for many years, but a year or two ago, under new management, the Times joined the penny press. The price since has been a penny and it will now be 1½d.

Henry Ford's Business Ideas

Understand Human Nature—Keep Thinking.

Henry Ford writes in part in System for November: There is one principle a man must follow if he wishes to succeed, and that is to understand human nature. If there is any secret of success it lies in ability to get another person's point of view.

It makes no difference if a man employs ten men or ten thousand, success of his business will be in direct proportion to his understanding of human nature. This faculty is the business man's greatest asset.

It is easy to say: "Understand human nature," but it takes a lot of hard and constant thinking.

An employer must not make the mistake of thinking of people working for him as units or wage earners or as in any way different from himself. If he is going to get their best work, he has got to realize that he has human beings working for him who have the same ambitions and desires that he has.

When an employer begins to see his employees in this light, he begins instinctively to understand that success of his workmen and success of his business are tied together, and will begin to wonder how his men can best succeed in his business.

He will discover that one man can do one thing better than another, or one group, and they will be shifted to that particular work. Notice what is happening in that business organization: The employer is specializing, getting the right people in the right place where they can work to best advantage not only to themselves but to the whole business. Don't ever forget that welfare of any business and welfare of individual workers are as closely related as cause and effect.

A man who works with enthusiasm and interest is going to earn a lot more for his employer than the man who is indifferent and discouraged, if only the employer will give him a chance.

A man may have a lot of fine talk about having interests of his workmen at heart, but if it is not there in fact and deed, his men will know it and he will not get their support.

It is the easiest thing in the world to inspire this loyalty, but it's not to be done by any trick. It's simply a matter of honest and sincere understanding of the workman's interests, a recognition of his ambitions as a human being. If your men feel that is your attitude they will do their best work every hour.

The Spirit of Service.

The trouble with many of us in the business world is that we are thinking hardest of all about the dollars we want to make. That is the wrong idea at the start.

If people would go into business with idea that they are going to serve the public and their business as well as themselves, they would be assured of success from the start. The money would come in without any worry.

The business man who wants to succeed must make the public serve him in serving itself. He must render the public a genuine service in selling it his products. The public is quick to get a sense of confidence, but just as quick to lose it when there is cause. Just let a man take advantage of the public for his own selfish interest and see!

The great chance for success lies in finding out what the public needs, and right here comes in ability to understand human nature. The next step is to make that article the very best you can and sell it as cheap as you can, no matter if it be shoes or automobiles. Actually render a service by selling that article. The man who has this idea of service will never need worry about profits. The money is bound to come. This idea of service is the biggest guarantee of success any man can have.

One of the first things a man has to learn is how little he can do by himself. He begins to look around for people to do what he can't. He begins to study people, he begins to see every one has something good in him, and begins to co-operate with the good qualities in people about him.

I believe in this idea of co-operation in business, and I believe in big business organization. The bigger the business, the bigger the chance to harness up a lot of people with special ability. In this idea of specialization lies the chance of perfection, and perfection means success.

The more you think about anything, the more you understand it; you get special information about it, and the more special information you have, the

THE HORSE OWNERS' AND THE ROADWAY IN THE CITY OF TORONTO.

(From a Toronto Correspondent).

A meeting of the horse owners of the city of Toronto, was held in the Assembly Hall, 2 College Street, on Monday evening, October 30th. The hall was crowded to full capacity, and unusual interest was manifested in the proceedings. The meeting which was held under the joint auspices of the Toronto Humane Society and The Retail Merchants' Association, Toronto Branch, was called to order by Mr. D. B. Jacques, President of the Coal Section of Toronto Branch; Mr. R. C. Craven, Secretary Toronto Humane Society, acted as Secretary; Seated on the platform were Messrs Wm. Britnell, J. Lucas, T. Hardy and Dr. Chambers.

The Secretary, in well chosen words, explained the cause leading to the call of the meeting, i.e., the necessity of impressing on the City Council the imperative demand for improved conditions in our roadway construction, so that our horses may be preserved.

Mr. Britnell, who is a large horse owner, and has had some trying experiences with our streets particularly in wet and slippery periods, maintained that the commissioners in charge of roadway construction gave but little attention to their work from the view point of horse owners but rather considered the benefit of motorists. That some of the gradients in our city are worse than mountain passes is too true, and in many instances teamsters are obliged to take roundabout ways of reaching their destinations.

It was finally decided to appoint a large number of representative horse owners as a committee to decide on some concrete form of procedure.

This movement is a step in the right direction and had its inception in the Coal Section, which instructed its Secretary to have the Toronto Humane Society take part in a campaign having for its object the securing of better roadway conditions.

The Humane Society gladly co-operated and both Associations are working with perfect accord.

better you are equipped to meet competition. It's the man who is the ablest specialist in his line who wins the biggest success.

Every one of us can do some one thing very well, but none can do a lot of things well at the same time. Perhaps he will do them as well as other people, but that idea of doing things as well as other people has no place in business. We have got to do things better than other people if we are going to win out.

I am sure it would pay a firm to do one single thing, say make one particular size in boots. If one factory devoted its entire energy to making one size in boots, millions and millions of pairs exactly alike, think of the saving in time and energy! What was saved in time and energy could be put into perfecting that particular boot, to be the best and cheapest in the world.

Thinking Counts Most.

I can't say too often that it is thinking that counts in business. A man who wants to get ahead must be thinking about everything that comes this way: about people he employs, people he works with, people to whom he sells.

Everything in this world is tied up in one way or another with everything else, and a man can get a million side lights on his own specialty if always awake to its relationship with the rest of the world. Everything in successful business is evolved by thinking, everything starts with a thought; and this habit of analysis, this ability to get under the surface, to get at vital essentials, gives a man a tremendous advantage over competitors who do not do likewise.

There is not one detail in business to-day but can be improved by thinking. We have not reached perfection in any line. Improvement means increased success, and improvement is result of thinking. The great trouble in business to-day is that most people are so busy doing a variety of things that they have not time to get a real grip on any one thing.

Weeds are a very good illustration. For centuries people have thought weeds were perfectly useless. Farmers have spent time and money pulling them up, burning them up, anything to get rid of them.

Now comes a man who has been thinking about weeds analyzing and experimenting, and what does he find? That weeds are the best fertilizer, and that instead of spending money to enrich his fields, all the farmer has to do is to plough the weeds under!

BRITISH GOVERNMENT RESTRICTIONS ON FLOUR IMPORTS.

New Measures Not Likely to Have Radical Effect on Canadian Markets.

During the past few days there has been considerable discussion in milling circles of the speech dealing with the price of food delivered by the Hon. Walter Runciman in the House of Commons on November 15. Referring to the question of flour Mr. Runciman stated that pure white flour from which the best qualities are extracted would not be allowed to be milled in the United Kingdom in the future, and steps would be taken for the control of imported flour. Lacking further details as to the policy to be adopted by the British Government in this matter any comment on the situation is but guess work, but the fact remains that if the milling capacity of the United Kingdom has not hitherto been able to supply the needs of the population no Government action can make it so in a week, and it will be necessary to depend on imported flour to much the same extent as in the past.

During the last two years the British market has been supplied in some measure by Canadian and American millers, but this trade has been seriously hampered by the discrepancy between Atlantic freight rates on wheat and flour. In the fiscal year 1916 Canada exported flour to the value of \$35,767,044 as compared with \$24,610,946 in 1915, and \$20,581,079 in 1914. The enormous exports since the war, however, are chiefly composed of flour sold f. o. b. at the seaboard to be transported to France in Government ships for the use of the British and French armies. It is quite safe to state that shipments of Canadian flour for this purpose will tend to increase rather than decrease with the progress of the war.

On the other hand, to consider the British market, the situation depends on the quality of flour specified by the Government. If the grade of flour determined upon is so low that the remaining millfeed is so poor that it is an unmarketable product Canadian mills will hardly be willing to seek this line of export in a wholesale way. There is a heavy demand for shorts, middlings and bran in Canada owing to the constant development of our butter and cheese industry to meet the requirements of the British Government. A reduction in the quality of flour milled will decrease the output of shorts and middlings leaving a surplus of bran.

Some time ago similar measures were adopted by the French Government when the quality of flour to be sold in that market was restricted to a grade composed of 77 per cent of the wheat. Under the Canadian system of wheat grading it was impossible to fill the French flour orders on this basis, but the difficulty was obviated by matching the required samples of flour from by blending lower grades with feeds. It is possible that some such method will be reported to in order to meet the demands of the British home market. In any case the amount of flour shipped direct to Great Britain to-day is not sufficient to influence the Canadian market to any great extent, and in any case the price of flour is bound to follow the price of wheat.

DECREASED SEEDING OF FALL WHEAT

Fall Ploughing Equal to 51 Per Cent of Estimated Acreage.

A bulletin just issued by the Census and Statistics Office reports on the acreage and condition at October 31st of fall wheat sown for 1917 and the progress of fall ploughing. Owing to the dry condition of the soil in Ontario difficulties were experienced in the ploughing and seeding of fall wheat. By October 31st only 656,500 acres were sown, as compared with 820,600 acres in 1915, a decrease of 164,100 acres, or 20 per cent. In Alberta also there is a decrease of 36,500 acres, or 14 per cent, viz., from 260,500 acres to 224,000 acres. For all Canada the area estimated to be sown to fall wheat is 899,300 acres, as compared with 1,100,800 acres, a decrease of 201,500 acres, or 18 per cent. The condition of fall wheat on October 31st for all Canada is 76 per cent. of the standard as compared with 88 per cent. last year and 97 per cent. in 1914.

Of the total land in Canada intended for next year's crops 51 per cent. is estimated to have been ploughed by October 31st, the percentage proportions in the west being 47 for Manitoba, 28 for Saskatchewan and 21 for Alberta.

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ESTABLISHED 1867

PAID UP CAPITAL - \$15,000,000 RESERVE FUND - - \$13,500,000

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Connected with each Canadian branch, Yukon Territory excepted, and interest allowed at current rates.

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THOSE WHO, FROM TIME TO TIME, HAVE FUNDS REQUIRING INVESTMENT, MAY PURCHASE AT PAR

DOMINION OF CANADA DEBENTURE STOCK

IN SUMS OF \$500 OR ANY MULTIPLE THEREOF.

Principal repayable 1st October, 1919.

Interest payable half-yearly, 1st April and 1st October by cheque (free of exchange at any chartered Bank in Canada) at the rate of five per cent per annum from the date of purchase.

Holders of this stock will have the privilege of surrendering at par and accrued interest, as the equivalent of cash, in payment of any allotment made under any future war loan issue in Canada other than an issue of Treasury Bills or other like short date security.

Proceeds of this stock are for war purposes only.

A commission of one-quarter of one per cent will be allowed to recognized bond and stock brokers on allotments made in respect of applications for this stock which bear their stamp.

For application forms apply to the Deputy Minister of Finance, Ottawa.

DEPARTMENT OF FINANCE, OTTAWA,
OCTOBER 7th, 1916.

The Contribution of Canadian Banks Toward Western Development

Increase of Population, Wealth, Business Turnover, and General Development Have Found Reflection in Branch Bank Extension.

By H. M. P. ECKARDT.

One of the most interesting and creditable chapters of Canadian banking history is that relating to the development of the now extensive system of branches operating in the vast territory lying west of Lake Superior. A halo of romance surrounds the operations of the first-established branches in their pioneer days. Even yet the head offices of those banks require to give their attention, on occasions, to matters representing legacies of Manitoba's famous land boom, which collapsed over thirty years ago. In 1907 the Manitoba Free Press published a list of the banks having branches in Winnipeg, giving also in each case the date of the bank's entry into the city, and the number of branches in the West operated by the bank in 1900 and 1907 respectively. It will be interesting to bring the table up to date—putting in the banks which entered the city since 1906 and giving for each institution the total number of branches operated in the four western provinces in 1916:

Bank	Opened in Winnipeg	Branches in West.		
		1900	1907	1916
Merchants	1873	9	40	89
Montreal	1876	10	15	53
Imperial	1881	10	27	44
Ottawa	1882	5	13	19
Union	1882	26	86	208
British	1886	8	25	53
Molson	1891	6	5	9
Hochelaga	1892	1	4	8
Commerce	1893	7	84	177
Hamilton	1896	8	43	63
Dominion	1897	2	13	23
Nova Scotia	1899	1	5	14
(a) Eastern Townships	1903	2	6	..
Toronto	1905	2	11	37
(b) Traders	1905	..	8	..
Northern-Crown	1905	..	47	33
Royal	1906	..	23	97
Home	1906	..	2	13
Standard	1909	..	..	20
Quebec	1910	..	..	20
Sterling	1910	..	..	6
Other Banks	..	34	15	14
Total	..	131	472	1,050

(a)—Absorbed by Commerce.
(b)—Absorbed by Royal.

NOTE.—The 14 branches under the heading "other banks", in 1916, were owned by Weyburn Security Bank the operations of which are confined to the Province of Saskatchewan.

The above table illustrates a most remarkable development. In 1916 the number of western branches was eight times as large as in 1900. The branches, appearing in the table for 1916, are as published by the Monetary Times in the Annual Review Number, January, 1916. Since January there has been a slight reduction in number of western branch offices—the total on September 30th, 1916, as given in Houston's Bank Directory, being 1,038. Increase of population, wealth, business turnover, and general development of the several provinces of Western Canada, in a measure, have found reflection in the branch bank extension movement. The banks have always been keen to go wherever good business was to be found. Following is a table showing the progress of each of the four western provinces since 1902:

Provinces.	Bank Branches.			
	1902	1908	1912	1916
Manitoba	79	162	204	201
Saskatchewan	..	145	375	402
Alberta	..	106	255	241
N. W. Territories	79	..	..	..
British Columbia	55	104	237	194
Total	219	517	1,071	1,038

It should be remembered that part of the decrease in 1916, as compared with 1912, was due to failure of the Bank of Vancouver, which institution had 13 branches in the Province of British Columbia. Another noteworthy point is that within the last three years both Alberta and British Columbia heavily increased the rate of provincial taxation on branch

banks. This increase, combined with the depression experienced by the whole Dominion in 1913 and 1914, forced the banks to take steps to weed out unprofitable branches. Saskatchewan on the other hand did not materially increase its rate of taxation on branches. It may be merely a coincidence, but the fact remains that bank branches there continue to show increases while Alberta and British Columbia show small decreases.

City or Town	Incorporated	—Population—		Assessment (Thousands)		Bank Branches
		1900	1916	1900	1916	
Winnipeg	1873	42,534	162,999	\$25,077	\$287,365	53
Calgary	1882	6,000	56,302	2,207	114,263	22
Edmonton	1892	2,631	53,794	1,244	190,646	23
Brandon	1881	5,848	15,225	2,387	15,571	10
Moose Jaw	1903	1,200	16,889	..	43,126	11
Regina	1884	3,400	26,105	944	73,702	16
St. Boniface	1883	1,537	11,022	705	22,544	2
Portage la Prairie	1880	3,844	5,860	2,101	5,057	6
Saskatoon	1906	50	21,054	..	48,207	15
Prince Albert	1886	2,000	6,436	988	29,195	9
Lethbridge	1890	2,500	9,437	989	17,733	8
Medicine Hat	1898	2,000	9,269	676	21,101	8
Strathcona	1907	1,100	..	840	..	..

As regards rapid development these figures speak for themselves. In connection with the subject of banking development, there is one point to which attention might properly be drawn. During all this period of tremendous growth the west has lost practically nothing through bank failures. It is remarkable that since the Commercial Bank of Manitoba failed in 1893—twenty-three years ago—if we omit the case of the Bank of Vancouver, there has not been a single failure of a chartered bank having a branch in Western Canada. Since 1893, the Banque du Peuple, Ville Marie, Yarmouth, Ontario, Sovereign, St. Jean, St. Hyacinthe, Farmers, have all failed, but not one of them had a branch west of Lake Superior at time of suspension. When honest and careful con-

With reference to the great activity displayed by the banks in supplying facilities to Western Canada, it is worth while to remember that the privilege of free note issues has been one of the important factors. The untaxed and uncovered bank notes constituted the cheapest possible form of till money and permitted a more economical working of the country branches. But for this fact there would not have been so many branches pushed into small places. If they had no issue privileges worth while, and if it were necessary to stock every branch till with actual cash, the tendency would have been to confine the new branches more to cities and large towns where they would find a profit regardless.

The special number of the Manitoba Free Press in 1907, above referred to, also contained a list of the principal cities and towns in the prairie provinces, with date of incorporation in each case and statistics of population, assessment, etc. Taking the cities and towns which in 1906 had a population of over 3,000, they stand as follows today in regard to population and banking offices:

consideration is given to this fact it becomes clear that the west owes much to the stability and strength of the banking institutions that have co-operated in developing western resources. The case of the Western and Northwestern states is vastly different. During the early stages of their growth, the wrecks of little local banks, especially during the periods of re-action after booms, were very numerous. Western Canada escaped this entirely. It may be said that apart from the local disturbance caused by the breakdown of the Bank of Vancouver two years ago, the Westerners, even at the smallest and most remote points, have not had their savings in jeopardy at all.

A Military Post Office

How the Great Army Post Office Handles the Huge Postal Problem.

Rev. F. C. Spurr, pastor of Regent's Park Baptist Church, London, has recently in a leading London journal described a military post office which has been built within the last year in Regent's Park, one of the great City's play-grounds, "This great wooden structure, covering an area of 150,000 sq. ft. sprang up as by magic. Within a few weeks it was commenced and completed. And today it is one of the important distributing centres of the parcels sent by loving friends and relatives to the men at the front. It will be still more important when another 50,000 sq. ft. have been added to it.

It is one of the most efficient pieces of home work done in connection with the war. The creation of a great army of men for foreign service has brought into existence a new and great postal problem. The correspondence going out from Britain and the Colonies to the men at the front is incredibly large. But this is a light problem compared with that of the parcels. They come in millions from the uttermost ends of the earth. From India and our Oriental possessions, from remote corners of Australia, New Zealand, Tasmania and South Africa, from every town, city, village and hamlet of Great Britain and Ireland. So great is the number of parcels passing through this war time Post Office that more than six hundred men, together with a certain number of girls find their entire time occupied in dealing with the problem. Day and night the work incessantly goes on. Upon an average two hundred thousand parcels are despatched daily.

The bags containing parcels from the ends of the earth and at home reach this distributing centre in Post office vans and War office lorries of which lat-

ter there are one hundred. The moment they are unloaded upon the large receiving platform they become Army mails, and from that time the military authorities assume control of them, for they alone know where the boys are to be found. To the civilian sorter the mysterious letters written across the face of the parcels would convey nothing. "B. E. F.", "E. E. F." or "A. E. F." may mean one of fifty places upon the Continent of Europe or in Asia or in Africa. Even to the military sorter the final destination of the parcels is unknown when at length the last process of sorting has been concluded and the sealed bags are ready for despatch, the mystery remains unsolved. All that the distributors know is that bags labelled with a certain color go to this station and that other bags labelled with another color go to that station. The bags all pass into the land of mystery and over their transit there rests an impenetrable veil which is not lifted until they pass into other hands across the water. It is a perfect system, spy proof, teachery proof. The responsible brains at either end know, the hands between simply work: the two combined accomplish the mission of the mail. The most perfect order prevails. Military discipline and order regulate everything. There are no loose ends. The pattern is complete.

The bags arriving from everywhere are immediately opened, their contents examined and classified. The vast area of the one-story Post Office is divided into clearly marked sections. The general locality is first of all indicated. Australia has one section, New Zealand another, Canada another. Here the mails for the Egyptian Expeditionary force

(Continued on page 29).

AMONG THE COMPANIES

HOWARD SMITH PAPER COMPANY.

The proposals for the purchase of the Edwin Crabtree Paper Mills and the issuance of a new issue of \$500,000 common stock to provide for extensions, were ratified by the shareholders of the Howard Smith Paper Company at a general meeting held last week. The new plans provide for the purchase of the properties and contracts of the Edward Crabtree Sons, Ltd., mill at Crabtree Mills, Que., for which the payment is to be made partly in cash and partly in common stock.

Shareholders are asked to subscribe for the common stock at 80. The amount outstanding at present is \$525,000, while the preferred amounts to \$475,000.

RUSSIAN LOCOMOTIVE ORDERS.

It is stated that the new Russian loan in New York will be used for the purchase of railroad equipment. A New York dispatch states that it is known that arrangements have been finished with equipment companies to supply these orders if proper facilities for financing can be agreed upon. The companies have even gone so far as to cover themselves for the steel which will be required in the manufacture of the locomotives and cars. An offer was made by the Russian Government to pay part of the purchase price in bonds, it is understood, but the locomotive companies preferred a different method. According to reports, the Russian Government wished to buy 1,000 locomotives, to be divided as follows: 400 to the American Locomotive Company, 100 to the Lima Company and 100 to the Canadian Company.

The average rate of duty collected on importations into Canada during the fiscal year ended March 31st last was 34.3 per cent.

DOMINION PARK COMPANY.

The annual statement of the Dominion Park Company for the year ended October 31st shows a surplus of \$22,307, compared with \$4,151 a year ago. Gross earnings amounted to \$150,982. Expenditures for repairs and replacements, insurance, general expense, operating and bond interest, totalled \$121,500. The sum of \$50,000 was subscribed to the second war loan out of cash on hand amounting to \$67,000.

The balance sheet shows total assets \$736,292, of which \$51,000 is set down as investments and \$42,369 cash on hand.

Officers and directors of the company were re-elected as follows: H. A. Dorsey, president; W. G. Ross, vice-president; D. McDonald, C. E. Duclos and Paul Gaibert.

SHAWINIGAN WATER & POWER CO.

A capacity demand, or more, on the power resources of the Shawinigan Water and Power Company to the end of 1917, was the gist of a statement handed out last week by J. E. Aldred, president of the company. The company has already been taking 25,000 horsepower from the Laurentide Power Company, and under a new agreement additional power will now be taken to meet the increasing demand. Mr. Aldred stated that new enterprises are coming along all the time. There has been considerable industrial expansion in the vicinity of Shawinigan Falls. Three Rivers and Quebec, drawn to those districts by the cheap power and other advantages offered.

PERSONAL.

Mr. D. B. Hanna, owing to pressure of business engagements has relinquished his directorship of the London and Canadian Loan and Agency Company, and Mr. W. C. Noxon of Toronto, has been elected director in his place.

NEW COMPANIES.

The Anglo-Canadian Factors, Limited, Montreal, \$10,000; Trudeau Carriage, Limited, Montreal, \$49,000; British Chemical Co., Ltd., Montreal, \$50,000; The Prudential Credit & Financial Bureau, Limited, Montreal, \$20,000; Premier Waterproof Clothing Co., Ltd., Montreal, \$50,000; The Crystal Skirt Co., Ltd., Montreal, \$45,000; Canadian Silk and Dye Works, Ltd., Montreal, \$250,000; Toronto Hockey & Amusement Co., Toronto, \$50,000; Musical Instruments, Limited, Toronto, \$40,000; The Beaver Board Trustee Co., Ltd., Toronto, \$50,000; Perth Shoe Co., Ltd., Perth, \$200,000; James O'Kelly, Limited, Renfrew, liquor dealers, \$49,000; Finnie & Murray, Limited, Winnipeg, \$300,000; Gold Seal, Limited, Vancouver, liquor dealers, \$40,000.

The following companies have received Provincial incorporation during the past week:

ONTARIO: Packard Fuse Co., St. Catharines, \$200,000; Ely, Limited, Toronto, \$40,000; The Bellbirk Porcupine Mines, Toronto, \$2,000,000; McKelvey & Birch, Limited, Kingston, \$50,000; The Dominion Thrasher Co., New Hamburg, \$40,000; Grain Products Co., Fort William, \$25,000; Lindsay Builders, Lindsay, \$40,000.

BRITISH COLUMBIA: Vancouver Dry Docks, Limited, Vancouver, \$100,000; Aldra Theatre Co., Ltd., Fernie, \$10,000; B. C. Glass Works, Limited, Victoria; Copper Queen Mining & Smelting Co., Ltd., Vancouver, \$1,000,000; Union Jack Motor Co., Ltd., Vancouver, \$10,000.

QUEBEC: Canada Realty Limited, Montreal, \$10,000; Lymburner Brass Works, Inc., Montreal, \$40,000; Reliance Investments Limited, Montreal, \$20,000.

NEW BRUNSWICK: Northern Motor & Garage Co., Ltd., Chatham, \$49,000; J. P. Whelan & Co., Ltd., Bathurst, \$9,000; The Colwell Fuel Co., Ltd., St. John, \$24,900; North America Antimony Smelting Co., Ltd., Lake George, \$2,000,000.

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There's no "Car Congestion" on the Water

You know how it is every fall on the railways. Car shortage and car congestion tie up your freight, and it's next to impossible to get prompt despatch.

It's like that now, but not on the water. We've got the ships, and we can carry your package freight for you promptly, cheaply, and satisfactorily.

There are still about Six Weeks of Open Navigation

And don't forget that our lines to Bermuda, the West Indies and South America run all the year round, and are just as well organized to give you complete satisfaction as our services on the St. Lawrence and the Great Lakes.

Canada Steamship Lines

Limited

AMONG THE COMPANIES

NOVA SCOTIA STEEL & COAL CO.

Based on the results for the half-year ended June 30th last, as published in these columns last week, the Boston News Bureau estimates that the Nova Scotia Steel & Coal Co. should earn \$62 per share on its \$7,500,000 common stock in 1916.

Further comment states that some ultra-conservative figures have recently cut this total down to perhaps \$50 per share. But this is due to allowance for the heavy Canadian war tax, which amounts to 25% of net profits after allowing 7% on capital and unimpaired reserves.

Nova Scotia Steel can see a year ahead with production of war orders at the volume which has prevailed since January 1st last. There is no tangible reason why its 1917 profits should not equal those of 1916.

The war-tax situation has perhaps taken some of the bloom off the situation, but it has not altered the prospect for permanent values in the common. This prospect centers about the company's enormous iron ore reserves, which are officially placed at a total of 1,500,000,000 tons in the Dominion seam alone. And this Dominion seam is but one of three. The iron ore is contained in both land and submarine areas, the latter amounting to over 82 square miles and much the more important. The argument is that when once developed to a production of 1,000,000 tons of iron ore yearly the company should earn a minimum of \$10 per share on its common from sale of iron ore alone.

President Cantley leaves for Europe this week presumably on business connected with the company. The shipbuilding end of the business is receiving much attention and it is stated that Mr. Cantley is after data in connection therewith. Further car contracts are also in view. The Eastern Car Company, Scotia's subsidiary, has already delivered a large number of cars to both the Russian and French railways, and is constantly loading boats with further cars for the continent. It is stated that the cars so far delivered have been so eminently satisfactory that they have been asked to contract for a further large supply of rolling stock.

The British government has removed the embargo on imports of cotton hosiery into the United Kingdom. The prohibition has been suspended until December 31st, and no license for the importation is required.

TRAIL SMELTER RECEIPTS.

The Consolidated Mining and Smelting Company of Canada, Limited, makes the following statement of ore receipts at Trail Smelter from October 22nd to October 30th, 1916, and from October 1st, 1916, to date, in tons:—

Company's Mines—			
Centre Star	4,081	11,945	
Le Roi	1,896	5,971	
Sullivan	2,486	11,101	
St. Eugene		130	
Emma	666	2,456	
Lucky Thought	42	84	
Molly Gibson		108	
Highland	134	257	
Other mines	2,759	8,294	
		12,064	40,350

THE PORTO RICO RAILWAYS COMPANY, LIMITED.

The following is a comparative statement of earnings for October, 1916. Both the earnings and operating expenses for the month were adversely affected by serious labour disturbances in the Island, resulting from considerable outside pressure in a strike of employees of the Trolley Division, which has since been satisfactorily settled.

	1915.	1916.	Increase, P.C.
For October:			
Gross	\$ 62,072	\$ 63,329	\$ 1,257 2
Net	33,557	28,922	*4,634 *13
For ten months:			
Gross	622,260	691,234	68,974 11
Net.	306,963	340,086	33,123 10
			(*—Decrease.

WINDSOR HOTEL COMPANY.

The Windsor Hotel Company last week declared a dividend of 4 per cent. for the year ending October 31st last, payable on December 1st, the first dividend paid by the company since this time two years ago. In 1914 the company paid a total of 4 per cent. in two half-yearly distributions of 2½ per cent. and 1½ per cent. against 5 per cent. in 1913, and 10 per cent. previously. Earnings in 1915 were only about 1 per cent. on the capital stock and dividends were omitted altogether.

St. Lawrence Bridge Co., a subsidiary of Dominion Bridge Co., has received an order for 100,000 9.2 inch shells.

RAILROAD EARNINGS.

Gross earnings of the three principal Canadian railroads for the week ended November 14th amounted to \$5,160,001, compared with \$4,827,515, an increase of \$332,486, or 6.8 per cent. Grand Trunk continues to furnish the bulk of the increased reported in Canadian railroad earnings, but the other roads are holding well, considering the difference in the grain tonnage to be handled in the west as compared with this time a year ago. Grand Trunk's gain for the second week of the month was in excess of 32 per cent.; C.P.R. and C.N.R. returns were about ½ of 1 per cent ahead of the same week in 1915. Comparisons follow:

Road.	1916.	Increase.	P.C.
C.P.R.	\$3,051,000	\$ 16,000	.52
G.T.R.	1,283,961	312,186	32.1
C.N.R.	825,100	4,300	.52

Totals \$5,160,001 \$332,486 6.8

CANADIAN TRADE FOR OCTOBER.

The preliminary statement of the foreign trade of Canada for the month of October and the seven months ended October 31st show a continued gain in both imports and exports. Imports of merchandise increased from \$39,515,144 to \$71,196,552 in October and from \$253,107,663 to \$462,161,795 in the seven months, while exports of domestic merchandise rose from \$80,038,582 to \$85,312,175 in October and from \$326,430,730 to \$622,023,689 in the seven months.

The grand total for the seven months, including the movement of gold as well as of merchandise, amounts to \$1,313,189,891, compared with \$709,537,488 for the corresponding period of the last fiscal year. The October trade rose from \$150,004,125 to \$164,330,479, a net gain of \$14,326,354.

The most important gain in exports for the month of October is found under manufactures the figures being \$12,880,731 in October, 1915, and \$28,637,814 in October this year.

Exports of other lines were fairly well maintained with the exception of agricultural products which dropped from \$39,833,353 in October, 1915, to \$27,306,934 on the same month this year.

Greasy merino wool sold at the recent Sydney, Australia, sales at the record price of 55½ cents a pound.

Zenith

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Limited

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Manufacturers

MIDLAND, Ontario.

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THE EXPORTER'S FIELD

AGRICULTURAL MACHINERY IN RUSSIA.

Canadian Firms Share in Business.

Determined attempts are being made by Russian organizations to secure a sufficient supply of agricultural implements in anticipation of a great development after the war. The Canadian Trade Commissioner at Petrograd states in a recent report that with the active co-operation of the Ministry of Agriculture, certain leading Zemstvo unions supported by powerful financial institution in Moscow have formed a central board for the purpose of the organization of the purchase and distribution of agricultural machinery and implements in the regions represented. And according to a recent statement in the official gazette for Trade and Industry, purchases for a portion of the requirements of these territories for 1917 have already been concluded, and on a large scale. The following quantities of machines are stated to have been ordered:

Lobogreikas (Russian reapers)	20,000
Reapers	14,000
Binders	500
Mower	10,000
Rakes	5,000
Reaping attachments	500
Grinders for reaper and mower sections.	3,000

It is interesting to note that of the above a leading Canadian firm secured orders for 3,000 reapers and 500 binders. American interests were allotted 9,000 reapers, 8,000 mowers, 3,000 rakes, and 3,000 grinders for mower knives, and 500 reaping attachments. It may be observed here that the total requirements of the territories in question for 1917 are estimated at 96,800 machines, which include 45,000 reapers of foreign manufacture, 26,000 Russian lobogreikas, 15,000 mowers, 9,000 horse rakes and 1,800 binders. From the foregoing some idea of the total needs of Russia in these articles may be imagined. There is also Siberia as a potential market to be taken into consideration, where as a matter of fact the needs for agricultural machinery are even more pressing than in many parts of Russia proper, owing to the relative sparse population, and to the shortage of labour which the war has sensibly affected.

AUSTRALIA'S FOREIGN TRADE.

The trade of Australia in 1915-16 to June 30 last is reported by the Trade Commissioner of Australia as £140,179,977 (\$700,899,855), compared with £160,707,758 (\$803,538,799) in 1913-14, the pre-war year. The value of vessels recently purchased by the Australian Government has not been taken into account.

Imports accounted for £76,582,433 and exports for £63,597,544 in the year under review, as compared with £80,871,372 and £79,836,386 respectively in the year ended June 30, 1914. The trade of Australia, therefore, has not regained the level of 1913-14, in spite of all-round higher prices, and exports of merchandise still show a heavy falling off. It should be added that 1913-14 was a record year.

COTTON USED FOR EXPLOSIVES.

Bleached cotton fiber, including linters and hull fiber, used in the United States, consumed in the manufacture of gun-cotton and explosives of all kinds during the quarter ending September 30th, amounted to 133,982, equivalent 500-pound bales, compared with 142,725 bales during the quarter ending June 30th. Prepared cotton held by manufacturers of explosives at the end of September amounted to 24,686, equivalent 500-pound bales, compared with 22,895 bales held at the end of June.

"THE BATH CITY OF AMERICA."

The name of "Mount Clemens, Mich." is familiar throughout America and is known in Europe. Its mineral springs have relieved a great many persons of rheumatism, neuralgia and other ailments. The hotels of Mount Clemens are open the year round, are modern and first-class and their rates are reasonable. Mount Clemens is best reached via the Grand Trunk Railway. Splendid train service. For full information apply to, M. O. Dafeo, 122 St. James St., Montreal.

TO INCREASE TRADE WITH FRANCE.

Senator Beaubien, who was one of the Canadian party who lately visited France, has addressed a letter to Sir George E. Foster, Minister of Trade and Commerce, expressing the opinion that the time is very favorable for the putting forth of special efforts to increase trade between Canada and France, and his views have been supported by a deputation which waited on the Minister on Friday last. After noting the present moderate volume of trade, Mr. Beaubien says the comparative smallness of it is due to the fact that "Canadian products are practically unknown in France and because French goods are insufficiently known here and generally offered at prices rendered prohibitive by the commissions of many unnecessary middlemen. "Canada exports, yearly, over forty million dollars worth of lumber. It is almost unheard of in France. So it is with our cheese and generally speaking, with all our products save our wheat, agricultural implements and other rare exceptions. No determined effort was ever made by our manufacturers and producers to obtain their fair share of the French market, although France imports largely of those very products for which Canada can best meet the competition of the world.

"For instance, in 1913, France imported:

	Francs.
Cereals	731,000,000
Ordinary lumber	223,000,000
Cheese	87,000,000
Fish	75,000,000

"War conditions have greatly enhanced our opportunities in this respect. About eighty per cent of the total production of asbestos comes from Canada. In time of peace, France imported most of her own supply from Germany. The same can be said of nickel, except what France procured from her colonies. In the department of Isere alone, more than two hundred thousand tons of paper are yearly produced, every pound of which, prior to the war, was made out of German and Austrian pulp."

There will be, Mr. Beaubien says, a very strong desire in France to extend trade with Canada after the war. To strengthen this feeling he suggests that arrangements be made for the sending of a train load of samples of Canadian products to be exhibited in France, particularly at a fair to be held at Lyons in March, and at one to be held in Paris in May; and that a train of French products be sent for exhibition throughout Canada. The principal French railways have agreed to give free transportation to such trains. The Canadian Pacific and Grand Trunk have agreed to do likewise in Canada, and it is expected that the Canadian Northern will also co-operate.

MARKET FOR WOODENWARE IN SOUTH AFRICA.

The Canadian Trade Commissioner at Cape Town, S. A., calls attention to the market for woodenware in South Africa in a report appearing in No. 668, weekly Bulletin, published by the Department of Trade and Commerce. Wooden butter trays, pastry boards, ironing boards, wooden steak mallets, potato mashers, rolling pins, etc., are demanded. Full particulars are contained in the above named issue of the Weekly Bulletin.

NORWEGIAN PAPER FACTORIES CLOSED

Under date of October 12th the Canadian commercial agent at Christiania states that the large United Paper Mills at Drammen, Norway, have closed down entirely, owing to the difficulties in the export situation. The product of these mills is entirely of the waxed variety, the importation of which into the United Kingdom is prohibited.

EXPORT RESTRICTIONS ON LINENS.

The British government has placed dyed and bleached linen cloths under the same export prohibition as unbleached linens. Bleached linen cloths for allied countries and their possessions and all foreign non-enemy destinations will require certificates. Made-up articles, including handkerchiefs, sheets, etc., require no licenses or certificates outside European neutral ports.

BUSINESS WITH ITALY.

The British Chamber of Commerce for Italy has been founded at Naples, with headquarters at Genoa, and four branches at Milan (12 Via Silvio Pellico), Tuscany (Scali d'Azeglio—Leghorn), Rome (75 Via delle Terme), Naples (24 Via G. Sanfelice), from all of which local information may be obtained.

The head office at Genoa and the above branches will be pleased to furnish information regarding Italy, and places its services at the disposal of those interested in Anglo-Italian reciprocal trade. The chamber communicates trade openings to firms in the United Kingdom and British Empire, furnishes names of agents, buyers, consumers, importers, exporters, status reports, customs classifications, etc., and renders generally such services as are performed by similar institutions elsewhere.

PORT OF VLADIVOSTOCK CLOSED.

It was officially announced last week that the Port of Vladivostock had been closed to private shipments, under a system of licenses similar to that which has been effective to Archangel since its opening last spring. The regulations require that shippers obtain special permits direct from Russia for all cargo that is not destined for Government use. Shippers should for each individual shipment make application through his Russian consignee to the Imperial Department of Commerce, Petrograd.

BRITAIN'S FOREIGN TRADE.

The value of the import trade of the United Kingdom in 1915 is placed at £851,893,000 (\$4,259,465,000), in the "Annual Statement of Trade of the United Kingdom" just issued. This compares with £696,635,000 in 1914 and £768,735,000 in 1913.

Of the imports in 1915 £580,068,000 were from foreign countries and £271,825,000 from British possessions, as compared with pre-war figures (1913) of £577,219,000 and £191,516,000 respectively.

As regards exports of British produce and manufacturers, the total for 1915 was £384,868,000, as compared with £430,721,000 in 1914 and £525,245,000 in 1913. Exports to other parts of the British Empire accounted for £148,420,000 in 1915, as compared with a pre-war figure of £195,307,000, while the exports to foreign countries were valued at £236,449,000, as against £329,938,000 in 1913.

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National Finances

From the Monthly Commercial Letter of the Canadian Bank of Commerce.

The revenues of the Dominion for the fiscal year ending March 31st amounted to \$172,147,838, and exceeded those of 1915 by \$39,074,356 or 29.3 per cent. This was in excess of the revenue of any previous year, and may be attributed in part to the moderate special taxation imposed after the outbreak of the war. For the first five months of the present fiscal year, April to August, the revenue amounts to approximately \$84,000,000, an increase of 40 per cent. as compared with the corresponding period of 1915. If this improvement continues it will result in a very decided increase in the excess of revenues over expenditures. The latter are being incurred at almost the same rate as in the previous year, and on the basis of present revenues and existing taxation the surplus for the current year will probably be fully \$70,000,000. This striking change in the position of the Consolidated Fund is made clearer by the following comparison with the figures of previous years:

*Fiscal Year.	Receipts.	Expenditure.	Surplus.
1907-1908	\$ 96,054,505	\$ 76,641,451	\$ 19,413,054
1908-1909	85,093,404	84,064,232	1,029,171
1909-1910	101,503,710	79,411,747	22,091,964
1910-1911	117,780,409	87,774,198	30,006,211
1911-1912	136,108,217	98,161,440	37,946,776
1912-1913	168,689,903	112,059,537	56,630,366
1913-1914	163,174,394	127,384,473	35,789,921
1914-1915	133,073,481	135,523,206	x2,449,724
1915-1916	172,147,838	130,350,726	41,797,112

(*)—The fiscal year ends March 31st.
(x).—Deficit.

For the five months, April to August, capital expenditures by the Dominion Government declined to \$8,015,701, as against \$13,330,670 in the corresponding period of 1915, or no less than 40 per cent. Railway subsidies and other charges for the same period are proportionately less, and furnish evidence of what is being done to conserve the resources of the country for the service of the Empire. War expenditures in the five months referred to amounted to \$76,310,719. The aggregate of these expenditures from the commencement of the war, exclusive of payments made by the British authorities on Canada's behalf, has amounted to \$303,258,950, almost the whole of which has been added to the public debt, but, as a result of the buoyant revenues, and the contraction of the usual capital and ordinary expenditures, a considerable sum will be available this year for application on war account.

Banking and Finance.

Loans in Canada made by the chartered banks amounted at the end of September to \$809,633,207, an increase of \$14,018,473 over the figures at the close of the previous month. Since April the decline in commercial loans from month to month has been steady, and the increase referred to was in a measure due to preparations for the movement of the grain crops and for the purchase of commodities in anticipation of winter. Call and Short Loans increased slightly, and Securities substantially. Total Assets amounted to \$1,893,604,548, an increase of \$52,718,918.

The Circulation outstanding, which has remained for some months almost stationary at \$123,000,000, expanded during September to \$135,285,031, which is equivalent to \$16.90 per capita of the population of the Dominion. The exceptional amount of this expansion is evident from the following figures:

Year.	Population.	Notes in circulation.	Amount per Capita
Average for 1913	3,371,594	\$ 8,307,079	\$ 2.5
" " 1880	4,215,389	20,186,176	4.8
" " 1890	4,792,605	32,059,178	6.8
" " 1900	5,322,248	45,577,387	8.5
" " 1910	6,917,000	79,781,631	11.5
September 1916	8,000,000	135,285,031	16.9

In addition to the notes of the chartered banks, the public held at the end of September \$39,885,630 in Dominion Government notes, of which there had been issued at that date \$174,302,958, the remaining \$134,417,328 being in the hands of the banks. The public therefore held on the date mentioned, \$175,170,661 in currency, or \$22 per capita. In the United States, according to a report of the Treasury Department, the currency at the end of October, exclusive of that held by the Treasury as Government assets and that held by Federal Reserve Banks against note issues, was equal to \$40.02 per capita. This amount, however, includes what is held by the banks. Deposits by the public in Canada continue

to increase substantially, but somewhat less rapidly, owing to the War Loan subscriptions. There has been very considerable activity during the past month in our principal stock markets, interest being shown chiefly in steel and iron and in pulp and paper enterprises.

Foreign Trade.

As noted a month ago, imports continue to be almost double the value of those of corresponding periods of the previous year, and the proportion of raw material to finished goods continues to increase, though manufacturers have still difficulty in procuring materials from abroad, in spite of the relatively high prices in Canada. In value September imports were slightly less than those of August, but the dutiable goods alone represented a sum almost equal to the total imports for September, 1915. Exports of merchandise amounted to \$92,271,399 or \$22,896,451 more than imports. For the twelve months ending September exports of merchandise amounted to \$1,052,925,651 and imports to \$685,278,605, leaving a favourable balance of \$367,647,046.

BANK OF ENGLAND'S HIDDEN SURPLUS.

London despatch that Bank of England site, covering three acres, was conservatively estimated at £7,000,000, reveals an asset never shown in the bank's weekly statement. Following an ultra-conservative policy, the Bank has written off its books such fixed assets as premises and furniture. Reported resources consist entirely of such liquid assets as securities, loans, discounts and cash.

On account of this conservatism the surplus, or "rest," as it is called, appears in balance-sheet at a comparatively low figure. For years it has been maintained at about £3,500,000, or about one-quarter of the capital stock of £14,553,000. If, however, value of the site as estimated is added, the proportion is almost as three to four. This leaves out of account value of the building and furniture of main office in London and of premises of the several branches.

Neither of the two other important European central banks follows the Bank of England policy in this respect. The Bank of France includes in weekly statement the item of premises and furniture valued at 45,000,000 francs, while the Bank of Germany carries a similar item, valued at over 60,000,000 marks.—Wall Street Journal.

CITY OF MONTREAL ISSUE SOLD.

The issue of \$3,800,000, 40 year, 5 per cent. bonds put out by the City of Montreal was sold last week at 97.787. This bid was entered jointly by the National City Company (the bond dealing subsidiary of the National City Bank of New York), Kountz Bros. and Wood, Gundy & Co. The next best was 97.21, entered jointly by Wm. A. Read & Co., Dominion Securities and C. Meredith & Co., Ltd. There were three other tenderers, Harris, Forbes & Co., acting with Brown Bros. & Co., R. M. Grant & Co. and G. A. Stimson & Co.

The bonds are dated November 1, 1916, and are due November 1, 1956, bearing interest at the rate of five per cent. per annum, payable half yearly on May 1st, and November 1st, each year, bonds to be in denominations of \$1,000 each with interest coupons attached.

BANK OF FRANCE REPORT.

The Bank of France in its weekly statement reported the following changes: Notes in circulation decreased 78,259,000 francs; Treasury deposits decreased 49,661,000 francs; general deposits decreased 67,703,000 francs; bills discounted decreased 13,695,000 francs; advances decreased 7,997,000 francs; gold in hand increased 13,604,000 francs; silver in hand decreased 6,611,000 francs.

PERSONAL.

Thomas Cantley, president of the Nova Scotia Steel and Coal Co., has left for a trip to Europe on business connected with the company.

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Head Office: HAMILTON

CAPITAL AUTHORIZED.....	\$5,000,000
CAPITAL PAID UP.....	3,000,000
SURPLUS.....	3,475,000

BANK OF ENGLAND STATEMENT.

The report of the Bank of England for last week shows a decrease for the week in gold coin and bullion holdings of £18,810. Proportion of reserve to liabilities is now 22.54 per cent, against 23.19 last week, 22.41 November 2nd and 22.97 October 26th. The highest percentage thus far in 1916 was 33.59 in the week ending June 8th; the lowest 20.95 on January 6th.

Other changes reported are: Total reserve increased £258,000; circulation decreased £277,000; bullion decreased £18,810; other securities increased £5,551,000; other deposits increased £3,673,000; public deposits increased £2,141,000; notes reserve increased £217,000; Government securities unchanged.

Rate of discount, 6 per cent.

The detailed statement compares as follows with the same week one and two years ago:

	1916.	1915.	1914.
	£	£	£
Gold.....	56,476,421	53,569,667	72,570,142
Reserve	38,032,000	39,005,747	55,706,732
Notes reserve .. .	36,084,000	38,848,590	55,154,890
Reserve to liab. . .	22½%	27½%	34%
Circulation	36,895,000	33,013,920	35,313,410
Public deposits . .	53,737,000	50,181,683	16,286,301
Other deposits . . .	114,919,000	91,678,189	147,334,725
Govt. securities . .	42,188,000	18,895,068	18,600,753
Other securities . .	106,233,000	101,761,023	107,103,443

NEW RUSSIAN LOAN OFFERED.

Public offering of \$25,000,000 of the \$50,000,000 Russian loan which has been negotiated by the New York syndicate will be made this week. The syndicate, consisting of the National City Co., the Guaranty Trust Co., J. P. Morgan & Co., Kidder, Peabody & Co. and Lee, Higginson & Co., has assumed responsibility for the placing of only one-half of the total at this time, and the remaining \$25,000,000 will be offered later.

The loan is unsecured and will run for five years. The issue bears interest at 5 per cent and is being offered at a figure to yield approximately 7 per cent to the investor. It is believed that the bonds which may not be absorbed by individual investors will be taken quickly by institutions which will be attracted by the high interest yield, made necessary by the fact that the Russian loan must compete with the previous issue in the open market and with the various loans which have been floated here by Great Britain and France.

The first Russian loan, arranged in June, was also for \$50,000,000, to run for three years. It established a credit here simultaneously with a credit of 150,000,000 rubles in Petrograd at the rate of three rubles to one dollar. It was agreed that any profit which might arise from exchange fluctuations would be equally divided by the American syndicate and the Russian Government.

With the yield of nearly 7 per cent, bankers consider the new Russian loan an attractive investment opportunity for surplus funds. The Russian Government was averse to having the interest on the face of the issue read at more than 5 1/2 per cent, and accordingly the decision was reached to offer the bonds below par.

MAY FINANCE GRAIN PURCHASES.

It is possible that the Canadian banks may be called upon to finance purchases of grain in Canada for the Imperial government to the extent of \$30,000,000. Proposals to this effect have been made and it is expected that a definite decision will shortly be reached. The arrangement is along the lines followed by our banks on previous credits granted to the Imperial authorities during the past year, although the new credit would be more on commercial lines. For the previous credits granted, the banks have received British exchequer securities, investing in them out of their funds to the extent of the different amounts advanced. The new credit would be in the nature of a three-cornered transaction between banks, the grain purchasing agents of the Imperial Government, and the Imperial Government itself, the banks financing the Government's undertaking.

With the \$50,000,000 credit granted in September last, the total credits from the Canadian chartered banks to the Imperial authorities rose to \$200,000,000.

TOWN PLANNING.

A conference will be held in the Windsor Hotel, Montreal on November 20th, for the purpose of considering the desirability of presenting to the Legislative Assembly of Quebec, during the current session, a petition in favour of the passing of a Town Planning Act for the Province.

The need for such legislation is urgent, owing to the necessity for greater economy and more scientific methods being applied to the development of land for building purposes, and owing to the need for greater conservation of municipal resources. Resolutions have already been passed in favour of it in other parts of the province.

Town Planning Acts are in force in Nova Scotia, New Brunswick, Manitoba and Alberta, and are being considered in other provinces.

ENCOURAGING FIGURES.

During the second year of the war Canada's total trade, exclusive of coin and bullion, reached the new high record of \$1,668,880,000, as compared with \$920,532,000 for the preceding twelve months; the balance of trade in Canada's favor grew to \$359,860,000, as compared with \$89,088,000 for the year ending with August, 1915; the aggregate favorable trade balance for the two years is \$448,948,000, and the export of manufactured articles for the two years aggregated \$453,867,000, or more than four times the total value of manufactured exports for the two years preceding the war.

CANADIAN BANK CLEARINGS.

The total clearings of Canadian banks for the week ended Thursday, November 16th, amounted to \$267,620,756, compared with \$202,854,560 for the corresponding period last year, an increase of 31.9 per cent. The gain from Western cities was 16.2 per cent, and from Eastern cities 41.8 per cent. The following table gives comparative returns, with percentage change:

	Nov. 16, 1916.	Corr. period P.C. last year.	Ch'ge.
Montreal	\$89,902,101	\$62,618,196	43.5
Toronto	64,085,045	43,361,176	47.8
Winnipeg	62,455,338	54,764,847	14.0
Calgary	7,157,833	5,063,047	41.3
Vancouver	6,821,982	5,922,418	15.2
Ottawa	5,375,545	4,624,206	16.2
Quebec	4,751,327	3,676,291	29.2
Hamilton	4,510,461	3,480,364	29.6
Regina	4,001,143	3,037,890	31.7
Edmonton	2,631,915	2,234,390	17.8
Halifax	2,362,968	2,077,882	13.7
Saskatoon	2,206,868	1,854,377	19.0
London	2,003,322	1,823,005	9.8
St. John	1,829,736	1,406,636	30.0
Moose Jaw	1,503,906	1,536,966	*2.1
Victoria	1,389,160	1,192,765	*12.4
Lethbridge	981,050	689,699	42.3
Brantford	833,212	618,205	34.7
Medicine Hat	725,051	451,431	60.6
Brandon	716,238	987,154	*27.4
Sherbrooke	594,687	.....	.....
Fort William	568,972	305,046	86.5
Peterboro	533,132	490,374	8.7
Kitchener	529,402	.....	.....
New Westminster	274,451	245,406	11.8
Totals	\$267,620,756	\$202,854,650	31.9

* Decrease.

SQUARE RIGGER IN USE.

Barge Harvard, formerly a square rigger, sailing from Boston, will be put again under sail as result of great demand for ocean tonnage. She has just been sold by New England Coal and Coke Co., at a price almost as much as it cost to build her 22 years ago.

We shall be glad to look after that part of your private affairs that you find irksome and troublesome, such as letting of houses, collection of rents, &c.

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BONUS FOR BANK CLERKS.

The board of directors of the Bank of Hamilton have granted a special war bonus to the staff of the bank in recognition of extra services necessitated by the large number of employes who have enlisted for overseas service and the increased cost of living. The bonus is based on the salary received and is awarded at the rate of five per cent. to the unmarried men and seven and a half per cent. to the married men.

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HEAD OFFICE: TORONTO

A general banking business transacted.
Domestic and Foreign Exchange Bought and Sold. Collections made throughout Canada and in Foreign Countries.

119 Branches in Dominion of Canada

THE DOMINION BANK

HEAD OFFICE - TORONTO
SIR EDMUND B. OSLER M.P., President
W. MATTHEWS, Vice-President

C. A. BOGERT, General Manager

The London, England, Branch
of
THE DOMINION BANK
at
73 CORNHILL, E.C.

Conducts a General Banking and Foreign Exchange Business, and has ample facilities for handling collections and remittances from Canada.

LLOYDS BANK LIMITED

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

Capital Subscribed - - - £31,504,200
Capital paid up - - - 5,008,672
Reserve Fund - - - 3,600,000
Deposits, &c. - - - 133,958,678
Advances, &c. - - - 56,535,897

THIS BANK HAS 900 OFFICES IN ENGLAND AND WALES.
Colonial and Foreign Department: 17, Cornhill, London, E.C.
London Agency of the IMPERIAL BANK OF CANADA.

French Auxiliary: LLOYDS BANK (FRANCE) LIMITED,
with Offices at PARIS, BORDEAUX, BIARRITZ and HAVRE.

A MILITARY POST OFFICE.

(Concluded from page 23).

are dealt with; those for Salonica; yonder those for Mesopotamia, and again those for France. Then the sub-divisions begin. Enormous letters indicate in which further section the parcels should be placed. Open bags are placed on each section, and into these the appropriate parcels are dropped. For every unit on active service a bag is provided. The battalion, the regiment, the battery, the company, all is marked with the utmost distinctness. Little by little, by a double process of selection and elimination, the identity of the addressee of the parcel is arrived at, and in an amazingly short space of time he receives upon the battlefield or at the base or in hospital the gift designed for him. It is a miracle of system and of rapid despatch. The marvel is increased when it is remembered that incessant changes are continually in progress at the front. Units are moved and the address given by a boy today may not be his address in a week's time. Yet there is little or no delay in delivery even in these circumstances, since the telegraph continually keeps the authorities apprised of all changes in the locale of the units. It is the unit that is aimed at from this side; all details are completed on the other.

Two or three departments of this military Post Office are peculiarly fascinating. One is the repacking department, where parcels which arrive in a broken condition are freshly done up before being despatched to the unit. So great is the carelessness of senders that no less than three thousand parcels per day have to be repacked before they can be sent forward. There are defects in the wrapping paper, which sometimes is so thin that it bursts asunder. Then boxes are used which are easily broken. It is no wonder that the contents of many boxes are reported as missing; the marvel is that the number is not much greater.

"Here were parcels which had been sent on to Cairo to men who were no longer there, then forwarded to France again to miss their owners, and finally to arrive at this London base to be re-addressed to the men elsewhere or worst of all to Australia, the lads having been killed in action. If those parcels could speak!

"One department is marked with the single word 'Blind'. It has no reference to blasted vision. It is the corner where uncertain or insufficient addresses are scrutinized and if possible, rectified. And it is surprising how many of these there are!

"As I realize the magnitude of all this work and the wonderful efficiency with which it is conducted, it seems to be a duty to let the public know how great is its debt to the men who are keeping open so completely communications between the men at the front and their friends at home."

DIVIDEND NOTICES.**Hollinger Consolidated Gold Mines, Limited**
(No Personal Liability)
DIVIDEND NO. 54.

The regular four-weekly dividend of 1% upon the outstanding capital stock has been declared payable 1st December, 1916, on which date cheques will be mailed to shareholders of record at the close of business on 24th November, 1916.

DATED 17th November, 1916.

D. A. DUNLAP,
Secretary-Treasurer,**The Bank of Nova Scotia****DIVIDEND NO. 188.**

Notice is hereby given that a Dividend at the rate of fourteen per cent. per annum on the paid-up Capital Stock of this Bank has been declared for the quarter ending December 31st and that the same will be payable on and after Tuesday, the 2nd day of January next, at any of the offices of the Bank. The Stock Transfer Book will be closed from the 18th to the 31st proximo, inclusive.

By order of the Board,

H. A. RICHARDSON,
General Manager.

Halifax, N. S., November 16th, 1916.

Lake of the Woods Milling Co., Ltd.**DIVIDEND NOTICE.**

Notice is hereby given that quarterly dividends of 1 3/4 per cent. on the Preferred Stock and of 2 per cent. on the Common Stock of Lake of the Woods Milling Company, Ltd., have been declared, payable on Friday, December 1st, to shareholders of record at the close of business on Saturday, November 25th, 1916.

By order of the Board,

R. NEILSON,
Assistant Secretary.**NORTHERN ASSURANCE COMPANY,
LIMITED.**

At a meeting of the General Court of Directors of the Northern Assurance Company, held at 1 Howgate Street London, recently the following arrangements were made in connection with the staff, to take effect from January 1st next:

Mr. H. E. Wilson, General Manager, to retire after 51 years' service with the company. Messrs. H. S. Gayford and J. Robertson, Secretary of the London Board and Manager in Aberdeen respectively, to become Joint General Managers of the Company.

The Post Magazine and Insurance Monitor says: "Mr. Henry Edward Wilson, whose termination of a long and honorable official career, loyally devoted to the interests of one office, is thus briefly announced, was born in London in 1850 and is in his 66th year. We was 15 years old when he entered the service of the Northern, and after acquiring considerable departmental knowledge and experience, was promoted in 1878 to the position of Assistant Secretary, and in 1894, following upon the death of Mr. James Valentine, to that of General Manager. His last year of office has been signalized by his occupancy of the Presidential Chair of the Chartered Insurance Institute, and his numerous friends in the profession will wish for him many years of happy leisure.

"Like their predecessor, Mr. Gayford and Mr. Robertson have identified their careers with the Northern, which is happy in the talent it can thus command."

BORROWING ON YOUR POLICY.

"Experience powerfully suggests that nine times out of ten borrowing on your life insurance is a sign of moral raveling. It is like borrowing money on mortgage to buy something you could get along without if you had the sand. Avoidable borrowing is a habit, like tobacco and drink—as easy to form as either and as hard to break. If you are tempted to borrow on your insurance, go bury the policy in the cellar and forget that it exists as a source of credit.

The fact is that, on the whole, credit is too easy. There ought to be fewer facilities for getting into debt, instead of more."—Saturday Evening Post.

LIFE OFFICERS' ASSOCIATION.

Mr. Alexander Bissett, of Montreal, manager of the London and Lancashire Life, was re-elected president of the Canadian Life Insurance Officers' Association at the annual meeting held in Toronto last week. Mr. D. E. Kilgour, actuary of the North American Life, was re-elected as honorary secretary of the Association, a position he has held for several years.

In addition to the reception of the annual report and the election of officers, a number of important matters were considered by the association. Among these were such questions as the effect of the Privy Council's decision in connection with the Dominion and provincial legislation, and the question of having uniform provincial life insurance legislation. Special committees were appointed in connection with matters which it is anticipated will concern the association during the coming year.

**Protection--Savings--
Investment**

"3 IN 1" All the three features of savings, protection and investment are combined in the participating endowment policies issued by the The Mutual Life of Canada.

SAVINGS. Many who would save little or nothing under any other system have succeeded with the help of an endowment policy in securing "the first thousand."

INVESTMENT. No other security is more safe than a Mutual Life endowment policy and as to profit these policies return from \$120. to \$210. for every hundred invested in them, in addition to the protection afforded.

PROTECTION. In addition to the savings and investment features, the home of the policyholder is absolutely protected throughout the endowment term for the amount of the contract—which is therefore the best security a man can hold.

**THE MUTUAL LIFE ASSURANCE
Company of Canada**
WATERLOO ONTARIO

**UNION ASSURANCE SOCIETY
LIMITED
OF LONDON, ENGLAND**

FIRE INSURANCE SINCE A.D. 1714

Canada Branch, Montreal:
T. L. MORRISEY, RESIDENT MANAGER.
North-West Branch, Winnipeg:
THOS. BRUCE, BRANCH MANAGER.
AGENCIES THROUGHOUT THE DOMINION

Success and Progress

These are two outstanding features of the history of the North American Life over the past 30 years.

Year.	Income	Payments to Phldrs.	Assets.	Assurance in Force.
1885	153,401	38,016	343,746	4,849,287
1895	581,478	105,712	2,300,518	15,779,385
1905	1,660,064	538,827	6,968,014	37,580,047
1915	2,749,951	1,386,025	15,716,889	56,245,318

This is a rapidly growing institution and offers an attractive opportunity for a live agent.

**NORTH AMERICAN LIFE
ASSURANCE COMPANY**

"Solid as the Continent."

Head Office, Toronto, Ont.

Founded in 1803

**THE LAW UNION AND ROCK
INSURANCE CO. LIMITED
OF LONDON**

ASSETS EXCEED \$48,000,000.
OVER \$12,500,000 INVESTED IN CANADA.
FIRE & ACCIDENT RISKS ACCEPTED.

Canadian Head Office:

57 Beaver Hall Hill, MONTREAL
Agents wanted in unrepresented towns in Canada
J. E. E. DICKSON, Canadian Manager.
W. D. AIKEN, Superintendent Accident Dept.

The Independent Order of Foresters

Policies issued by the Society are for the protection of your family and cannot be bought, pledged or sold.
Benefits are payable to the beneficiary in case of death, or to the member in case of his total disability, or to the member on attaining seventy years of age.

Policies Issued From \$500 to \$5,000
TOTAL BENEFITS PAID (Over).....\$50,000,000

FRED. J. DARCH, Secretary.
ELLIOTT G. STEVENSON, President.
S. H. PIPE, F. A. S., A. I. A.,
Actuary.

**WESTERN ASSURANCE
COMPANY**

INCORPORATED 1851

Fire, Explosion, Ocean Marine
and Inland Marine Insurance.

Assets Over - - - \$4,000,000.00
Losses paid since organization, over - - - 63,000,000.00
HEAD OFFICE - - - - - TORONTO, ONT.
W. R. BROCK, President.
W. B. MEIKLE, Vice-Pres. & Gen. Man.
QUEBEC PROVINCE BRANCH:
61 ST. PETER STREET, MONTREAL
ROBERT BICKERDIKE, Manager

"I WANT TO THINK IT OVER."

Many men, and many women, too, when asked to insure their lives, say: "I want to think it over." A writer in System pointedly replies:

"You want to think this over! I am going to give you something else to think over. If the tall man with the big scythe and the long beard happens to tap on your window pane some night within the next few weeks, I suppose you will sit up in bed and say to him: 'I want to think this over. Moreover, I've got a life insurance deal on that I want to put through. You go away until I make up my mind.' But he will not go away. Now you think that over."

USE AND OCCUPANCY INSURANCE.

Extract from address by John A. Eckert before members of Insurance Society of New York.

After reviewing the development of use and occupancy insurance, Mr. Eckert explained the coverage given under this form of indemnity. He said in part:

"It has been suggested that the term 'use and occupancy' might very well be discarded and another name applied to this form of insurance, which would more clearly describe its character. The term 'business interruption indemnity' has been suggested. Whether or not this suggestion is a good one depends entirely on whether a uniform contract will eventually be adopted or come into common use by the companies which will clearly define the coverage. In view of the many different forms of contract which are now being used, which result in many wide differences in the matter of loss payments under use and occupancy policies, something should be done for the guidance of the public and for the purposes of enabling the companies to determine how to underwrite this class of insurance by way of providing a standard form of contract so that the public may at all times know what a use and occupancy policy means, and the companies at all times know what their liability is under all such policies.

"Several companies have adopted their own use and occupancy forms, but it is my opinion that they very rarely have an opportunity to use them unless they take the order for the insurance direct from the assured or are dealing with an agent who has very little knowledge on the subject. Almost all large agencies have their own form and almost every large brokerage office has its own form, with the result that we very rarely see two forms alike and by this is meant alike as to application and coverage.

"There is a speculative element associated with use and occupancy insurance, when written under a valued form which has not been referred to in any of the papers or speeches which I have read and heard on the subject. Under the present underwriting methods an insured is at liberty to carry as much use and occupancy insurance as he is willing to pay for. This permits an insured, knowing that he has a plant subject to probably total destruction, to carry insurance in excess of all probable loss. For instance, a man with a plant with such as I have referred to, who might easily cover all his indirect losses with use and occupancy insurance, amounting to \$50,000, which would provide for the payment of \$200 per day, might figure that it would be a good speculation for him to carry insurance to the amount of \$120,000, thus enabling him to collect \$400 per day. Such an act would not be considered exactly honest by the underwriter, but the average business man, not being imbued with the spirit of indemnity only, which exists in the mind of the underwriter, would not think there was anything wrong in effecting excess insurance under such circumstances, so long as the companies were willing to issue the policies and accept the premium."

THE NECESSITY FOR GREATER ECONOMY.

(Monthly Commercial Letter, Canadian Bank of Commerce).

If the people as a whole understood clearly why it was necessary to economize, there would be a much greater response to the appeals of the leaders of the nation. The enormous purchases made by the Allies from our manufacturers have entailed the payment of high wages to industrial workers and thus, from the very necessities of the Empire, the latter find themselves possessed of a greater purchasing power than at any previous time. This power can be used either for selfish gratification or for helping to win the war. If the former—the selfish—course is followed it is practically frittering away the resources of the Empire. On the other hand, the thoughtful patriot will save every cent to lend to his country. Those with the habit of spending freely are apt to look with aversion upon those with a disposition to save, but for the time being those who do save are the ones who forge the "silver bullets" that are now more than ever necessary.

J. W. Norcross, vice-president and general manager of the Canada Steamship Lines arrived home from England last week. He was accompanied by other officials of the company.

Correspondence**COMMERCIAL TRAVELLERS' ASSOCIATION.**

Editor of The JOURNAL OF COMMERCE,
Montreal,

Dear Sir:

Allow me to call your attention to an error in your valued paper of the 7th inst. on page 24 Referring to the Nomination of Directors of the Commercial Travellers you say the Dominion Travellers' Association. You should have said the Commercial Travellers' Association of Canada.

The Dominion Commercial Travellers' have their head office and Secretary at Montreal, having about 8,000 members, The Commercial Travellers' Association of Canada has its head office and Secretary at Toronto with members in almost every City to the Coast numbering 12,000. The Ontario Travellers' Association have head office and Secretary at London, Ont., with membership of about 1,200.

The North Western Travellers' Association have head office and Secretary at Winnipeg, about 7,000 members. All these associations have a substantial reserve fund used as a mortuary benefit to families of deceased members. Some state a positive amount for each age of members. One has an appropriation each year fixed by acting actuary according to the number of members and the income of the past year. This one has an interest income account that in the past has been equal to about 70% of death claims for the year.

AN OLD MEMBER.

AN ELECTRIFIED FUTURE. AN OCCUPATION FOR WOUNDED SOLDIERS.

The soldier owes much to electricity. Success in battle is largely due to knowledge of the enemy's position and movements, often gained by wireless signalling from aeroplanes; and to the rapid transmission of that knowledge and the consequent orders, by telephone and telegraph.

Our command of the sea is perfected and maintained largely by wireless electric communications between our ships, and between ship and shore.

In repairing the ravages of war, also, especially on human beings, electricity is most valuable. Electric treatment is one of the many scientific methods by which the Military Hospitals Commission of Canada is restoring our wounded and weakened soldiers to strength, and making them fit for independent and self-supporting activity in civil life.

Mr. George Iles, a Canadian writer who has devoted much attention to this subject, writes to the Military Hospitals Commission suggesting that electricity may also furnish a congenial and profitable occupation for many of these soldiers when they leave hospital.

Electric smoothing irons, toasters, heaters, lamps, motors, sweepers and tools are very popular where they have been introduced. Their popularity is bound to go on increasing as they become better known, and a large increase of output will bring about a decrease in price when normal times return. The price of electric current has been reduced already, thanks to the partial development of our magnificent water-powers.

A blind officer, Lieut. Edwin Baker, one of the few Canadian soldiers who has lost the sight of both eyes, has just been appointed to a position on the engineering staff of the Ontario Hydro-Electric Power Commission. Mr. Iles suggests that many other Canadian Veterans unfitted for hard muscular work might well be employed, as canvassers and demonstrators, in popularizing electrical appliances throughout the country.

The battle of the Somme, where Canadians have played so conspicuous and heroic a part, is sending home hundreds of men unable to rejoin the fighting ranks, and thousands of our disabled men had returned even before that great battle had begun.

Every suggestion of useful and profitable employment for injured soldiers, therefore, is to be warmly welcomed.

The brains as well as the sympathies of the nation must be actively engaged in promoting the success of this national enterprise.

WILL ADDRESS CONVENTION.

Herbert C. Cox, president of the Canada Life Assurance Company, will address the Association of Life Insurance Presidents at the convention to be held in New York December 14th and 15th. His address will be, "A Decade of Business Progress in Canada."

THE
Dominion Savings
AND
Investment Society

Capital - - - \$1,000,000.00
Reserve - - - 235,000.00

T. H. Purdom, K. C. Nathaniel Mills
President Managing Director

Dominion Savings Bldg.
LONDON, CANADA.

AN IDEAL INCOME

can be secured to your Beneficiary with
Absolute Security by insuring in the

Union Mutual Life Insurance Company,
Portland, Maine

on its

MONTHLY INCOME PLAN

Backed by a deposit of \$1,688,922.65 par value with the
DOMINION GOVERNMENT in cream of
Canadian Securities.

For full information regarding the most liberal
Monthly Income Policy on the market write, stating
age at nearest birthday, to

WALTER I. JOSEPH, Manager
Province of Quebec and Eastern Ontario.
Suite 502 MCGILL BLDG., MONTREAL, QUE.

Commercial Union Assurance Co.
LIMITED OF LONDON, ENG.

The largest general Insurance Company in the world

Capital Fully Subscribed	\$14,750,000
" Paid Up	1,475,000
Life Fund and Special Trust Funds....	74,591,540
Total Annual Income Exceeds	47,250,000
" Funds Exceed	142,000,000
" Fire Losses Paid	183,366,690
Deposits with Dominion Government ...	1,225,467
(As at 31st December, 1915.)	

Head Office, Canadian Branch—Commercial Union Bldg
232 236 St. James Street, Montreal

Applications for Agencies solicited in unrepresented
districts.

J. M. GRIGOR - - - Mgr. Canadian Branch
W. S. J. CHING - - - Asst. Manager

**A Free Course in
"Salesmanship"**

We have thought about the young
man who sees no prospects ahead.
Would you like to be in a busi-
ness that will give you

A GOOD LIVING WAGE
A PROFITABLE FUTURE
A PROVISION FOR OLD AGE

We teach a man the Insurance
Business, which offers permanent
success, does not fluctuate, is a
professional occupation, and has
been truly named "The best paid
hard work in the world."

This is done by a correspondence
course and personal assistance,
free of charge.

When he is fully prepared for the
work, we place him in a position
and help him to make good.

The first two lessons of the Com-
pany's correspondence course will
be sent to anyone interested. It
will pay young men who desire
to get on in the world to look into
this.

All correspondence strictly con-
fidential.

CANADA LIFE
ASSURANCE COMPANY

Head Office, Toronto.



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

PROFESSIONAL

THE REV. M. O. SMITH, M.A., WILL ADVISE
with fathers concerning the instruction and education of their sons. No. 544 Sherbrooke St. West.
Or telephone East 7302, and ask for Mr. Kay.

HOWARD S. ROSS, K.C.

EUGENE R. ANGERS

ROSS & ANGERS

BARRISTERS and SOLICITORS

Coristine Building, 20 St. Nicholas St., Montreal

DIVIDEND NOTICE.

Bank of Montreal

NOTICE is hereby given that a DIVIDEND of TWO-AND-ONE-HALF Per Cent., upon the paid up Capital Stock of this Institution, has been declared for the current quarter, also a BONUS of ONE Per Cent., both payable on and after Friday, the FIRST DAY OF DECEMBER next, to Shareholders of record of 31st October, 1916.

By order of the Board.

FREDERICK WILLIAMS-TAYLOR,
General Manager.

Montreal, 20th October, 1916.

Canadian Pacific Railway Company

DIVIDEND NOTICE.

At a meeting of the Board of Directors held today a dividend of two and one-half per cent. on the Common Stock for the quarter ended 30th September last, being at the rate of seven per cent. per annum from revenue and three per cent. per annum from Special Income Account, was declared payable on 2nd January next, to Shareholders of record at 3 p.m. on 1st December next.

By order of the Board,

W. R. BAKER,
Secretary.

Montreal, 13th November, 1916.

The Home Bank of Canada

NOTICE OF QUARTERLY DIVIDEND.

Notice is hereby given that a Dividend at the rate of five per cent (5%) per annum upon the paid-up Capital Stock of this Bank, has been declared for the three months ending the 30th November, 1916, and that the same will be payable at the Head Office and Branches on and after Friday, the 1st December, 1916. The Transfer Books will be closed from the 16th November to the 30th November, 1916, both days inclusive.

By Order of the Board,

J. COOPER MASON,
Acting General Manager.

Toronto, October 25th, 1916.

compounds and all propellant or explosive powders, mixtures or substances;

For the purpose aforesaid, to carry on business of chemical manufacturers, refiners, machinists, workers in metal, wood workers, builders and contractors, mechanical engineers, ship owners, merchants, importers and exporters;

To carry on the business of quarrymen in all its branches, and to mine, dig for, excavate, make marketable, sell, exchange and otherwise deal in mineral metals, and other substances of the earth;

To buy, sell and deal in property of all kinds, and to construct, erect and build power plants, factories, warehouses, railway sidings, conveyors, piers, wharves, docks and other buildings or structures of every kind and description necessary or convenient for the purpose of the company;

To apply for, purchase or otherwise acquire, or control any trade marks, trade names, copyrights, patents, grants, licenses, leases, concessions and the like, conferring any exclusive or non exclusive or limited right to use, or any secret or other information as to any invention which may seem capable of being used for any of the purposes of the company, or the acquisition of which may seem calculated to benefit this company, and to use, exercise, develop or grant licenses in respect of, or otherwise turn to account the property, rights, interest or information so acquired;

To purchase or otherwise acquire real estate or any interest therein, in addition to such as may be necessary, for the purposes herein before expressed and to own, hold, or improve, mortgage, sell and deal in the same;

To acquire, own, deal in and deal with all materials and articles of any kind or description use or useful in connection with any or all of the purposes and objects herein before expressed;

To manufacture, purchase or otherwise acquire, and to sell and deal in all kinds of materials, goods, wares, and merchandise which may be required for any of the purposes of the Company's business or which may seem capable of being profitable used or dealt in, in connection with such business;

To make, accept, endorse, execute, and issue promissory notes, bills of exchange, bonds, debentures, and other obligations, from time to time, for the purchase of property or for any purpose in or about the business of the company and to secure, the payment of any such obligation, by mortgage, pledge, deed of trust, or otherwise;

To enter into, make, perform, and carry out contracts of every sort, and kind which may be necessary or convenient for the business of this Company, or business of similar nature with any person, firm, corporation, private, public, or municipal, body politic;

To do all and everything necessary, suitable and proper for the accomplishment of any of the purposes or the attainment of any of the objects, or the furtherance of any of the powers herein before set forth, either alone or associated with other corporations, firms or individuals and to do any other act or acts, thing or things, incidental or pertaining to, or growing out of, or connected with the aforesaid business, or powers, or any part or parts thereof, provided the same be not inconsistent with the law under which this corporation is organized;

To issue fully paid shares of the capital stock of the company in payment, in whole or in part for any property, rights, interests or effects, which the company may acquire for the purpose of its undertakings or business, to use any of the shares, bonds, debentures, or other securities, or the funds of the company, to purchase or otherwise acquire, and to take, hold, sell the shares, bonds, debentures, or other securities of, or in any other similar company or corporation, and to guarantee payment of the principal and interest of the bonds, debentures, or the dividends upon the shares of any similar company or corporation, and to promote any company or corporation having objects similar to those of this company, and while holding the same, to exercise all the rights and powers of ownership, including the voting powers thereof;

To consolidate or amalgamate with any other company having objects similar to those of this company;

To enter into arrangement for sharing profits, union of interests, co-operation, joint adventure, reciprocal concession or otherwise with any person or company carrying on or engaged in any business or transaction, which this company is authorized to engage in or carry on, and to take or otherwise acquire shares or securities of any such company, and to sell, hold, issue or reissue the same, with or without guarantee of principal or interest, or otherwise to deal with or dispose of the same;

To sell, lease, exchange, or otherwise dispose of the property, rights, interest, franchise, and undertakings of the company, or any part thereof for such consideration as the company may think fit, and in particular for shares, bonds, debentures, or securities of any other company;

To procure the company to be licensed, registered or otherwise recognized in any foreign country, and to designate persons therein as attorneys, or representative of the company in all matters, according to the laws of such foreign country and to accept service for and on behalf of the company of any process or suits;

To issue in payment of any property or rights acquired by the company in consideration of any amalgamation or other arrangement for the purchase of the Company's object or for services, bonds or common or preferred shares of stock of the Company, as fully paid up and non-assessable;

To acquire and undertake or to purchase, lease the whole or any part of the business rights, goodwill, property and assets of any individual, firm, association, or corporation, and to assume the whole

or any part of the liabilities thereof, and to pay for the same in whole or in part in cash or in lands or in payment or part payment thereof, to allot and issue, fully paid up and non-assessable shares of the capital stock of the company;

To distribute among the shareholders of the company in-kind any property of the company and in particular shares, debentures or securities of the company or of other person, companies or corporations; and belonging to the company or which the company may have power to dispose of;

To invest its reserve or any accumulated funds, in any other enterprise or in the purchase or the acquisition of the shares, bonds, debentures or other securities of any company or corporation, or of any municipal or state bonds, or other securities, and to sell, exchange, or otherwise dispose of the same, under the name of "Canadian Raw Products Development Company, Limited", with a capital stock of forty-nine thousand nine hundred dollars (\$49,900.00), divided into four hundred and ninety nine (499) shares of one hundred dollars (\$100.00) each.

The principal place of business of the corporation, will be in the city of Montreal.

Dated from the office of the Provincial Secretary, this sixth day of October, 1916.

C. J. SIMARD,

5570-42-2 Assistant Provincial Secretary.
Bisaillon, Bisaillon & Beigue,
Attorneys for Applicants.

"Légaré Automobile, limited".

Public notice is hereby given that, under the Quebec Companies' Act, supplementary letters patent have been issued by the Lieutenant Governor of the province of Quebec, bearing date the twentieth of October, 1916, changing the name of the company "Légaré Gadbois Automobile, limited", to that of "Légaré Automobile, limited" and granting it the following additional powers:

To manufacture and generally deal in furniture, wooden wares and iron mongery and generally all things entering into such business, foodstuffs excepted;

To acquire by purchase, private, judicial public or other sale, exchange, gift, giving in payment or in any other manner and under any title whatever, to lease, receive as a loan, pledge, deposit, security to own, hold, detain, exploit and occupy under any title and in any manner all rights and property both corporeal and incorporeal, whether moveable or immovable without any exception whatever;

To sell, give on lease or as a pledge, deposit, security, in exchange or payment and generally to alienate, cede, convey or in any other manner or under any title to dispose of the rights and property mentioned in the preceding paragraph;

To encumber with servitudes and hypothecate any immovables whatever and to assent to any emphyteutic lease, either as lessor or lessee;

To exercise all powers mentioned in the two preceding paragraphs, each and every time and in all cases, circumstances and conditions wherein the company shall deem it to be in its interest, suitable, advantageous or necessary for its undertakings to exercise said powers;

To borrow all such amounts as the company may think suitable or necessary to borrow for the purposes of its undertakings of the exercise of any of its powers and that at any time and as often as it shall deem it proper to do so, and to contract such loans on such terms and conditions and by giving such securities and hypothecs as the company shall deem it convenient;

To issue at any time and as often as the company may think suitable or necessary, debenture stock and dispose of same for such amounts and on such terms and conditions as the company may think proper;

To hypothecate, guarantee or pledge by authentic deed to secure the payment of bonds, debentures and debenture stocks which it is empowered, by law or by its charter, to issue, of present or future moveable or immovable property which the company now owns or may own in future in the province, and in a general way to exercise, under the conditions mentioned therein, all powers mentioned in articles 6119A to 6119D, inclusively of the Quebec Revised Statutes, 1909;

To erect or cause the erection of all buildings and constructions whatever, or act as contractor for all kinds of constructions and buildings;

To acquire in any manner whatever, own and hold, exploit and utilize all kinds of franchise and privileges;

To distribute in kind among the shareholders, any property of the company, and in particular any shares or other securities of other corporations, public bodies or companies which the company may own;

To issue and allot paid up and non-assessable shares, bonds, debenture stocks or other securities, and to pay therewith for all services, debts and liabilities of the company;

To enter into any contracts of lease, service, surety, mandate, agency, transaction, and generally all contracts and agreements whatever which a corporation is able to enter into, without any exception.

Dated from the office of the Provincial Secretary, this twentieth day of October, 1916.

C. J. SIMARD,

Assistant Provincial Secretary.

WINTER TOURIST FARES.

Special fares are now in effect to resorts in Florida, Georgia, North and South Carolina, Louisiana and other Southern States and to Bermuda and the West Indies. Return limit May 31st, 1917. For tickets, reservations and all information apply to, M. O. Dafoe, 122 St. James St., Montreal.

COMMODITY MARKETS

WEEK'S WHOLESALE REVIEW.

Trade reports from all parts of the Dominion continue generally favorable. In spite of the poor crops in many districts, prices are such that the purchasing power of the farming community is little impaired. Industries continue actively employed providing lots of work for labor at high wages, so that the general demand on the retailer, and consequently on the wholesale trade continues urgent. Delivery is now the problem of the wholesale trade. Dry goods hardware, leather goods, and various lines of groceries are difficult to get, and slow delivery from primary centres is causing a deal of trouble. Knitting mills are in the market this week with next winter's lines, and are rapidly filling up with orders. Prices are from 10 to 15 per cent. above last year. The mills are well employed on domestic and government orders, although the latter are now running out and for the moment no new contracts are in sight. Hardware lines are also active, with munitions business still a prominent feature. Retailers report a good business in seasonable lines, and prices continue on the upgrade. Boot and shoe factories are well employed. Retail business is good even at the high prices now prevailing. The leather market is very firm and tending steadily toward higher levels.

The dairy produce trade continues active. Cheese and butter prices during the last week touched record levels, cheese selling at 25c a pound and creamery butter at 43½c a pound at country sales. The demand for export is very urgent and English importers appear willing to pay the price. The egg market is also very firm. There is a good export demand for cold storage stock while fresh grades are scarce. The poultry market is very firm for good stock.

Millers announced a drop of 20 cents a barrel on spring wheat flour in sympathy with the decline in wheat prices. This is the first change that has taken place in this direction for some months. The Canadian government has placed a large contract with spring wheat millers, but ordinary export business is slow and there is a tendency to await the outcome of the British food control regulations recently announced. Domestic trade continues fairly active.

DAIRY PRODUCE

BUTTER: Prices tend steadily higher. Country sales during the week registered advances of from ¼c to ¾c per pound. The Board of Trade sales at Montreal were very brisk with prices from ¾c to 1c higher than the previous week. One car lot of finest creamery sold on Thursday at 43½c per lb. with sales of smaller lots at from 43¼c to 44c. There is a good demand from both local and outside buyers, and the strength of the country dairy markets certainly tends toward higher prices at the market centres.

CHEESE: A decidedly strong feeling has developed in the cheese situation. Prices at a number of the country sales during the week were strong at 25c a lb., with advances of from 1¾c to 2c a lb. as compared with last week. The demand for both domestic and export account continues very active, with Liverpool cables strong.

Current quotations are as follows:

Butter:—	
Fresh creamery solids.....	0.43½ 0.44
Dairy butter.....	0.39½ 0.40
Pale mild butter, ½ to 1% salt, for export.....	0.44
Seconds.....	0.42 0.42½
City Selling Prices to grocers:	
Choice Creamery Solids.....	0.44½
Do., Prints, city cut.....	0.45
Cooking butter.....	0.37½ 0.38½
Cheese:—	
Finest Western.....	0.24¾ 0.25
Fine Western.....	0.24¾ 0.24½
Finest Eastern.....	0.24 0.24¾
City Selling Prices to grocers:	
Large.....	0.25
Stilton cheese.....	0.24
Twins.....	0.25
Canadian French Cheese.....	0.24
Canadian Strong Cheese.....	0.25 0.26
Roquefort.....	0.65
Swiss Gruyere.....	0.60

BUTTER SALES.

Cowansville, Que., Nov. 18.—E. T. Dairyman's Exchange, 398 pkgs. creamery at 43c to 44c per lb. Price last year 30½c.
St. Hyacinthe, Que., Nov. 18.—100 pkgs. butter at 42c. Price last year 30c.

COUNTRY PRODUCE.

EGGS: There continues to be a good demand from English importers for round lots of straight cold storage stock, with sales at around 40c to 42c f.o.b., but stocks are so low that only a moderate business has been accepted. The demand for local consumption continues brisk and a very firm feeling prevails in the market on spot. Fresh grades are scarce, with prices accordingly high.

POULTRY: Supplies of dressed poultry are coming forward in good volume, and the demand for good stock is firm. Inferior stock is rather a drag on the market.

The market for other lines of country produce continues firm:

Eggs:—	
Special New Laid.....	0.53 0.55
Extras.....	0.48 0.50
No. 1.....	0.40
No. 2.....	0.36
Poultry—Live:	
	per pound.
Fowls, 5 lbs. and over.....	0.13 0.14
Fowls, small.....	0.12 0.13
Old Turkeys, cocks.....	0.24 0.25
Do., hens.....	0.25 0.26
Fresh Killed Poultry:	
Old Turkeys, cocks.....	0.25 0.26
Do., hens.....	0.26 0.27
Do., Roasting.....	0.27 0.28
Fowls, hens.....	0.15 0.16
Do., roosters.....	0.14 0.15
Broilers, 2½ to 3 lbs., per lb.....	0.20 0.22
Do., 2 to 2¼ lbs., per lb.....	0.21 0.23
Squabs.....	0.35 0.45
Geese.....	0.16 0.17
Maple Products:—	
Pure maple syrup, quart cans.....	1.00 1.10
Pure maple syrup, 9 lb. tins.....	1.25 1.30
Extra choice syrup, 13-lb. tins.....	1.13 1.14
Potatoes:—	
Green Mountains, per bag of 80 lbs. ex-track.....	2.25
Do., to jobbers, ex-store per 80lb. bag.....	2.25
Quebec's, per bag of 80 lbs. ex-track to jobbers, ex-store, per 80 lb. bag.....	2.10 2.20
Beans:—	
Can. hand-picked, car lots.....	6.50 6.75
Three-lb. pickers.....	6.00 6.25
Five-lb. pickers.....	5.85 5.90
Six to seven-lb. pickers.....	5.00 5.75

LIVE STOCK.

Offerings of young stock on the Montreal markets last week were very heavy. Demand from packers was very brisk with sales of bulls at \$4.60 to \$4.90, and cows at \$3.50 to \$3.90 per 100 pounds. There was also a good demand from butchers. Choice steers continue scarce, but the supply of other grades fair and prices held steady. American buyers were prominent at the week's sales but prices were mostly out of their reach.

The tone of the market for sheep and lambs was firm under a good demand from local buyers for supplies and the fact that quite a few round lots were also bought for shipment to the United States. There was no change in calves. The bulk of the offerings were grass-fed stock and the top price realized for such was 6c per lb., while milk-fed calves were scarce and firm. The market for hogs was weaker and prices scored a further decline of 10c to 25c per 100 pounds. The demand from packers was good and an active trade was done with sales of choice selected lots at \$11.25, good selects at \$11, sows at \$9.25, and stags at \$5.50 to \$5.65 per 100 pounds weighed off cars.

MONTREAL GRAIN STOCKS.

The following is a statement of the stocks of grain and flour in store in Montreal on the dates mentioned:

	Nov. 18 1916.	Nov. 11, 1916.	Nov. 20, 1915.
Wheat, bushels.....	1,775,955	1,789,947	1,823,865
Corn, bushels.....	221,901	417,617	9,829
Oats, bushels.....	5,045,544	5,214,784	1,044,435
Barley, bushels.....	236,042	382,426	78,666
Rye, bushels.....	1,233	27,304	15,375
Flax, bushels.....	24,948	30,933	.....
Flour, sacks.....	26,492	35,761	69,125

FLOUR, CEREALS AND MILLFEED.

The excited tendency of the wheat and flour situation has been amply presented during recent weeks. After a steady advance the wheat market last week became notably easier and bullish news from Argentina, and prices scored a drop of 9¼c to 9¾c a bushel. Prices of spring wheat flour had kept step on the upward march, but millers late last week announced a drop of 20c a barrel, thereby removing the previous week's advance. A feature of the past week was the Dominion Government contract for a large round lot, and orders were allotted. Export business is very quiet for the moment, but domestic business is brisk and the mills are fairly well employed.

Winter wheat flour is in better supply and trade last week was active. The wheat market tends very steady and flour prices are firm at the previous week's advance.

There is an active demand for all lines of mill-feed and as the supply is being reduced prices are very firm. The country demand is brisk, under the excellent demand for all lines of live stock.

Current quotations are as follows:

	Montreal.	Toronto.
Flour:—		
First patents, per bbl. in bags.....	10.30	10.20
Second patents, do.....	9.80	9.70
Strong bakers, do.....	9.60	9.50
30c per bbl. more in wood.		
Winter wheat flour—		
90 per cent per bag.....	4.70	.....
Do., in wood.....	.....	.....
per bbl.....	9.50	9.80
Cereals:—		
Cornmeal, yellow.....	.....	2.85 3.60
per bag, 9 lbs.....	.....	.....
Rolling oats, per bbl., in wood.....	7.05	7.05
Do., per 90 lb. bag.....	3.60	3.60
Rolling wheat, 160 lb. bbls.....	4.00	.....
Do., 98 lb. bag.....	3.60	3.75
Rye meal, 98 lb. bag.....	3.40	3.55
Barley meal, 98 lbs.....	4.75	.....
Feeds:—		
per ton.....	30.00	31.00
Shorts, per ton.....	33.00	34.00 36.00
Middlings, per ton.....	35.00	37.00 39.00
Feed Flour, per bag.....	.....	2.70 2.80
Mashie, pure grain grades, per ton.....	44.00	48.00
Do., mixed.....	38.00	42.00
Barley feed per ton.....	49.00	.....
Do., meal per ton.....	51.00	.....
Crushed oats.....	45.00	.....
Do., in 80 lb. bags, per ton.....	53.50	.....
Oatfeed, per ton.....	26.00	.....

WORLD'S AVAILABLE WHEAT SUPPLY.

The world's available wheat supply at the end of October totalled 276,715,000 bushels, an increase of 25,511,000 bushels over a month ago. Detailed stocks are given below. The figures for 1915 included stocks on the Continent, which are eliminated this year owing to the difficulty in securing accurate information:

Europe, afloat.....	40,320,000	45,160,000	38,980,000
Europe, store.....	22,080,000	19,180,000	36,800,000
Argentina.....	10,488,000	11,040,000	1,656,000
Australia.....	39,500,000	43,000,000	.....
United States.....	118,035,000	111,234,000	62,309,000
Canada.....	46,292,000	20,960,000	60,820,000

Total bushels.....276,715,000 251,204,000 200,506,000
(*—United Kingdom only.

RECEIPTS OF BUTTER, CHEESE AND EGGS.

The following table shows the receipts of butter, cheese and eggs in Montreal for the week ended November 18th, 1916, with comparisons:

	Butter, pkgs.	Cheese, boxes.	Eggs, cases.
Week ended Nov. 18, 1916.....	7,304	38,338	41,481
Week ended Nov. 11, 1916.....	10,394	59,078	42,046
Week ended Nov. 20, 1915.....	5,721	38,014	17,496
Total receipts May 1st to date, season 1916.....	464,134	2,127,440	580,127
Total receipts May 1st to date, season 1915.....	370,705	1,910,025	483,081

THE WEEK'S CHEESE SALES.

St. Paschal, Que., Nov. 14.—90 boxes at 22c.
 Campbellford, Ont., Nov. 14.—468 boxes at 24c.
 Stirling, Ont., Nov. 14.—585 boxes offered, of which 230 sold at 24 1/16c and the balance at 24 1/2c.
 Woodstock, Ont., Nov. 15.—665 boxes offered, 23c bid, no sales.
 Madoc, Ont., Nov. 15.—253 boxes at 24 1/16c.
 Brockville, Ont., Nov. 16.—1,607 boxes of which 607 sold at 25c.
 Cornwall, Ont., Nov. 17.—1,105 boxes, colored, 25c.
 Iroquois, Ont., Nov. 17.—309 boxes, 264 colored and 45 white, 25c.
 Pictou, Ont., Nov. 17.—450 boxes at 25 1/2c and 398 boxes at 25 1-16c.
 Victoriaville, Que., Nov. 17.—1,000 boxes, 23c.
 Perth, Ont., Nov. 17.—700 boxes, 24 1/2c.
 Belleville, Ont., Nov. 18.—603 boxes, 25c to 25 1-16c.
 St. Hyacinthe, Que., Nov. 18.—400 boxes, at 23 1/2c.
 London, Ont., Nov. 18.—732 boxes offered, 24c bid, no sales.

WINNIPEG GRAIN RECEIPTS.

The receipts of grain at Winnipeg for the week ended Nov. 11, 1916, compared with the corresponding week a year ago were as follows:

	Nov. 18, 1916.	Nov. 11, 1916.	Nov. 20, 1915.
No. 1 Northern	435	595	.....
No. 2 Northern	1,080	1,059	.....
No. 3 Northern	990	881	.....
No. 4 Northern	375	343	.....
No. 5 Northern	243	195	.....
No. 6 Northern	191	150	.....
Feed Wheat	334	279	.....
Rejected	115	90	.....
No. grades	451	482	.....
No. 4 Special	309	276	.....
No. 5 Special	283	230	.....
No. 6 Special	219	126	.....
Winter grades	0	9	.....
Totals	5,049	4,813	7,358
Oats	1,219	1,106	1,472
Barley	288	260	243
Flax	231	186	150

GRAIN AT THE HEAD OF LAKES.

Fort William, Nov. 18th, 1916.

Statement of stocks in store in terminal elevators at Fort William and Port Arthur, on November 17th, 1916, with receipts and shipments during the week.

Elevator.	Wheat.	Oats.	Barley.	Flax.
C. P. R.	1,346,803	598,864	121,869	.....
Empire	739,579	179,610	44,842	187,956
Consolidated	919,901	203,541	28,857	97,548
Ogilvie's	908,002	141,430	68,548	.....
Western	870,077	259,807	17,313	158,663
G. G. G. Co.	1,026,376	546,410	19,037	.....
Fort William	468,396	251,379	54,764	16,481
Eastern	743,015	269,155	19,496	.....
G. T. P.	1,876,481	1,130,647	100,682	59,342
Can. Nor.	2,177,043	835,542	338,969	88,434
Horn and Co.	242,614	84,633	41,511	129,634
Can. Govt.	878,348	265,690	81,561	134,188
Thunder Bay	556,159	345,050	53,245	47,671
Total	12,752,800	5,111,764	1,050,701	919,922
A Year Ago	17,932,173	3,903,262	557,764	529,985
Receipts	4,863,759	1,716,204	232,632	292,524
Ship. Lake	4,226,454	1,858,739	149,064	17,478
Ship. Rail	170,983	95,173	27,258	255
Stocks by Grade.				
Wheat.		Oats.		
One Hard	15,676			
One Nor.	820,416	1 C. W.	32,672	
Two Nor.	2,461,151	2 C. W.	2,324,686	
Three Nor.	3,041,772	3 C. W.	498,298	
No. Four	1,651,484	Ex. 1 Fd.	418,586	
Others	4,762,298	Others	1,837,521	
Total	12,752,800	Total	5,111,764	
Barley.		Flax.		
3 C. W.	152,781			
4 C. W.	459,249	1 N. W. C.	687,718	
Rejected	68,516	2 C. W.	193,511	
Feed	274,635	3 C. W.	22,007	
Others	95,518	Others	16,686	
Total	1,050,701	Total	919,922	

ROOT AND FODDER CROPS.

Hay a Record Crop—Potato Crop Generally Poor.

The Census and Statistics Office reports on the yield, quality and value of the root and fodder crops, stating that the total area this year under root and fodder crops, in Canada, consisting of potatoes, turnips, etc., hay and clover, alfalfa, fodder corn and sugar beets, amounts to about 8,980,000 acres, which is practically the same as in 1915; but the total is made up of an increase of about 100,000 acres under hay and clover, the total area of which is nearly 8 million acres, and a decrease for each of the other relatively smaller crops. In total value, at local prices, these crops amount for 1916 to \$249,882,000, as compared with \$229,508,000 for 1915. The yield of hay and clover this year is the record one of 14,799,000 tons, an average of 1.86 ton per acre, which is the highest yield on record for this crop in Canada. The average value per ton is \$11.50, as compared with over \$14 last year.

Potatoes are again upon the whole a poor crop, this result being due to unfavourable conditions in Quebec and Ontario, where the average yield per acre is for Quebec 131 bushels, as compared with 149 bushels last year, and for Ontario 61 bushels, as compared with 92 bushels. In the Maritime provinces the potato yield is good, being 206 bushels per acre for Prince Edward Island, 201 bushels per acre for Nova Scotia and 192 bushels per acre for New Brunswick. The average price per bushel for potatoes is 81 cents for Canada, 95 cents for Prince Edward Island, 89 cents for New Brunswick, 97 cents for Quebec and \$1.28 for Ontario. Fair yields of potatoes are recorded for the prairie provinces, the averages being between 170 and 177 bushels, with prices of 92 and 93 cents per bushel in Manitoba and Saskatchewan, and 84 cents in Alberta. In British Columbia the average yield per acre is 189 bushels and the price 70 cents per bushel. The quality of the tubers is between 89 and 95 per cent of the standard for the Maritime provinces over 90 per cent for Manitoba and Saskatchewan and 84 per cent for Alberta and British Columbia. For Quebec and Ontario the quality is 76 and 77 per cent.

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The Ames-Holden McCready Company, has just sold \$250,000 six per cent. first mortgage bonds to the Royal Securities and Hanson Bros. The issue is stated to be for the purpose of covering large purchases of leather made some time ago on a very favorable basis owing to the exceptional strength shown by the leather market during recent weeks.

The Canada Starch Co. Limited
 - Manufacturers of the Famous -
Edwardsburg Brands
 Works:
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MONTREAL
 Our Specialties for
 The West
"Crown Brand" Corn Syrup
 —AND—
"Silver Gloss" Laundry Starch

A. HARRY WOLFE

Hat and Cap Manufacturer

Few individual men have had a greater share in the equipment of the Canadian soldiers than has A. Harry Wolfe, who in his plant in the Unity Building, Montreal, manufactures and handles a large variety of military caps, badges, belts, pouches, leggings, rubber coats, etc. He has specialized on the highest grade of headgear equipment for military and civil purposes, his output including uniforms, liveries and caps for militia, naval, marine, railways, banks, theatres, office officials, messengers, police, fire and other officials.

Mr. Wolfe who came to Canada in 1890, being educated in the public schools at Toronto and serving in various capacities including law clerk, has alone worked up one of the biggest businesses of its kind in Canada. He has put at the heads of each of his manufacturing departments, experts from Great Britain and has made it a part of his business to insist on the highest quality in his output. As manufacturer of military caps and accoutrements for the Canadian Government he has won a prominent standing. He has himself served as Corporal and Sergeant in the Canadian militia, and is a member of various Montreal Clubs, including the Canadian, Liberal-Conservative, Y. M. H. A., M. A. A. A., Board of Trade, etc., and belongs to several societies including the I. O. B. B. (Mount Royal Lodge), etc.

Mr. Wolfe is now preparing to manufacture a high class line of civil cloth, hats and caps, made along the same style as the high grade products of Great Britain, and for this purpose he has engaged expert British workmen for the heads of the departments. A feature of this new line will be the selling direct to high grade retail trade. The same quality will be put into this new line that has been put into the military equipment produced by Mr. Wolfe.

An important feature of Montreal's manufacturing output, both military and civil, is the high grade of products made in the factory of A. Harry Wolfe. The factory has an important share in equipping the Canadian militia for home and overseas service.

NEW SHIPPING MERGER.

The James Moss & Co., Ltd., have been taken over by the group of steamship companies of which Sir Owen Philipps is the head. The Moss lines were long established in the Mediterranean, Black Sea and Far East services. The sale of these companies connects them with Elder, Dempster & Co., the Royal Mail Steam Packet Co. and subsidiary lines.

JAPAN TO COLONIZE BRAZIL.

Japan has entered into arrangement with Brazil for railroad building and colonization. Plans have been completed for Japanese-Brazilian line of steamships to begin business in February, each steamship being expected to bring to Brazil 900 Japanese settlers, who are to engage in agriculture.

ST. CATHARINES WELL.

These Mineral Springs are famous for their marvelous healing powers. If you have not heard of the celebrated St. Catharines Well consult your Encyclopaedia Britannica. These waters work wonders for rheumatism and will build up the worn out system in a remarkably short time. St. Catharines is situated on the main line of the Grand Trunk Railway and all information may be had on application to M. O. Dafoe, 122 St. James St., Montreal.

PICKING ON THE LETTER "E."

The opinion has been advanced that the letter "e" is the most unfortunate letter in the English alphabet, because it is always out of cash, forever in debt, never out of danger, and in hell all the time. It is fortunate in that it is never in war and always in peace. It is the beginning of existence, the commencement of ease and the end of trouble. Without it there would be no meat, no life and no heaven. It is the centre of honesty, and makes love perfect. It also starts off in error, and printing, publishing, typography and lithography can get along without it, although it is necessary in electrotyping, engraving and typefounding. It is the beginning and the end of editorial existence. It's never in Dixon, but Graphite cannot be printed without it.—Ideal Power.

An issue of \$180,000, thirty-year, 6% bonds of the Catholic school municipality of St. Jean de la Croix has been purchased by the firm of Rene T. Leclerc. This municipality covers Laurier Ward.

STEEL RAILS ADVANCE.

Steel rails were advanced \$5 a ton by the United States Steel Corp. last week. This latest advance, which was followed by independent concerns, brings the price of open-hearth rails up to \$40 a ton and Bessemer rails up to \$38 a ton, from \$30 and \$28 a ton respectively last April. It is stated that what really prompted the mills to advance the price of rails at this time was to put a stop to the growing movement of railroads to place their 1918 rail needs under contract at this time.

This is the second advance announced in steel rail prices since 1901, in which year the United States Steel Corporation was formed. The highest level ever reached by steel rails was in 1867, when the average was \$166 a ton. In 1873 the average price was \$120.58 a ton; in 1880, \$67.52; 1883, \$37.75; 1885, \$28.52; 1887, \$37.08; 1890, \$31.78; 1893, \$28.12; 1894, \$24; 1898, \$17.62; 1899, \$28.12; 1900, \$32.29 and 1901, \$27.33.

THE WORLD'S TONNAGE.

Stevenson Taylor, president of American Society of Naval Architects and Marine Engineers, says that in five years preceding war there were launched in principal shipyards of world 2,740,000 tons of ships, of which Great Britain launched 60 per cent, Germany 12 per cent, United States 9 1/4 per cent, France 4 1/2 per cent, and all other countries 14 per cent. Normal tonnage of world in present year, he estimates at about 50,000,000, of which 5,000,000 has been destroyed, 12,000,000 tons commandeered by nations at war, and 4,400,000 tons interned in neutral countries, leaving available about 28,000,000 tons. He estimated that minimum merchant tonnage needed will be approximately 55,000,000 tons, to meet which demand there will approximately be 48,000,000 tons. High freights and high prices will continue and shipyards will be busy for some years to come, he says.

FRENCH ROADS TO RAISE RATES.

French railroads have asked permission to raise rates, both freight and passenger. Since beginning of war losses of state railroad have been 370,000,000 francs, while other roads have lost 790,000,000, and all indications are that next year they will be nearly double losses of last year.

GOVERNMENT BUYS WHEAT.

A Cleveland despatch last week stated that the Canadian government through a large shipper has arranged for ocean tonnage for 11,000,000 bushels of wheat to go forward by way of Buffalo. It is understood a large part of the vessel capacity that will take the grain from the head of the lakes to Buffalo was chartered early last week.

SOO CANAL TRAFFIC.

Freight traffic passing through American and Canadian canals of St. Mary's river totaled 11,919,012 tons in October, a new high record for the month and 361,161 tons greater than in October, 1915.



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MONTREAL TO LONDON
(Via Falmouth.)

From London. From Montreal
Nov. 4th..... **AUSONIA** Nov. 23rd.

CABIN AND THIRD CLASS.

For information apply **THE ROBERT REFORD Co., Limited**, General Agents, 20 Hospital Street. Steerage Branch: 23 St. Sacrament Street, Montreal.

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GLASGOW PASSENGER-FREIGHT SERVICE.

From Glasgow From Montreal
Nov. 4th **ATHENIA** Nov. 21st
For information apply local Agents or **THE ROBERT REFORD CO., Limited**, General Agents, 20 Hospital Street, Montreal.

Agricultural Production of West not Confined to Wheat Crops

Big Output of Various Field Crop in Four Province. Apples Orchards in Manitoba and Tobacco Plantations in British Columbia. Co-Operation in Marketing Between British Columbia Fruit Growers. Western Production Increasing in All Crops.

Agriculture in the western provinces is by no means confined to the growing of wheat. Every western province has increased its production in barley, peas, flax, corn, alfalfa, turnips and other field crops and these crops represent millions of dollars annually to the agriculturists of the four western provinces.

The oats production in one year shows 31,851,000 bushels in Manitoba, 61,816,000 bushels in Saskatchewan, 3,171,000 bushels in British Columbia, 57,076,000 bushels in Alberta. This is a total production of 154,000,000 bushels of oats, worth approximately \$80,000,000. It will be noticed that British Columbia contributed to this crop, with a gain of nearly one million bushels over the previous year.

The barley production of the west has continued to increase. One year's crop in Manitoba showed 9,828,000 bushels, in Saskatchewan, 4,901,000 bushels, in Alberta 4,806,000 bushels and in British Columbia 97,000 bushels, a total production in the four provinces of about 19,000,000 bushels with a value of around \$15,000,000. The barley production has had a varied series of crops, with gains one year and reduction the next, the reductions being due chiefly to less acreage being planted in this crop.

The west does not produce a big crop of rye, but there is enough produced to prove the possibilities of making this a successful crop in the western provinces. In 1914 the rye crop was 100,000 bushels in Manitoba, 54,000 bushels in Saskatchewan, 360,800 bushels in Alberta. Alberta was the leader in the rye crop in 1914 and 1915. The total crop for one year from the three prairie provinces was about 450,000 bushels valued at \$225,000.

In the production of peas and corn, the western provinces are increasing, and the crop for one year in peas shows the following totals: Manitoba, Saskatchewan and Alberta about 5,000 bushels each and British Columbia 41,000 bushels. The whole crop for the west would reach a value of about \$75,000. Bigger totals are shown in the corn crop, fodder corn in Manitoba reaching 72,000 bushels, in Saskatchewan 7,000 bushels, in Alberta 1,600 bushels, and in British Columbia 3,000 bushels, making a total of 83,600 bushels with a monetary value of about \$400,000.

The prairie provinces have substantially increased the flax production of Canada. The crops for one year show as follows, using 1914 as an example of an average crop. Manitoba, 338,000 bushels; Saskatchewan, 6,131,000 bushels; Alberta, 614,000 bushels. This made a total of nearly 7,000,000 bushels with a value of over \$7,000,000. These provinces all

showed a bigger flax production in 1915 than in 1914, but these figures give a fair indication of the flax industry in the west.

Potatoes are fast becoming one of the big crops of the west. There was a time when Prince Edward Island was noted as the "Spud Province" but the P. E. I. potatoes no longer hold the chief place on the produce markets. Manitoba in one year raised a potato crop of 3,172,000 bushels and Saskatchewan produced 4,085,000 bushels. Alberta in the same year produced 3,552,000 bushels and British Columbia produced 2,675,000 bushels. This made a one year production in the west of over 13,500,000 bushels with a value of around \$100,000,000. The 1915 potato crop in Saskatchewan and Alberta was exceptionally large and for the first time in many years the west last fall shipped potatoes to the markets of the east.

Turnips, mangolds, etc., make up an important item in the field crops of the western provinces. Manitoba produced in one year on an average of 1,679,000 bushels and Saskatchewan for three years averaged 3,211,000 bushels. Alberta has an average production of 1,951,000 bushels and British Columbia averages 1,511,000 bushels. This is a total of approximately 7,000,000 bushels with a value of over \$3,500,000.

The hay and clover cut of Manitoba averages 220,000 tons yearly and is worth \$2,054,000. Saskatchewan's hay crop averages 10,000 tons yearly and is worth \$607,000. Alberta has a hay crop which averages 304,000 tons (taking the average for 1910 to 1913, inclusive), and a value of \$2,547,000. British Columbia's hay crop averages 285,000 tons yearly and is worth to that province \$5,032,000. This is a total value of nearly \$10,000,000 for the hay crop of the four provinces. There are thousands of acres of land in the four provinces producing natural hay much of which is never cut and a great deal of which feeds the thousands of head of cattle which for 12 months in the year feed in the open in these provinces.

The alfalfa crop has been more or less of an experiment in the west, but its production has met with success. Manitoba's average crop of alfalfa is 7,000 tons, Saskatchewan total 2,200 tons (5,000 tons in 1914), and Alberta's average 19,000 tons. British Columbia has shown exceptionally large gains with a production averaging 25,000 tons. The total annual average production of alfalfa for the four provinces is 53,000 tons with a value of approximately \$570,000.

A feature of the agricultural production in recent

years is the participation of British Columbia in the field crop statistics. The prairie provinces have increased every department of field crop production and while wheat has played the most prominent part in the annual published crop news, wheat has by no means been the only field crop in which the west has been growing. Large tracts of land have been opened up in northern British Columbia, while every portion of the three prairie provinces has had increased crop production. Beans, sugar beets and other crops are also included in the big annual production which are increasing the wealth of the four western provinces.

The growing of sugar beets has only been attempted on a small scale, chiefly in Southern Alberta and in British Columbia. The growing of this crop has been a very successful and very profitable and there is likely to be an increase in this department of agricultural industry. A ready home market is available for the sugar beet produced in the western provinces.

A review of the field crop productions of the west shows a period of progress and a big addition to the wealth of the Dominion because of agricultural production.

The growing of tobacco has been among the features of agricultural production in British Columbia. The crops are said to have been successful and there have been substantial increases in the production, though the acreage under this crop is still very small in comparison with the other crops of the west. Statistics for the production of fruits in the West are not available for a better year than 1914. At that time Manitoba produced orchard fruits valued at \$7,116 and small fruits valued at \$14,000. Saskatchewan produced orchard fruit valued at \$127 and small fruits valued at \$3,828. Alberta's orchard fruits were worth \$101 and small fruits \$6,109. British Columbia's fruit production (even the prunes) was valued at \$1,022,576 and small fruits at \$1,128.

A surprising feature of the fruit industry of the west has been the establishing of orchards in the prairie, especially in Manitoba where apples and other fruits have been quite successfully grown. In British Columbia there has been increased production and a splendid cooperation between the growers which has resulted in better marketing facilities. The fruit growers societies of British Columbia have cooperated in marketing their fruits with the result that the industry in this province is in much better condition than in former years.

COMPARATIVE VALUE CANADIAN GRAIN CROP.

The following chart shows the comparative value of the grain crop of Canada alongside other big productions of America. The total grain crop of Canada for 1915 was valued at \$600,000,000.

Canada Grain Crop \$600,000,000

Bituminous coal production in U. S. in one year \$422,703,970

Copper production in U. S., one year . . . \$152,968,248

One year tobacco production in U. S. . . . \$101,411,000

Gold production in U. S., one year \$ 94,531,800

Silver production in U. S., one year . . . \$ 40,067,700

Zinc production in U. S., one year \$ 35,028,636

Irrigation Development in Western Canada

Irrigation in Alberta First Taken into Consideration in the Dry Year of 1892. Big Project Undertaken Which Reclaimed Over 3,000,000 Acres of Land. One of Biggest Irrigation Projects in the World.

By GILBERT REDD.

No other phase of the development of Western Canada is so interesting in itself, or is fraught with such possibilities for the future, as is the irrigation work being carried on at present, mainly in Southern Alberta. It is well to say "at present" because, in the opinion of competent authorities, the day is coming when the irrigation areas of Western Canada will be very greatly extended; indeed, they will be limited only by the amount of water available and the topographical possibilities of the country. This statement can be made conclusively, notwithstanding a general supposition that irrigation is something of an experiment and even a fad.

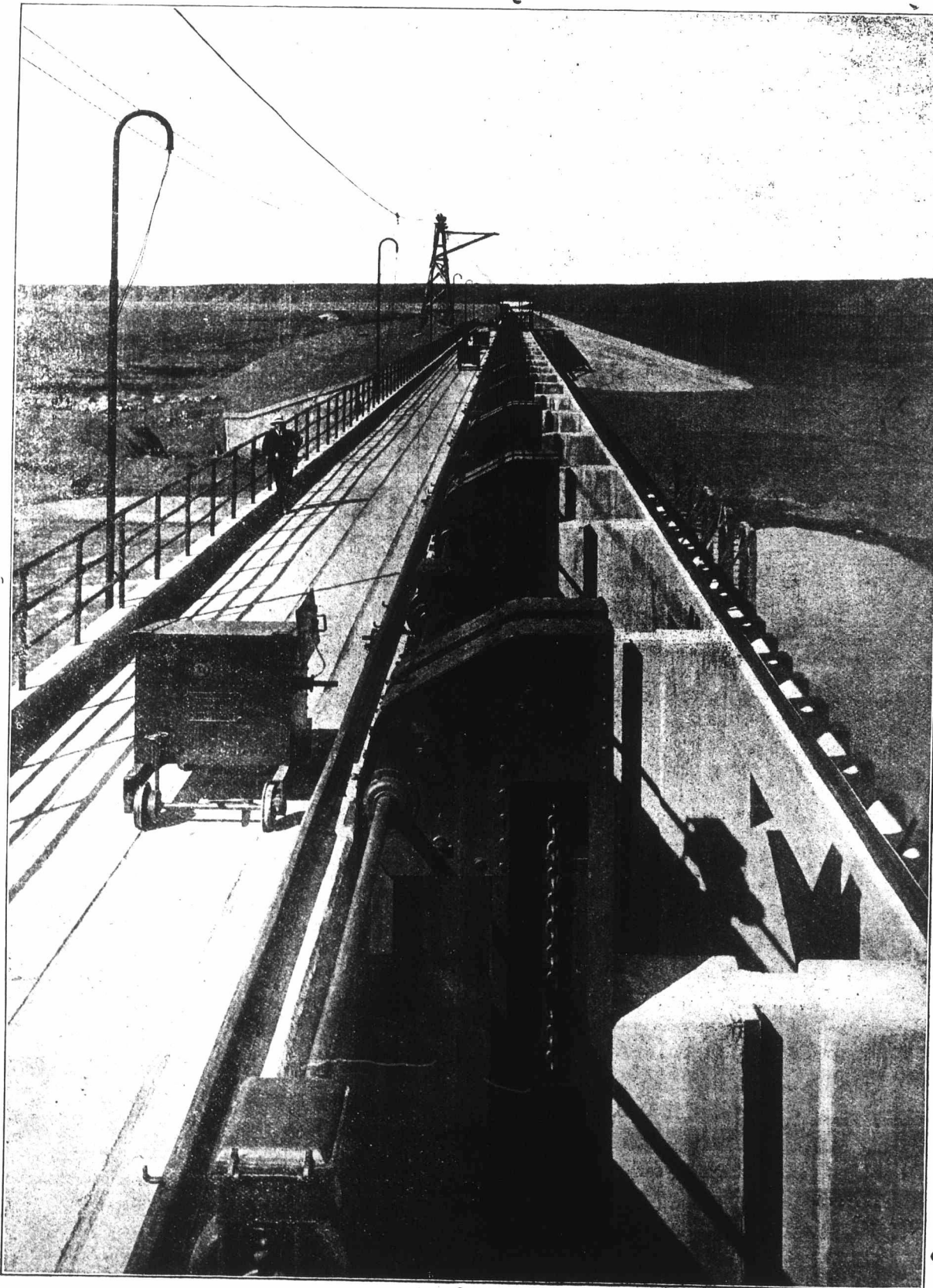
This supposition arises from the fact that Canada and the United States have been settled in the first place by farmers emigrating from countries where irrigation was not practised. These farmers have never seen or known the advantages of irrigation, and there are few pursuits more conservative than agriculture. It is the oldest of all industries, and practices which have been followed in the past are departed from only after the most conclusive evi-

dence that they are obsolete. The farmer from such humid countries as the British Isles, France, the Netherlands, or Northern Europe, where his ancestors for generations depended on the generosity of the weather man, has never seriously thought of the possibility of controlling the moisture on his fields with the same scientific accuracy as he controls the temperature in his house. When he does get such a conception he has gone more than half way towards becoming an irrigation farmer. Had this continent been settled in the first place by farmers from arid or semi-arid countries, the history of irrigation would already have occupied a very much larger place in the country's development.

Although agriculture is the oldest industry, irrigation is almost as old. Sir William Wilcocks, one of the most distinguished living irrigation engineers, a student of irrigation systems in all parts of the world, and the designer of the most notable irrigation structure of modern times, the Assuan Dam, has made the statement that the application of

water by artificial means to benefit agricultural operations can be traced as far back as the Garden of Eden. It is at any rate certain that where—according to some historians—civilization first arose, in the valley of the Euphrates and Tigris rivers in Asia Minor, was once a densely populated region in a state of very high cultivation; and where and when Nebuchadnezzar set up his golden image were fertile plains traversed in every direction by a network of canals and ditches. Chaldea's rich irrigated lands were indeed the secret of her wealth, and the reason why she was so often the prey of envious neighboring nations. It was irrigation, say some archeologists, that made the Land of Goshen such a fruitful land in Joseph's time, so that when there was drought and famine elsewhere all peoples came to Egypt to buy corn.

Even on the American continent the history of irrigation dates back to prehistoric times. There are evidences of prehistoric irrigation systems in New Mexico, Arizona and south-western Colorado. Some



VIEW OF BASSANO, ALBERTA, DAM. (Courtesy C. P. R.)

of these systems were on an extensive scale, with individual ditches twenty miles or more in length and canals so well constructed that their bases have been used by modern ditch builders. At the present date there are in the United States, irrigation systems representing an expenditure of between \$400,000,000 and \$500,000,000 and the spread of the irrigation idea may be gauged from the fact that 20 years ago the total investment in irrigation enterprises in the United States was less than \$30,000,000.

In Canada, irrigation development has been almost entirely associated with the Western Provinces, more particularly Alberta and British Columbia, although irrigation is practised extensively and with much success by the settlers of south-western Saskatchewan.

The purpose of the irrigation enterprises of British Columbia has been largely fruit raising with the result that although irrigation plays a large part in the agricultural life of that province, the areas affected are not so great as in Alberta where conditions favor farming on a more extensive scale. Alberta may be said to be the banner irrigation province of the Dominion and it is not altogether a coincidence that Alberta is also the most prolific producer per acre of any of the Canadian provinces.

Irrigation in Southern Alberta may be said to date back to 1892 when a series of dry years turned the attention of settlers and business men to the possibilities of ensuring the country's prosperity against drought by making use of the many splendid streams which come down out of the glacier fields in the Rocky Mountains. Surveys showed that certain extensive areas offered special advantages for irrigation; an area of about 150,000 acres in the Lethbridge district which could be supplied from St. Mary's River and an area of about 3,000,000 acres lying between Calgary and Medicine Hat along the main line of the Canadian Pacific Railway, and bounded for the most part by the Bow River on the south and the Red Deer River on the north. Both these areas have been developed as irrigation projects and now constitute the great irrigation enterprise of the Canadian Pacific Railway Company. Water for the chief irrigation project, which is the Block lying east of Calgary, is supplied by the Bow River. For the Western Section of the Block the water is diverted from the river at Calgary; for the Eastern Section at Bassano. Owing to the natural slope of the country, no very extensive headworks were required at Calgary. The water is simply diverted from the river by means of headgates and a dam which can be used in time of small flow, and quickly makes its way to the level of the prairies through a main canal 17 miles in length. This main canal delivers water into a large reservoir from which it is distributed by means of three secondary canals having a combined length of about 250 miles. From these secondary canals there again branch out over 1,300 miles of distributing ditches which deliver the water at the highest available point on the boundary of each irrigated farm. From this point the farmer takes charge of the water himself, distributing it over his fields by means of small ditches, in the planning of which he may have the advice of the railway company's engineers without cost.

The works at Bassano, where the water is diverted for the Eastern Section, are of an extensive nature. It was necessary at this point to raise the level of the water in the river about 46 feet, and for this purpose a reinforced concrete dam was built across the river bed proper. This structure is 720 feet in length between abutments, with a maxi-

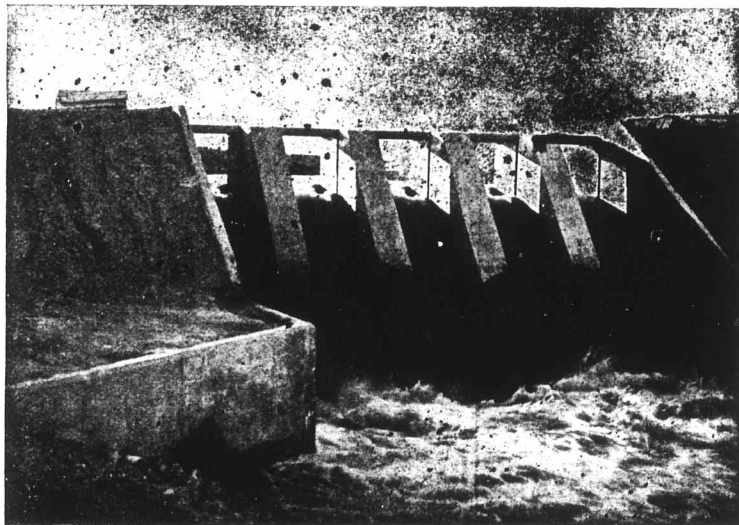
mum height of 40 feet to the overflow crest, above which 11 feet of water are retained by 24 sluice gates operated by electricity. From the end of the concrete structure an earthen embankment 7,000 feet long stretches across the river valley. This embankment contains about one million cubic yards of earth; it is 350 feet in width at the base and is faced with concrete on the upstream side. By means of this dam and embankment the water in the river has been raised to a height at which it is possible to carry it off through a main canal for a distance of five miles, where it is subdivided into two branches and continues its course by means of secondary canals and distributing ditches on to the fields of the farmer. The southern branch discharges part of its water into a reservoir formed in low-lying lands south of Brooks, Alberta. This reservoir has been named Lake Newell and has a storage capacity of about 185,000 acre feet; that is, sufficient water to cover 185,000 acres one foot deep. Another important engineering feature is a concrete flume two miles in length, crossing a depression a short distance east of Brooks.

The engineering features have been thus briefly outlined as being of public interest, but the agriculturist and business man is doubtless more concerned in the practical results of the irrigation than in the engineering contrivances which make the water available. In this connection it can now be said that irrigation has been sufficiently tested out in Southern Alberta to leave no possible question as to its success and the enormous possibilities which arise out of its practise. It is true that Southern Alberta is not an arid country as the term is understood in some lands; it has an average rainfall ranging from 10 to 15 inches, which makes practicable dry farming methods over much of the area in ordinary seasons. Occasionally there are years of comparatively heavy rainfall and it is such years which leave no question concerning the future of irrigation, because, with sufficient rainfall, the prairies of Southern Alberta spring into a rich productiveness which perhaps cannot be equalled elsewhere on the continent. This was well evidenced in 1915 (a wet year) when, according to the report of the Department of Agriculture of Alberta, the average wheat crop of the whole province was 36 bushels to the acre and when in Southern Alberta many fields and even whole farms averaged 50 bushels of wheat to the acre and more. This is sufficient evidence of what Alberta soil will produce when there is no

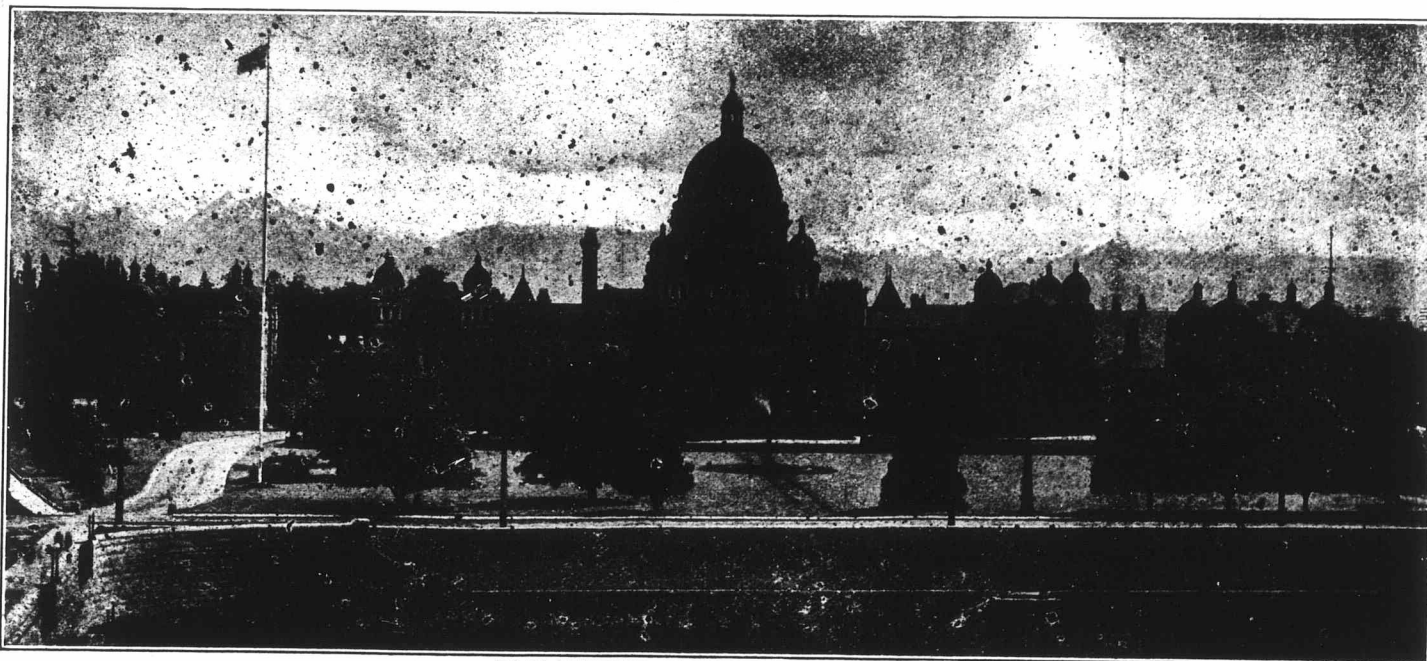
shortage of water, and the irrigation farmer enjoys these conditions every year.

All crops which may be grown in humid countries or under dry farming conditions can be grown with greater success under irrigation. Extensive experiments at the Dominion Government Experimental Station at Lethbridge, Alberta, shows that every cereal crop is benefitted by irrigation. Experiments over six years showed that irrigation increases the yield of wheat by an average of 26 bushels per acre; oats by 59 bushels; barley by 34 bushels and potatoes by 233 bushels per acre. Garden vegetables, field roots, corn and peas, showed increases ranging from 73 to 200 per cent when cultivated under irrigation. Tree planting is attended with great success on account of the ample moisture available and already some of the older irrigation districts of Alberta have lost all of their original barrenness and present a park-like appearance, being marked out with hedges, wind-breaks and groves. These wind-breaks make possible the raising of small fruits with pronounced success and even apples are now being grown to an extent sufficient to justify the prediction that they will become a commercial crop.

The most important crop under irrigation is, however, alfalfa. This crop has the peculiar quality of enriching rather than impoverishing the land on which it grows. It is the king of fodder crops, having a food value equal to its own weight in bran. It is very cheaply produced, as when once sown it grows again from the same roots year after year, and two or three cuttings are taken each season. There are already alfalfa fields in Southern Alberta which have yielded over 40 crops from the original sowing. After the crop has been started no further seed and practically no cultivation are required; there is no outlay for binder twine or threshing, and as the land will produce from three to five tons per acre per year, at a value of from \$10 to \$12 per ton, the profit is apparent. More alfalfa is now grown in the irrigated areas of Southern Alberta than in all the rest of Western Canada combined. In the past alfalfa farmers have found ready market for all the alfalfa they could produce, and this market will probably continue, but the ideal condition is to feed the alfalfa on the farm to dairy cows, hogs, sheep and poultry, and this condition is being rapidly brought about. There is no question that in the course of time the irrigated areas of Southern Alberta will be the most densely populated and most productive farming and dairying districts in Canada.



Sluice Gate of one of lower arms of the Bassano Irrigation Project



PARLIAMENT BUILDINGS, VICTORIA, B. C.

Combined Bank Clearings of Eight Western Cities Shows Five Months Increase over \$96,000,000

All the Largest Cities of Manitoba, Saskatchewan, Alberta and British Columbia Show Substantial Increases in 1916 Bank Clearings. Bank Statistics from Winnipeg to Vancouver Show Bigger Money Movement.

Some remarkable increases have been shown in the bank clearings of the western cities, for the first six months of the present year over the corresponding period of last year. The 1915 twelve months clearings were increases also over the previous year. Practically every city in the four provinces has shared in the increases, an indication of a much bigger money movement in the trade circles of these provinces.

Winnipeg for the twelve months of 1915 had clearings which were over \$235,000,000 increase over the twelve months of 1914. For the first five months of this year Winnipeg's total clearings were approximately \$200,000,000 larger than for the corresponding five months of last year. Winnipeg clearings for the first five months of this year totalled \$692,629,566 as compared with \$492,064,935 for the corresponding five months of 1915.

Regina's bank clearings for the first five months of the present year totalled \$38,011,118 as compared with \$27,085,755 for the corresponding five months of last year. This was an increase of approximately \$10,000,000 in five months. Saskatoon's bank clearings for the same period this year totalled \$22,376,016, a five million dollar increase over the first five months of 1915 when they totalled \$17,590,837. Equally creditable is the showing for Moose Jaw which for the first five months of this year had clearings totalling \$18,205,125, nearly a five million dollar increase over last year's clearings for the same

period which were \$14,212,514. These three Saskatchewan cities combined have increased their bank clearings the first five months of this year by twenty million dollars.

Calgary increased its clearings the first five months this year by approximately twenty million dollars, the figures standing: 1915, \$80,558,497; 1916, \$61,151,489.

Edmonton's clearings for the first five months of this year totalled \$44,057,701 as compared with \$42,464,880 for the corresponding period of last year, an increase of nearly two million dollars.

There are numerous smaller cities in the prairie provinces, including Swift Current, Weyburn and Prince Albert in Saskatchewan; Brandon and Portage in Manitoba; and Lethbridge and Medicine Hat in Alberta, all of which have shown increased business in industrial and banking returns, for the first half of 1916 over the same period of 1915.

There have also been marked increases in the bank clearings of the British Columbia cities. Vancouver increased its bank clearings for the five months of this year by nearly six million dollars, the figures showing \$116,083,060 for 1915 and \$110,456,356 for 1916—first five months. This is an increase of over half a million dollars a month in the Vancouver bank clearings. Victoria's clearings for the same period totalled \$29,856,914. British Columbia also has numerous smaller cities which have shown increased figures this year, these including Nanaimo, Nelson and New Westminster.

Taking at random the month of May, as an indication of one month's increases for the present year, we find the following figures:

City.	May Clearings.		Increase.
	1916.	1915.	
Winnipeg.	\$169,187,263	\$92,622,141	\$76,565,122
Vancouver	26,080,473	22,669,043	3,411,430
Calgary	18,585,568	11,976,562	6,611,006
Edmonton.	9,274,539	7,770,732	1,503,807
Regina	8,413,335	5,915,020	2,498,315
Victoria	6,655,310	6,156,906	498,404
Saskatoon.	4,842,664	3,073,901	1,768,763
Moose Jaw	3,730,978	2,476,596	1,254,382

The combined increase for five months in the bank clearings of these eight cities, scattered throughout the four western provinces, was over \$96,000,000 or an average for each month of \$19,200,000. At this rate, if it keeps up until the end of the year, these eight leading western cities will increase their bank clearings by approximately \$220,000,000 over 1915. The west is starting all over again to produce record productions and record figures in its trade and commerce.

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Canadian Grain Crop 1915 Worth Over \$600,000,000

Many Estimates Give Total Grain Crop of 10,194,609,000. Wheat Yield Worth Over \$300,000,000. Canada in Comparison With Other Countries Shows Enormous Increases. Fast Becoming Granary of the Empire

Canada's total grain crop for 1915 totalled 10,194,609,250 bushels, with a value of \$800,000,000 according to figures published recently. More conservative figures place the grain crop value for 1915 at \$600,000,000. It is interesting to note that the grain crop of Canada is worth more than the whole metallic production of the United States, as is shown elsewhere in charts in these issues.

The big 1915 grain crop of Canada was gathered in from less than 10 per cent of the arable land of the Dominion. This means that it would be possible to grow in Canada a grain crop worth \$8,000,000,000. The total tilled area in Canada in 1915 was 37,263,000 acres.

The wheat yield of Canada last year was 376,303,600 bushels with a value of \$312,569,400. This was an increase of 215,023,600 bushels over 1914. The average yield per acre last year was 28.98 bushels as compared with 15.67 bushels for the previous year.

Canada is fast becoming one of the most important granaries of the world as is shown in comparison with one year's production in the following figures; wheat production:

	Bushels
British India	312,032,000
France	319,667,000
Italy	169,442,000
Argentina	113,903,000
Australia	106,600,000
Germany	145,944,000

Canada produces more wheat in proportion to her population than any country in the world and is fast going ahead of British India as the great granary of the British Empire. Canada's exportable

wheat and flour from the 1915 harvest is estimated at a value of \$200,000,000 and the Dominion now has approximately 545 flour mills, with a daily capacity exceeding 111,865 barrels.

But large as was the 1915 wheat crop it was not in number of bushels Canada's biggest grain crop, it being exceeded by oats which gave a yield of 520,103,000 bushels with a value of \$70,894,700. Though the oat crop in number of bushels exceeded the wheat crop by a big margin, the cash value of the wheat crop was the greater. Canada's oat crop in 1915 showed a gain over the 1914 oat crop of over 200,000,000 as shown in the following figures:

	Bushels
1915 oat crop	520,103,000
1914 oat crop	313,078,000

Increase 207,025,000

There were other grain crops which also helped to swell the 1915 yield and which are among the important annual productions of the Dominion. For example the barley crop of Canada is bigger than the wheat crop of Roumania and there are other equally creditable comparisons which can be made. The many crops of the Dominion in one year are so varied, that it is practically impossible to have a total crop failure. The 1915 productions showed the following figures in addition to the wheat and oat crops already referred to:

Barley	53,331,300 bushels.	Value \$26,704,700
Rye	2,394,100 bushels.	Value 1,899,000
Peas	3,478,850 bushels.	Value 5,730,700

Up to a few years ago Canada's most formidable rivals in the wheat production were the Argentine—in South America, and British India. The Cana-

dian production has so increased that it has now passed the yield of British India and has almost equalled the yield of India and the Argentine combined. The increase in the wheat production has been much greater proportionately than the increase in population, thus making possible big increase in wheat for exporting, since the home consumption has not increased in proportion to the home production. India and the Argentine both export wheat for other countries, but the demand for Canadian hard wheat has been growing, not only in Europe but also in the United States.

With only a tenth of the arable land in cultivation, Canada can increase its wheat and other grain output to ten times the 1915 production. Such a production would make it possible for the Dominion to raise as much grain as all the other countries of the world combined, with the exception of the United States. The wheat production of India and of South America has been increasing, but these countries are further away from the European markets than Canada. The wheat fields of Canada have been brought into close touch with the Atlantic and Pacific coasts by the increased railway facilities of the western provinces and the Dominion is so well equipped with lake, river, canal and rail transportation facilities that record grain crops are handled rapidly, the annual fall movement being also assisted by the transportation lines of United States as well as through Canada.

The accompanying chart gives a good idea of the importance of Canada as a wheat country compared with other wheat growing centres of the world. Figures for 1914 are used for Foreign countries, some of which have shown reductions since the war.

CANADIAN WHEAT CROP. COMPARATIVE YIELD.

Canada	376,000,000 Bushels
France	319,667,000 Bushels
British India	312,000,000 Bushels
Italy	169,442,000 Bushels
Germany	145,944,000 Bushels
Argentina	113,904,000 Bushels
Australia	106,600,000 Bushels
Roumania	49,270,000 Bushels

CANADA 376,000,000 Bushels.

France 319,667,000 Bushels.

British India 312,000,000 Bushels.

Italy 169,442,000 Bushels.

Germany 145,944,000 Bushels.

Argentina 113,904,000 Bushels.

Australia 106,600,000 Bushels

Roumania 49,270,000 Bushels.

THE ROYAL BANK OF CANADA

Capital Authorized \$25,000,000
Capital Paid Up \$12,000,000

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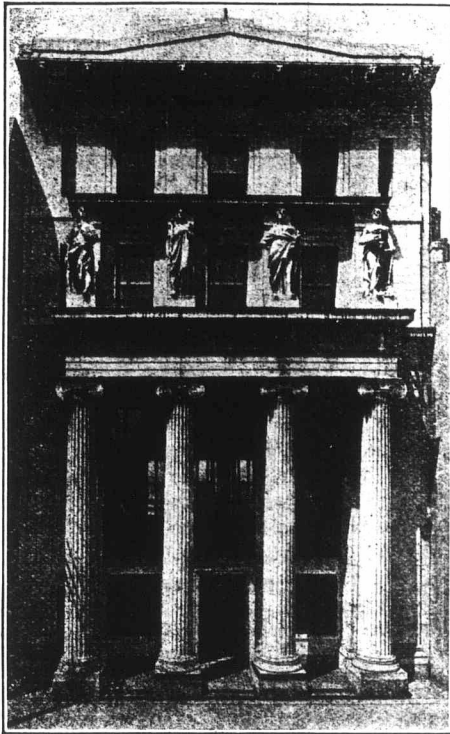
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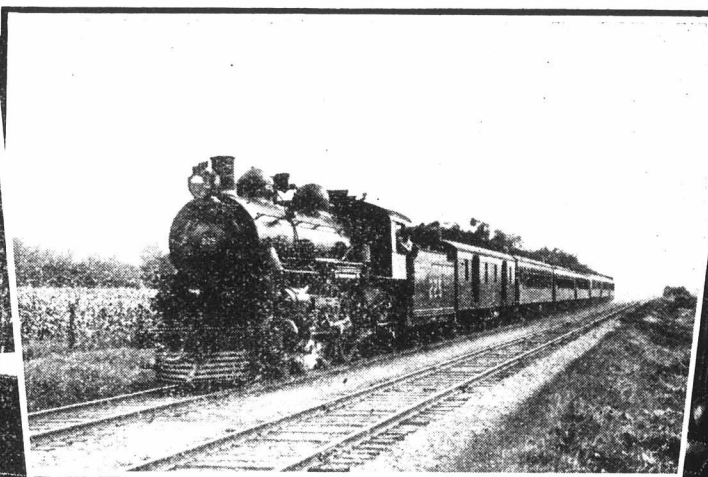
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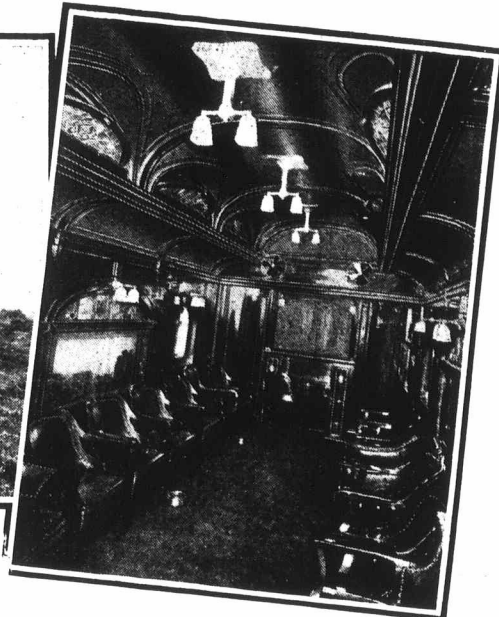
Is the pioneer railway of Canada and reaches all important centres of Eastern Canada, the New England States and State of Michigan. Fast limited trains are operated between Quebec, Montreal, Portland, Boston and New York to Chicago where connection is made for all points in Western Canada, the Western and Southern States.



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CONNECTING AT WINNIPEG FOR ALL WESTERN CANADA AND PACIFIC COAST POINTS. Time Table and all information from any Grand Trunk, Canadian Government Railways, or T. & N. O. Railway Agent.

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Accommodation, 300 Rooms.
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Ogilvie's "ROYAL HOUSEHOLD" is the "cream" of Canada's choicest wheat, milled by the Company which has made Canadian flour renowned throughout the Empire.

Ogilvie's "ROYAL HOUSEHOLD," is not a "specialty" flour. It is equally good for all baking--- for Bread, Rolls and Biscuits---Cakes, Pies and Pastry. Insist on having Ogilvie's "ROYAL HOUSEHOLD."

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DAILY MILL CAPACITY	- - -	19,000 BARRELS
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THE LARGEST MILLERS IN THE BRITISH EMPIRE

Big Dairying Industries in the Four Western Provinces

Total Cheese and Butter Production of Manitoba, Saskatchewan, Alberta and British Columbia Exceeds a Value of \$10,000,000. Increases in Urban Population Create Increased Demand for Dairy Products. Statistics Show Creditable Production for the Four Provinces

The dairy industry in Manitoba, Saskatchewan, Alberta and British Columbia now has a combined cheese and butter output of over 50,000,000 pounds with a value exceeding \$10,000,000. The output of butter and cheese in the four provinces in 1910 was 40,322,965 pounds with a total value of \$9,552,497. These totals included the production of home-made butter and cheese.

The dairy industry of the western provinces is still in its infancy. Of the above figures not more than twenty per cent of the products were from dairy industries, the balance being home-made production. In 1910 there were 133 dairy industries in the four provinces, with a butter and cheese output of 6,951,595 pounds valued at \$1,847,886. This was a big increase over 1907 and 1900.

The five years since 1910 have witnessed bigger increases in the dairy industries of the western provinces than were witnessed in the previous five years, this being especially true in Manitoba, Alberta and Saskatchewan. British Columbia has also increased its dairy production, but this province is still a heavy importer of dairy products.

Manitoba Dairying.

In 1910 there were 42 dairy factories and creameries in Manitoba which produced 694,712 pounds of cheese valued at \$81,103 and 2,050,487 pounds of butter valued at \$511,972. These were increases of

approximately 75 per cent over the production of 1907 and a similar increase has taken place since 1910. In the same year there was in Manitoba a home-made butter production of 10,937,864 pounds worth \$2,571,143 and 327,289 pounds of home-made cheese valued at \$32,361.

The growth of the dairy industry including home-made products in Manitoba is shown in the table which follows. Since the last census of 1910 there has been a big increase in the industry throughout the rural communities and in the cities of Winnipeg and Brandon:

Year.	Cheese		Butter	
	Output Factory and Creamery	Home-Made	Output Factory and Creamery	Home-Made
	Lbs.	Lbs.	Lbs.	Lbs.
1900 ..	1,289,413	.....	1,557,010	8,676,661
1907 ..	1,266,591	.....	1,561,398	.....
1910 ..	694,712	327,289	2,050,487	10,937,864

Saskatchewan Dairying.

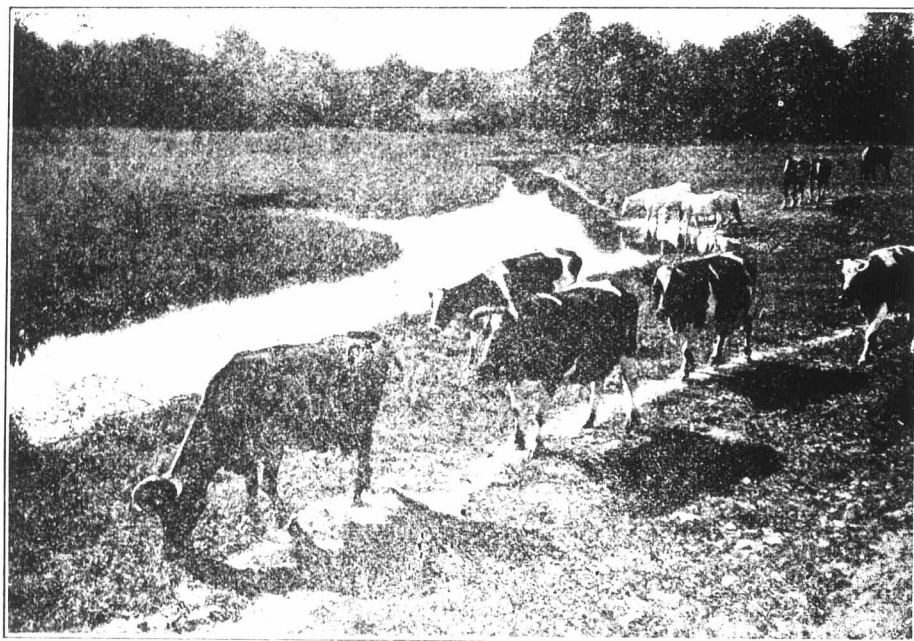
The dairy industries of Saskatchewan have had a remarkable growth, due largely to the increase in live stock ranching and to the increasing population of the many urban centres. There are several cities in Saskatchewan which have created a big home demand for dairy products, these cities including Regina, Moose Jaw and Saskatoon, each of them

with a population exceeding 25,000, Prince Albert, Swift Current, North and South Battleford and Weyburn.

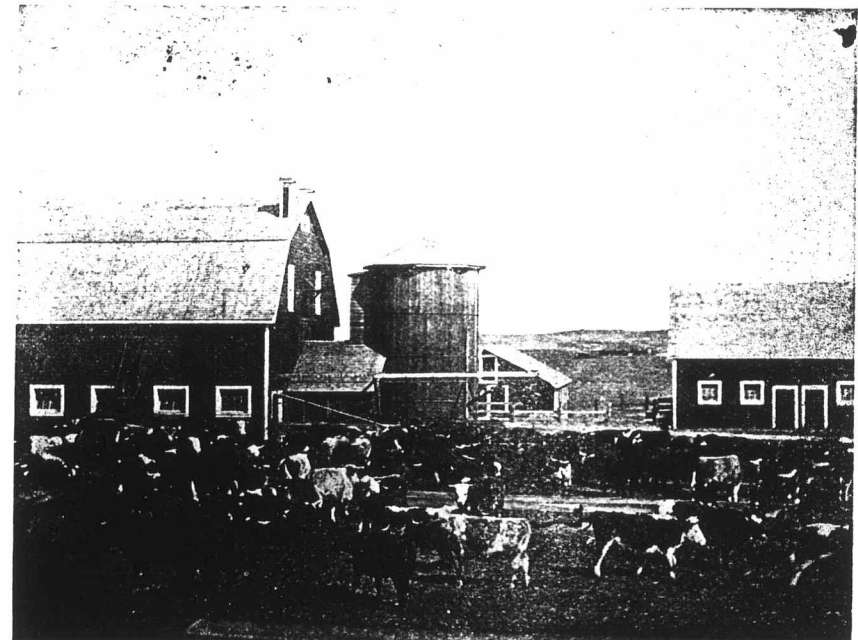
These cities all have established within their limits modern and well equipped dairies, which provide a ready market for the milk and cream, butter and cheese produced by the rural communities. In Southern, Central and Northern Saskatchewan there has been a big increase in live stock ranching and a consequent increase in the dairy production. Some idea of the increase in the dairy products of this province is shown in the following table. An allowance can be made for a bigger increase in dairy products for the five years since 1910 than for the previous five year period:

Year.	Cheese		Butter	
	Output Factory and Creamery	Home-Made	Output Factory and Creamery	Home-Made
	Lbs.	Lbs.	Lbs.	Lbs.
1900 ..	.....	.....	339,014	2,271,455
1907 ..	15,000	.....	132,803	.....
1910 ..	26,730	27,730	1,548,696	12,053,201

It will be noticed that from 1900 to 1910 the home-made butter output in Saskatchewan increased from 2,271,455 pounds to over 12,000,000 pounds while in the period from 1907 to 1910 the creamery butter output increased from 132,803 to 1,548,696 pounds.



NEAR VICTORIA ON VANCOUVER ISLAND



FAMILIAR BARN YARD SCENE IN ALBERTA

Training Canadian Aviators for Service at the Front



A CLASS AT THE CURTISS AVIATION SCHOOL, TORONTO.

Reading from left to right the names are: Pilot H. G. Webster, Pilot Webber, Pilot G. A. McLean; R. P. Abbott, Carleton Place, Ont.; G. Eckhardt, Vancouver, B.C.; W. Bryans, Toronto, Ont.; A. M. Walton, Toronto, Ont.; N. D. Hall, Victoria, B.C.; R. McDonald, Antigonish, N.S.; J. A. Morrell, Toronto, Ont.; H. H. Booth, Toronto, Ont.; A. R. Knight, Collingwood, Ont.; L. H. Briggs (Mechanic); A. Hunter (Mechanic); A. H. Loft, St. Marys, Ont.; F. Jenckes, Sherbrooke, Que.; J. King (Mechanic); H. Woollatt, Walkerville, Ont.; A. C. Reid, Winnipeg; S. E. Ellis, Montreal; F. R. Johnson, Westmount; R. Marshall, Toronto; J. P. Hales, Guelph; W. C. Crerar, Hamilton; O. J. Gagnier, Montreal; J. R. Allan, Westmount; S. McCrudden, Toronto; R. A. Blyth, Toronto; H. M. Pitton, Winnipeg. The machine which forms the background is a Curtiss "JN" model, manufactured at the factory in Toronto. It has a dual control for instructional purposes.

Coincident with building aeroplanes and parts for the British War Office and Admiralty, Curtiss Aeroplanes & Motors, Limited, of 20 Strachan Avenue, Toronto, have, since the spring of 1915, been actively engaged in preparing many young Canadians, similar to those who figure in the illustration above, for air service at the front. The Land school has been maintained at Long Branch Rifle Ranges, west of Toronto, and the Water school on the Island. Last year instruction was given to three hundred men and there is every indication that an equal number will be dealt with this year.

The production of machines for war service has been steadily increasing and the factory is on a permanent basis. It is expected that in the course of time flying will be recognized as the premier sport and that many individuals will own their machines. This development will doubtless be accelerated when the Canadian Government has established the air service as a permanent institution which they must do if they wish to keep their military and naval forces up to date.



Advertising Value of N.C.R. Receipts

Your best "prospects" are your present customers.

They prefer to trade with you, or they would not come to your store.

Put in a National Cash Register that prints advertisements on receipt or sales-slips.

Use this valuable space to announce each "special" that you want to feature.

Your "ad" on the back of the N.C.R. receipts is the cheapest and most effective form of direct-appeal advertising. It goes into the customer's hand when she is in your store figuring out her wants.

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Please give me more
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Name

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Remarks

Alberta Dairying.

Fifteen years ago one year's butter and cheese output from the factories and dairies of Alberta were worth altogether about \$85,000 while the home-made output of these products was worth about four times that amount. The rapid growth of the population in a number of the urban cities created a demand for dairy products which for a year or two it was almost impossible to supply without importation from other provinces. The rapid growth of Calgary to a city of approximately 90,000 population, with Edmonton less than 300 miles away with a population increased to over 75,000, not to mention the numerous smaller cities including Medicine Hat and Lethbridge with from 10,000 to 15,000 each, and Macleod, Wetaskwin, Camrose and other centres with from 2,000 to 5,000 each, caused an urban market for dairy products which demanded a big increase in the production.

In the 1910 census, the last official published census of the Government, Alberta's dairy production was shown to have made enormous gains. In that year the home-made butter production was over 7,600,000 pounds and the home-made cheese production was over 140,000 pounds. The butter output from the Alberta creameries was 2,149,121 pounds in 1910 and the cheese production from the creameries was 193,479 pounds.

The following table shows in brief, some of the progress in dairying in the province of Alberta. The increase in the output has been very great since the publishing of the 1910 census and the figures for 1915 will show increases proportionately large.

Year.	Cheese Output		Butter Output	
	Factory and Creamery	Home-Made	Factory and Creamery	Home-made
	Lbs.	Lbs.	Lbs.	Lbs.
1900	27,693	.....	407,970	1,265,262
1907	197,911	.....	1,507,697	.....
1910	193,479	141,964	2,149,121	7,689,402

In 1910 the total butter output of Alberta had reached over 10,000,000 pounds and a fair estimate of the 1915 output would be placed at 15,000,000 pounds. A large number of new settlements in Northern Alberta have added to the output of the

provincial dairy statistics and there have been good increases also in the production in Southern Alberta.

British Columbia Dairying.

On account of the large importations of New Zealand butter to or through British Columbia, a general impression has been created that the dairying industries of the province were not progressing. The statistics, however, show that there have been substantial increases in dairy products in the past ten or fifteen years, though not sufficiently large to fill the increase in the home demand. At the last official census British Columbia had a rural population of 188,796 and an urban population of 203,684, being the only western province with a bigger urban than rural population. Further, unlike the other provinces of the west, the rural population of British Columbia was not entirely devoted to agriculture, there being a considerable rural population devoted to mining, lumbering and other pursuits. The dairy production in butter and cheese has been on the increase since the commencement of the war. The increases for the last published census show as follows:

Year.	Cheese Output		Butter Output	
	Factory and Creamery	Home-Made	Factory and Creamery	Home-made
	Lbs.	Lbs.	Lbs.	Lbs.
1900	.....	.....	395,808	1,092,555
1907	90,400	.....	1,283,797	.....
1910	.....	7,483	1,206,202	1,268,605

The 1910 census showed that British Columbia produced in the one year over 2,400,000 pounds of butter, divided about equally between home and dairy products are chiefly in cheese, the value of these exports in 1914-15 exceeding \$22,000,000.

The production of milk and cream would materially increase the value of the dairy products of these four provinces, but owing to the ever changing amounts of such production, it is difficult to estimate the milk and cream production of these provinces. The quantity of milk and cream produced in the west has increased at a rate proportionate to the butter and cheese production, making a grand total of dairy products which runs from fifteen to twenty million dollars annually.

CANADA LAND

If you are interested in land in Western Canada, particularly in Central Saskatchewan and Regina district, we shall be pleased to give you all possible information. We have several good bargains in improved and unimproved farms for sale. We are also prepared to negotiate first mortgage loans on improved lands. Correspondence solicited.

Brook and Allison

P. O. Box 94.
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References: Dun's & Bradstreets, or Sterling Bank of Canada.

CANADIAN EXPORTS.

As shown elsewhere in these issues the 1916 Canadian exports in iron and steel products, in bread-stuffs and in provisions, has reached a record value, produce alone being exported to the value of \$882,872,502 to all countries, but chiefly to the United Kingdom.



Canadians on the Firing Line

We have at present some 350,000 Canadian either in training or on the firing line. These Canadians are doing their whole duty, and are ready if necessary to make the supreme sacrifice for their country, and we take off our hats to them.

Those of us who are left at home have also a duty to our country, and that is to keep the wheels of Commerce turning and provide the sinews of war for our men at the Front.

To do this most effectually we must increase our products of every kind, and curtail our imports of every article that can be made or grown in the Dominion.

In regard to Watch Cases, the **AMERICAN WATCH CASE COMPANY** are making special efforts to furnish Canadians with cases of every variety at the very lowest price consistent with the high quality of their goods.

By buying Watch Cases made by them, you will not only perform a patriotic act, but you will also help yourself by saving the entire duty levied upon imported cases.

It is not always that Patriotism and Self Interest go hand in hand, but they certainly do so in regard to the purchase of Watch Cases and don't you forget it.



Look for their Trade Mark of the Winged Wheel, and remember that every case so stamped is warranted by the **AMERICAN WATCH CASE COMPANY, Limited**, of Toronto, the largest manufacturers of Watch Cases in the British Empire, no matter by whom they are sold. Look for this Trade Mark and take no other.

The American Watch Case Company of Toronto, Limited

British Columbia Halibut Fisheries Increasing Output

Completion of Grand Trunk to Prince Rupert Has Been a Big Boon to Halibut Fisheries.

The halibut fisheries of British Columbia are becoming one of the most productive of Canada's natural resources. The exports of Halibut for the fiscal year 1915 were worth \$451,912 as compared with \$282,304 in the previous year and \$147,343 in 1913. The exports are almost entirely to the United States, with a very small percentage to the United Kingdom. The following figures show the value of the halibut exports in recent and earlier years.

Total Halibut Exports.

1900	\$ 55,580
1905	\$ 64,167
1910	\$ 84,153
1912	\$129,761
1913	\$147,343
1914	\$282,304
1915	\$451,912

Halibut Exports.

Year.	To United States.	To United Kingdom.
1895	\$102,640	.....
1900	\$ 42,523	.....
1905	\$ 64,094	.....
1908	\$102,448	\$ 1,933
1911	\$138,891	\$ 240
1914	\$262,939	\$18,802
1915	\$437,148	\$14,300

The 1915 exports which totalled 7,270,514 pounds were the largest in the history of Canada, the previous high record being the 1914 total of 4,610,345 pounds.

With the completion of the Grand Trunk Pacific Railway the halibut exports have shown enormous increases, for practically all of the total Canadian export increases are due to the exports from the western coast, rushed through in a fast through service put into effect by the Grand Trunk Railway. The completion of the railway has thus from its first year of completed operation, been responsible for adding a big monetary value to the fishing industries of Canada and especially to the production of the Pacific fisheries.

The halibut fishing industry of British Columbia has now become an important department of Canadian industry, filling an ever increasing market fisheries. Any Canadians who criticized the building which could not be handled by the Atlantic halibut line of the Grand Trunk lines to Prince Rupert were more than satisfied that the project was justified, when the railway first inaugurated its fast freight service for the benefit of the Pacific halibut fisheries.

It was always conceded that the Grand Trunk system passed through some of America's finest wheat and grazing lands, and that the opening up of northern Alberta and northern British Columbia, was almost like the opening up of a new Dominion.

It was, however, scarcely realized by the most sanguine admirers of the railway project, that the completion of the railway would have such an immediate and beneficial effect upon the Pacific fishing industries. The halibut fisheries of the Pacific offer unlimited resources and are likely to prove an important factor in the productive output of Canadian natural industries after the war. Here is a field which will offer countless opportunities to thousands of men who have been engaged in the fishing industries of Europe and especially to those from Great Britain and France.

The Grand Trunk Pacific Railway in inaugurating its fast freight service, has rendered to the industries of the Pacific and to Canada as a whole, a service which will mean the increasing of Canadian output very materially and which opens up to new settlers and after-the-war immigrants opportunities of unlimited value. In the increasing of the halibut fisheries alone, the building of the Grand Trunk to Prince Rupert, has been more than justified. But the prosperity of the halibut industry was made possible not alone with the completion of the railway, so much as in the foresight and the consideration of its managing officials, who lost no opportunity and no time, in making useful through a needed service of fast freight, the railway line which they had been able to complete.

—G. C. P.

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14-16-18 Bonsecours Street

MONTREAL

ALL KINDS OF CANNED FISH, THE BEST BRANDS IN THE MARKET.

Gold Medal Lobsters in 1 lb., 1/2 and 1/4 lb. tins.

Sovereign Brand of Salmon in 1 lb. and 1/2 lb tins.

Niobe Sardines 1/4 lb. in the purest of Olive Oil. The best value in the market at present.

All kinds of Imported and Domestic Herrings in Tomato Sauce and Kippered.

Canned Swedish Anchovies, Russian Caviar, Scallops, Japanese Crab Meat, Shrimps, Clam Bouillon, Clam Chowder, etc.

Every luxury in the canned fish line. Always in the pink of condition at the Old and Reliable Headquarters—

D. HATTON COMPANY - - MONTREAL

Quality

Chase & Sanborn's Coffees have been dependable for more than fifty Years



Try SEAL BRAND

In 1/2, 1 and 2 pound cans. Whole-ground—pulverized—also Fine Ground for Percolators.

170



Everything in
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Manufacturing Rubber Goods for all purposes, including:—

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"DOMINION" Raincoats, Rubber Coats, Blankets, Sheet-
ing, Carriage Cloths and Covers, Auto Cloth, Proofed Silks
and Cottons.

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"DOMINION" Auto Tires, Motor Truck Tires, Carriage Tire
Motor-Cycle and Bicycle Tires, etc.

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British Columbia Mineral Output \$260,620,000 in Ten Years

Big Increases in Gold, Silver, Copper and Coal Productions. Vast Mineral Areas Still Undeveloped. Possibilities of Radium Ores in Province. Yearly Mineral Production Worth Over \$25,000,000.



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**\$18 FOR FIFTY YEARS
OF RESTFUL SLEEP**

The Parkhill Mfg. Co.

Limited
Successors to The Alaska Feather & Down Co., Ltd.

MONTREAL

WINNIPEG VANCOUVER

Canada has no Pure Bedding Laws—
WE HAVE

The aggregate value of the whole mineral production of British Columbia for all years up to and including 1914 was \$486,833,745, and the production during the last ten years has exceeded a value of \$260,620,000. British Columbia is still practically undeveloped in its mining resources and not twenty per cent of the province has even been prospected. 300,000 square miles of unexplored mineral bearing land are open for prospecting.

Lode mining has only been in progress about twenty years in this province and the production has included the following minerals. Placer-gold \$73,269,603; Lode gold \$81,595,516; Silver \$37,709,282; Lead, \$31,468,462; Copper, \$86,939,370; other metals (zinc, iron, etc.) \$2,198,949.

Coal and coke have shown a total production valued at \$149,814,462 and building stone, brick, cement, etc., have been produced with a total value of \$23,827,101. There have been tremendous increases in the gold production and in the coal production.

The figures show that the production for five years, 1899-1904, was greater than for all the years up to 1894, while the production for the five year period ending with 1914 was the largest in the history of the province, totalling a value of \$139,002,161. The production for the previous five year period was valued at \$121,618,733.

British Columbia has the second largest mineral production of any province in Canada being exceeded only by the province of Ontario. In 1914 the production of British Columbia was valued at \$24,202,924 as compared with \$52,147,973 for the production of Ontario, both provinces showing slight reductions from the previous year. British Columbia in that year produced 18.84 per cent of the total mineral production of all Canada and in 1913 produced 19.29 per cent of the total Canadian mineral output.

Taking 1913 as an example, this being one of the

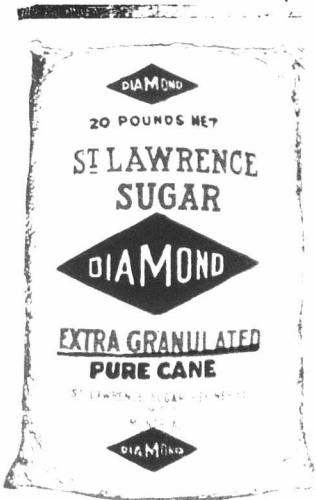
Radnor

**Empress of
Table Waters**

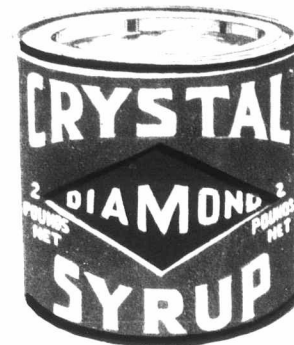
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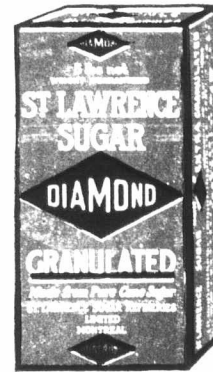


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There is always a big demand for a table syrup of such high-grade quality as **CRYSTAL DIAMOND SYRUP**.

ATTENTION is called to the illustrations in this announcement showing the variety and sizes of Packages in which St. Lawrence Sugar may be bought.



Crystal Diamond Lumps are brilliant and sparkling—uniform in size and dissolve quickly. Crystal Diamonds have become a household favorite.

record years in all Canadian mineral production, the figures show a gold production for British Columbia valued at \$6,149,027, while the production of gold for all Canada including the Yukon was valued in the same year at \$16,577,634. British Columbia producing considerably more than a third of the total production. The gold production for the province in 1913 showed a gain in value of nearly \$1,000,000 over the previous year. In 1912 the Yukon production was slightly larger than British Columbia's but in the next year this province exceeded the Yukon production by nearly \$1,000,000.

The silver production in British Columbia in one year exceeds a value of \$1,980,483, this production in 1913 exceeding Quebec and the Yukon, and being exceeded only by Ontario. The silver production of British Columbia produced since mining was first taken up in this province has exceeded a total value of \$37,709,000.

British Columbia is fast becoming one of the important copper mining centres of the continent. In 1913 the copper production was valued at \$6,991,916 which was over half of the total copper production of Canada for that year, the whole Canadian copper

production being valued at \$11,753,606. In the previous year British Columbia had a copper production valued at over \$8,000,000. The total copper production of this province up to 1914 exceeded a value of \$86,939,370. Developments of 1914-15 and 1916 have included operations in new copper fields and the production is likely to show substantial increase.

The coal production of British Columbia has shown remarkable increases. The total value of the production up to and including 1914 was \$149,814,462 and the production from year to year is shown in the following table.

BRITISH COLUMBIA COMPARITIVE GOLD PRODUCTION.

British Columbia	\$6,149,207
Ontario	\$4,543,690
Yukon Territory	\$5,846,780
Nova Scotia	\$44,935
Quebec	\$12,491

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England's Best - Canada's Favorite

	Tons.
1908	2,333,708
1909	2,606,127
1910	3,330,745
1911	2,542,532
1912	3,208,997
1913	2,714,449

The figures of 1913 and 1914 were somewhat affected by the strike and labor troubles which for two or three years seriously retarded the possible increases in the coal output of the province. Labor

conditions have improved in recent months, but owing to the large number of men required for overseas services there has been little opportunity for increasing to any great extent the coal output of this province. There are still thousands of acres of coal lands in the province undeveloped.

There are a large variety of minerals produced in British Columbia as is shown in the one year mineral production valued at \$28,086,312 in 1913, and \$24,202,924 in 1914. Considerable interest has been manifest in the discovery of what is believed to be radium ore and it is believed that eventually

this valuable mineral will be discovered in British Columbia in some quantity. The gold, silver, copper and coal productions have shown continuous increases and despite the war there is considerable activity in British Columbia mining development at the present time.

The following chart shows British Columbia's position as a gold producing province in comparison with other parts of Canada, the figures showing the value of gold produced in 1913. There were slight reductions in 1914.

MINING PROGRESS OF B.C.

The following figures show in tabulated form the mining progress of British Columbia as shown in the value of minerals produced and as indicated in the accompanying chart.

All years up to 1894	\$ 88,904,199
1909-1914	46,906,258
1904-1909	90,391,394
1899-1904	121,618,733
1894-99	132,002,161

MINERAL PRODUCTION OF BRITISH COLUMBIA.

The following chart shows the mineral production of British Columbia, showing also the five year productions up to and including 1914.

All years up to 1894	\$88,904,199
Five years—1894-99	\$46,906,258
Five years—1899-1904	\$90,391,394
Five years 1904-09	\$121,618,733
Five years—1909-14	\$139,002,161

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A Plea for National Industrial Development

By HERBERT CUTHBERT, Industrial Commissioner, Victoria, B.C.

Never has Canada loomed as large in the eyes of the world as today. When the war is over there will be a tremendous demand for information as to her resources and possibilities. But should not our own people now inform themselves in regard to the latent wealth of the various provinces, and endeavor to find some means of procuring its development?

Why wait for the end of the war? It is just as much as duty of the Canadian at home, to see about the business of securing the development of our natural resources NOW, as it is for our fathers, brothers and sons who have gone to the front, to put up the glorious fight which is commanding the admiration of the world.

"Keep the home fires burning." This was the message wafted from the steamer as the 103rd battalion was leaving Victoria harbor. Surely a message fraught with the deepest sentiment and a most potent meaning—one that not only stirs the heart, but appeals to the practical patriotism of those left behind. What are the people who are left in Canada doing to keep the home fires burning? The greatest reproach that can be cast upon us as a people, at the end of the war, is for the gallant men—those who are left—to come home and find that no attempt has been made in their absence to anticipate their return, and to provide the means that will enable them to be absorbed into our industrial and commercial life.

Is it not a strange thing, that whenever the returned soldier is spoken of, nay, rather the returned doctor, lawyer, manufacturer, merchant, clerk, laborer, financial agent, farmer and farm-laborer, who has been soldiering for a time because his King and Country needed him, everyone talks about putting him on the land, providing him with 100 acres, etc., etc., as if Canada had nothing else but land, as if the people of this and every other country were never going to need anything but foodstuffs, and

as if, in times of peace, there is never a question of over production in wheat, barley and oats. Nay, rather let us inform ourselves upon our vast resources in other forms of natural wealth, and endeavor to find means for their development, and thus create material for other forms of industry, a demand for all kinds of labor, add to the liquid assets of the Dominion, and provide a greater population to consume our agricultural products.

Sir George E. Foster has issued a call to action, addressed to manufacturers and other business men, but this call might have been extended to the Canadian capitalists to organize their capital to create raw material from the rich deposits scattered over this vast Dominion, that will form the basis of the industries to which Sir George Foster largely refers. There is something to be done even before we appeal to the manufacturers, and that is to get at the uncovered riches possessed by Canada, perhaps to a greater extent than by any other land.

In British Columbia, to say nothing of the other provinces, we have enough latent wealth to make any nation "rich beyond the dreams of avarice." What we want is men—captains of industry who will recognize our advantages, and can organize and finance their development. We have millions of acres of agricultural land, but not enough agriculture to feed our own people, for we import \$13,000,000 worth of farm produce annually, for a population of 350,000. We have fisheries that this year produced \$11,515,086 one-third of the total of all Canada, but the development of these same fisheries is only in its experimental stage.

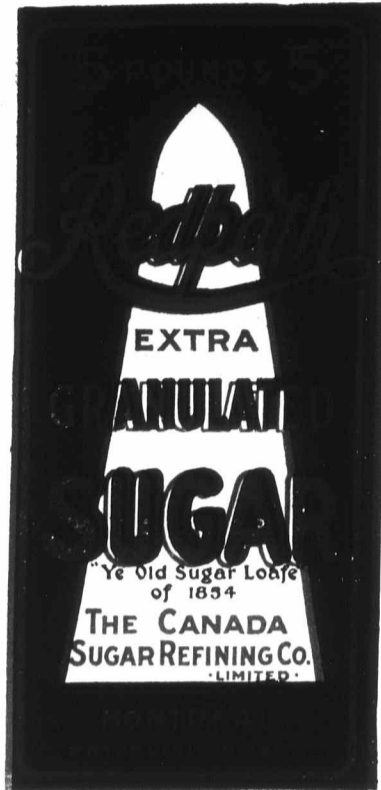
We have in our immense forests, the greatest compact area of merchantable timber in the world, including Douglas fir, cypress or yellow cedar, red cedar, hemlock, and spruce, but we have not been able to market our lumber during the war, because of the lack of funds to provide ships to get it to

market. Can anyone tell us of the intrinsic value of our timber, when we are selling it today for \$12 per thousand feet, but are paying 275 shillings, or about \$69 per thousand to carry it to the United Kingdom. These rates do not include insurance and other charges. Does it not sound reasonable that some of this tremendous cost of freight should go into the lumberman's pocket for his product, or in any case be distributed amongst Canadian ship owners, if we had the ships, rather than be paid to outside companies? We have the largest coal mines on the Pacific Coast, and, in addition, undeveloped coal areas sufficient to supply the world for centuries. We have immense petroleum deposits, thousands of acres of pulp wood, and last but not least by any means, more extensive mineral deposits, and of a more varied character, than almost any other part of North America.

Our mines have produced nearly 500,000 million dollars, and there never was a time when our metaliferous mines were in better condition than they are today; of course, this is to be expected, considering the present price of metals. In our mineral assets we have deposits of almost every known economic mineral, including plumbage, platinum, cinnabar, molybdenum, chromic iron, manganese, asbestos, mica, magnesite, asphaltum, gypsum, schist, aquerite, pyrites, osmiridium, and palladium.

No mention has been made of our extensive resources in iron ores, both hematite and magnetite, which are totally undeveloped, and it is to this subject I wish to draw particular attention. Our most urgent need in British Columbia today, is the development of our iron and steel industry. We are told that it is only a matter of a very short time before American capitalists will take hold of this industry and develop it thoroughly, but is this what we want? It is better to have them developed by outside capital than not at all, but the present war has proved that a country is not rich simply because it has gold

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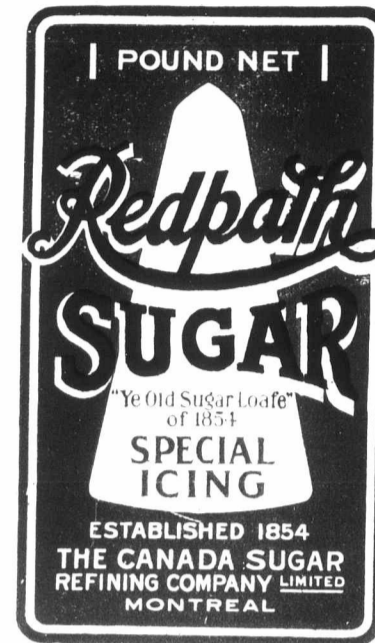
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coin, bonds and securities, but rather because of the latent and undeveloped natural wealth that is capable of being turned in liquid assets or mediums of exchange.

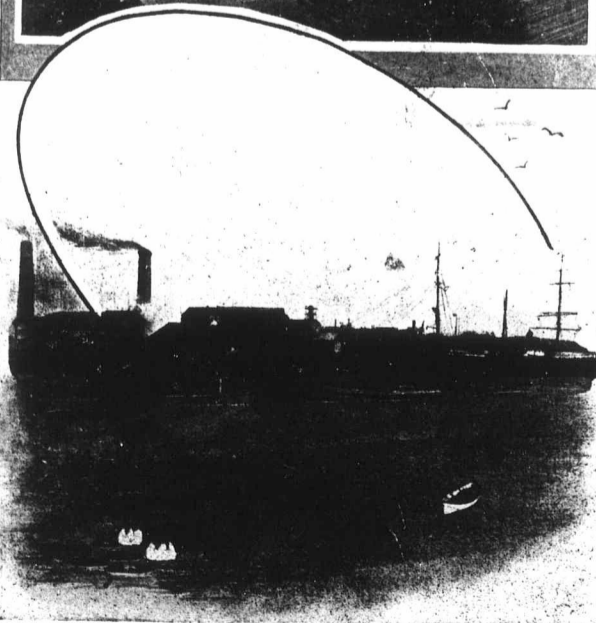
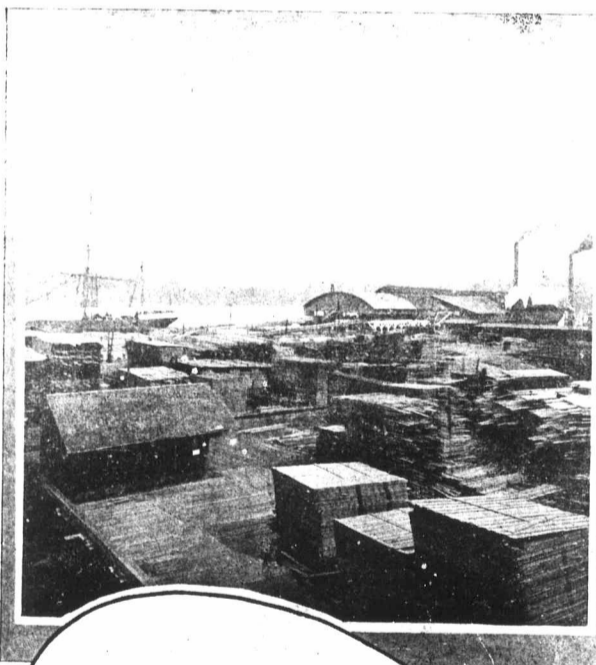
Do we want the profit derived from the development of our raw material to go out of the country, or do we want it to remain in Canada to help pay the liabilities incurred in this war, and to help further develop our great country? Have we not sufficient man, with the necessary financial resources, to come to British Columbia, and in the interests of the Dominion and of the Empire, and to their own profit, take hold of these iron deposits, and by the establishment of by-product coke ovens, blast furnaces, roller mills, and all other modern means, place this in the forefront of our great basic industries?

The iron and coal deposits have been reported upon by the world's greatest experts, so that there is no possible doubt of their extent or value. Let me quote from one of these reports—

"Vancouver Island contains large deposits of Magnetite, Coking Coal, and Limestone, all lying within easy reach of the sea; it is well supplied with timber for mining purposes; has an excellent climate, possesses good harbors, and is conveniently situated as a centre of export, and for these reasons it seems naturally destined, sooner or later, to become the centre of an iron making industry."

"It may be thought doubtful at first sight whether iron made in a country in which wages are as high as they are in British Columbia could be produced cheaply enough to enable it to compete in neutral markets with iron made in Europe, the United States, or China, but when the character and magnitude of the deposits of raw materials, and their proximity to each other and to the Coast are taken into account, it will become apparent that if the very best processes and mechanical devices are adopted and only the most skillful labor employed, the cost of the finished products may be sufficiently low to enable them to compete in any market within a reasonable distance of Vancouver Island.

"This is the object to be aimed at, and the following short accounts of the deposits, together with the estimated costs of working, preparing, and delivering the raw materials at the furnaces, will show



that an Iron Works installed in Vancouver Island would be as favorably situated in these respects as most, and much better than many other installations of the same kind in other countries."

After dealing exhaustively with the various deposits of iron ore throughout Vancouver Island, and also with the quality of the coal and the cost of making coke, an estimate is made for the production of pig iron, at an outside cost of £2.17.7½ per ton, or approximately \$13.75 per ton. The price we pay here for pig iron today, is \$35 to \$40 per ton. These reports are very exhaustive, and it is impossible to quote from them in an article of this kind, except one or two salient points, but his general conclusions are summed up in the following paragraph:

"That an installation comprising one blast furnace for an output of say 100 tons per day, together with the required complement of steelmaking and rolling mill plant, coal washing appliances, and by-product coking ovens all of the most modern and approved type, would constitute a remunerative investment in Vancouver Island at the present day."

This report was written three or four years ago, when the prices of iron and steel were vastly different from what they are now.

Since that time there has been a very exhaustive report made on the coal products of Vancouver Island, by an eminent expert from Sheffield, England, who says that we have the finest coal of any he knows of anywhere in the world, for producing coke, and the various by-products, by a new method which has generally been adopted in England. It should be pointed out here, that all these estimates were based upon labor conditions when labor and material necessary for construction, were much higher than they are at the present time.

Under these circumstances there should be no difficulty, not only on patriotic grounds, but on those of ordinary business, of procuring Canadian capital to open up these iron deposits, and to establish this great industry.

It need hardly be stated that the establishment of modern iron and steel works in British Columbia, would, besides contributing to the general wealth of the nation, be the means of stimulating manufacturing industries in all the principal centres in British Columbia, and would inaugurate an industrial development that will never take place until such works are established.

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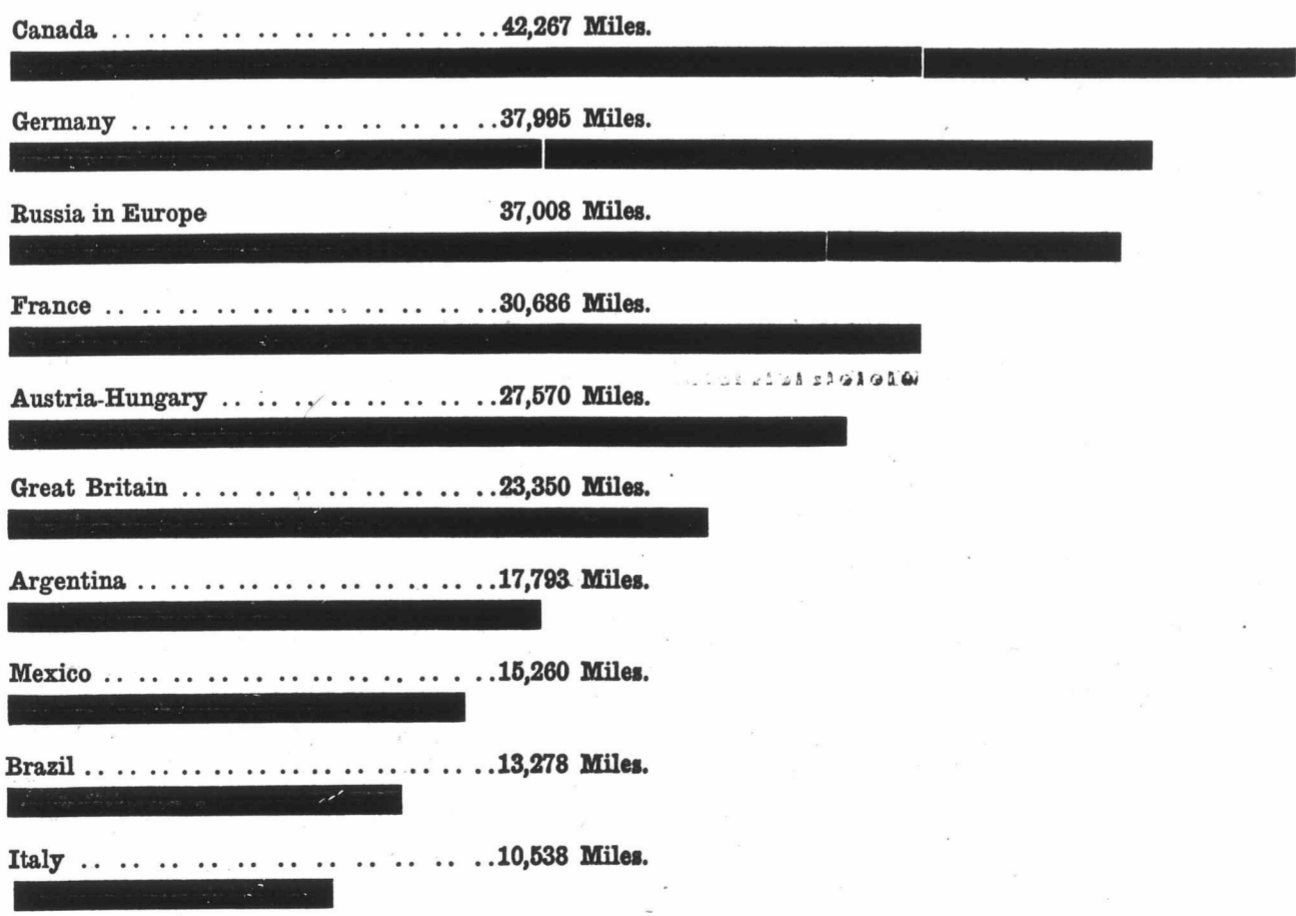
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COMPARATIVE CANADIAN RAILWAY MILEAGE.

With the completion of the lines now under construction Canada will have the second largest railway mileage of any country in the world, being exceeded only by the United States. The figures in the following chart includes 30,795 miles in operation at the commencement of 1915 and 11,472 miles under construction, making a total of 42,267 miles.

The following chart shows the mileage of Canada in comparison with other countries, not including the United States.



British Columbia Fishing Area Over 7,000 Miles Sea-Washed Shore.

The fishing industry of British Columbia has made such rapid strides in production during the past year or two that it gives promise of playing a close second to the lumber and mineral industries of the province. The fishery production of this one province now reaches the total value of over \$13,000,000 annually, being nearly half of the total fishery production of the whole of Canada, including the inland fisheries as well.

In 1914 the fisheries yielded a value of \$13,891,398 in British Columbia and in the previous year they yielded a value of \$14,455,488. This was a total yield in two years worth over \$28,000,000, or nearly equal to the whole two years production for the combined provinces for 1892-93.

The following figures tell the story of the British Columbia fisheries, these being the figures for the fish marketed in the years mentioned:

1910	\$10,314,755
1911	9,163,235
1912	13,677,125
1913	14,455,488
1914	13,891,398

In these five years under review the fisheries added over \$61,000,000 to the wealth of British Columbia.

The salmon fishery is predominant on the Pacific coast; but a very extensive halibut fishery is carried on in the northern waters of the province in large, well equipped steamers and vessels. The method of capture is by trawling, dories being used for setting and hauling the lines, as in the Atlantic deep-sea fishery. Herring are in great abundance on the Pacific Coast, and provide a plentiful supply of bait for the halibut fishery.

Since the completion of the Grand Trunk Railway, Prince Rupert has become one of the biggest fish shipping centres in Canada. Very large halibut shipments are sent by rail from Prince Rupert to the coast, comprising some of the biggest fish shipments ever sent overland on this or any other continent.

The salmon industry has become one of the biggest industries of British Columbia. In 1913-14 the canned salmon marketed in Canada was worth \$7,743,582, which was more than a million dollar increase over the figures for the previous year. The salmon fisheries of Canada in one year show the following figures, and while not entirely from British Columbia, probably 90 per cent of the output may be accredited to this province.

Canned salmon	\$7,743,582
Dry, salted and pickled	876,596
Smoked	148,505
Fresh	2,065,030

COMPARATIVE B. C. PRODUCTION.

The following chart shows the comparative value of British Columbia Fisheries with other products including minerals and lumber produced in the Province in one year.

B. C. Fish Production—1914	\$13,891,398
B. C. Mineral Output—1914	\$26,388,825
B. C. Lumber, Shingles, Laths—1913	\$17,796,619
B. C. Mfg. Products. (Not including above)	\$18,000,000

These figures show over \$10,000,000 monetary value of the salmon industry of Canada for the year 1914, of which a large per cent was in British Columbia.

The province of British Columbia, owing to its immense number of islands, bays, and fiords, which form safe and easily accessible harbors, has a sea-washed shore of 7,000 miles. Along this shore, and within the limits of the territorial waters, there are fish and mammals in greater abundance probably than anywhere else in the world. These Pacific coast fisheries are still practically untapped, the fishing industry especially in the northern part of the province being still in its infancy.

The canning industries of this province represent an investment altogether of approximately \$5,000,000 and this industry is a very large employer of labor, providing as it does an immediate market for the fisherman's catch and requiring thousands of hands to put up and ship the big output of British Columbia's salmon canneries, the products of which approximate an annual value of \$10,000,000.

Not until the completion of the Grand Trunk Pacific Railway to Prince Rupert were the halibut areas of the northern Pacific exploited to any extent. The past two years had witnessed a tremendous increase in the halibut production of British Columbia and halibut has become one of the biggest exports from Prince Rupert.

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Being located only a few doors from the Canadian Patent Office at Ottawa, this firm is in a position to give their clients PERSONAL SERVICE, which attorneys outside of Ottawa cannot give. This means a great deal when complications arise in the prosecuting of an application. They can go into the matter personally with the Examiner and straighten out difficulties promptly, thus illuminating letter writing which in the handling of complaints, etc., is far from effective. Broader claims and earlier allowances are often obtained in this way.

The main feature of this firm's business is its GUARANTEE. This is the only firm in Canada who will guarantee to "OBTAIN A PATENT OR REFUND THEIR FEES." Other Attorneys do not in any way guarantee their Search to be correct, and a great many of them do not make a Search of the Patent Office Records before making an Application. This firm always makes a Search at their own expense, before filing an application and they send their client's Certificate of Patentability in which is written their guarantee. If they don't get the Patent, they have to refund their fees and in this way their clients are assured of the most minute and careful attention before the Patent Office.

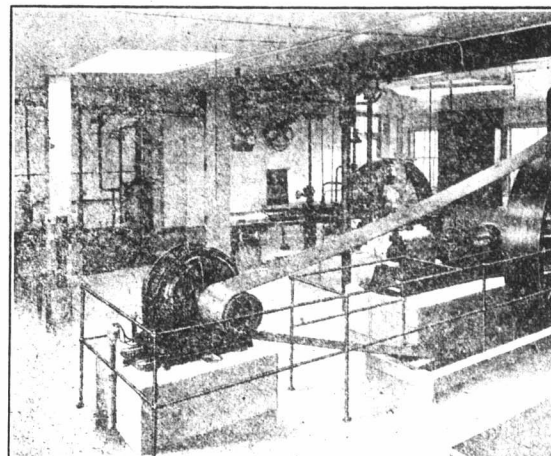
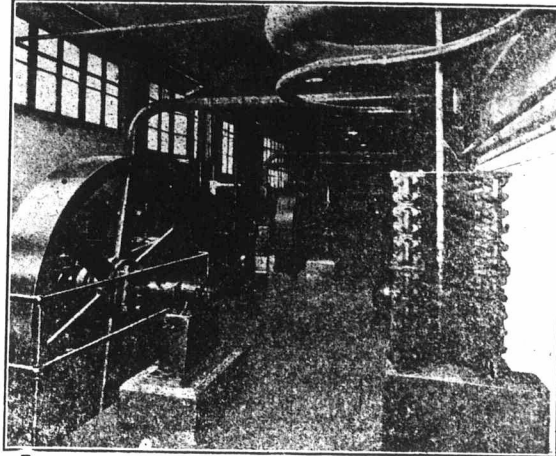
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INDUSTRIAL PAY ROLL OF ALBERTA.

The following table shows the increase in the manufacturing pay roll of Alberta. As in the Saskatchewan chart, the 1900 figures are taken by a division of the total for Saskatchewan and Alberta, in which year the industrial census of the two provinces was combined.

1900	\$ 232,881
1905	1,167,107
1910	4,365,661
1915—Estimate	6,000,000

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WESTERN OFFICE,

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Western Development

BRITISH COLUMBIA'S INDUSTRIAL PAY ROLL.

The following figures show in tabulated form the expansion of industry in British Columbia as marked by increases in pay rolls.

1900	\$ 5,456,538
1905	11,413,315
1910	17,240,670
1915—Estimate	20,000,000

BRITISH COLUMBIA INDUSTRIAL OUTPUT.

The increase in British Columbia's industrial output is shown in the following table. A conservative estimate is given for 1915 allowing for possible reductions in lumbering or other departments of manufacturing.

1900	\$19,447,778
1905	38,288,378
1910	65,204,236
1915—Estimate	75,000,000

Record Canadian Trade

New High Record of \$1,668,880,000 Reached.

During the second year of the war Canada's total trade, exclusive of coin and bullion, reached the new high record of \$1,668,880,000 as compared with \$920,532,000 for the preceding twelve months. The balance of trade in Canada's favor grew to \$359,860,000 as compared with \$89,088,000 for the year

ending with August, 1915. The aggregate favorable trade balance for the two years is \$448,948,000, and the export of manufactured articles for the two years aggregated \$453,867,000 or more than four times the total value of manufactured exports for the two years preceding the war.

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LIMITED

STEEL CASTINGS - MANGANESE STEEL CASTINGS
GRAY IRON and SEMI STEEL CASTINGS - BAR STEEL
COUPLERS - COIL and ELLIPTIC SPRINGS
STEAM and ELECTRIC RAILWAY TRACK WORK

GENERAL OFFICES:
Transportation Building, - MONTREAL.
LONDON (Eng.) OFFICE:
Trafalgar House, Waterloo Place

WORKS:
WELLAND, ONT.
POINT ST. CHARLES, MONTREAL
LONGUE POINTE, MONTREAL

Unique Start of Invention Now World Famed Office Equipment

The "Shouperior" recorder manufactured and sold only by the Autographic Register Co., of Canada, Limited, is designed, built and used mainly for the facilitation of all business systems, but also to prevent, with the least possible cost and effort, possible falsification of records, forgetfulness, negligence, etc.; or in other words, to cause the original writing of any records, in business, on any system, to reproduce itself automatically so that each of those concerned in the transaction may have a voucher or notice, and at the same time be protected by duplicate fac-simile, under lock and key for checking purposes and for proof of its execution.

It was as far back as 1880 that the late James C. Shoup, a young lawyer of St. Louis, invented what has since developed into the world's most complete manifolding devices. The name "Shouperior" was devised from a combination of Mr. Shoup's name and the word "Superior." The first machine made in 1883 had a wooden box, with iron base and glass windows, and the next model, "B," made in 1890 was of cast iron. Improvement was made from time to time, until the present model of cold rolled steel was brought out.

To-day the "Shouperior" manifolding devices are the world's most modern office equipment, they are made in Canada at the Montreal factory and the company has always made it a policy to use Canadian material exclusively, regardless of cost. The company has Canadian offices at Montreal, Toronto, Winnipeg and Vancouver, agencies in Saskatoon, Moose Jaw, Regina, Calgary, Edmonton, Halifax, St. John, and offices in New York, Boston, Philadelphia, Pittsburg, Baltimore and Syracuse. The United States factory is in Hoboken, New Jersey.

The men behind the "Shouperior" productions are men who have spent a life-time in the service of the company, most of the officials having worked up to their present positions from a start in the manufacturing departments. With thirty-six years experience in the one line of business and with half a million friends, the "Shouperior" product stands to-day not only as a Made-in-Canada product, but as the world's standard for an office equipment of which the pioneers of this company were the originators.

The devices are manufactured in various styles and sizes, from the small portable machine which can be stored in a very small space, to the big combination typewriting table, manifolding machine, etc. The prices range according to the size of the equipment, but regardless of the price, the quality of every machine is "Superior," a name which has become synonymous with "Shoup."

SASKATCHEWAN INDUSTRIAL PAY ROLL.

The following table shows the increase in the industrial pay roll of Saskatchewan. The 1900 figures are taken by a division of the figures for Alberta and Saskatchewan, for which year these provinces were combined in the statistical census.

1900	\$ 232,881
1905	721,875
1910	1,936,284
1915	2,500,000

LUMBER INDUSTRY IN B. C.

The condition of the lumber market from the millman's standpoint continues to show improvement in British Columbia. It has been predicted that the advent of spring will place the industry in a more favorable position than at any time in years. In addition, shipbuilding activities will cause a considerable demand for timber. Negotiations with Norwegian interests will mean the construction of three vessels at a cost of \$3,000,000. It is freely predicted by those in touch with the industry that enough ship orders are in sight to keep every plant working for three years.

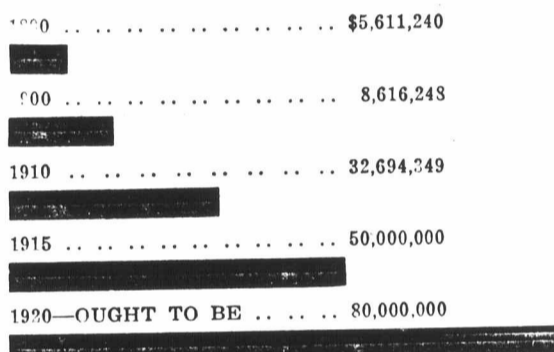
Manitoba and Winnipeg Industrial Increases

Industrial Progress of Winnipeg Value of Products

1890	\$5,611,240
1900	8,616,248
1910	32,694,349
1915	50,000,000
1920—OUGHT TO BE	80,000,000

Manufacturing Growth of Winnipeg

The following chart indicates the industrial growth of Winnipeg, as shown in the value of products.



Capital Invested in Manitoba Manufactories

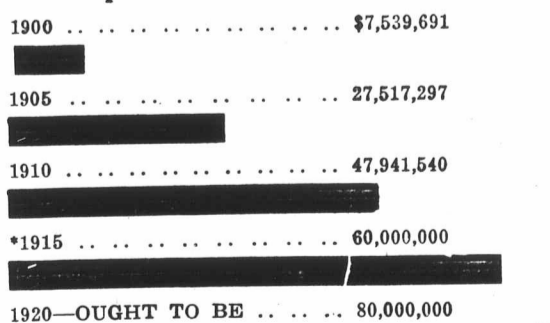
The following figures show in tabulated form the capital invested in manufacturing industries in Manitoba, as indicated in the accompanying chart.

1900	\$7,539,691
1905	27,517,297
1910	47,941,540
1915	60,000,000
1920—OUGHT TO BE	80,000,000

Industrial Progress of Manitoba

The following chart shows the capital invested in manufacturing industries in the Province of Manitoba, showing increases in five year periods.

Capital in Manitoba Industries



*Estimate based on natural increase.

SERVICE

The
"Shoupaligner"



WRITE ONCE,
TURN THE CRANK,
TEAR 'EM OFF!
THAT'S ALL.
WRITE AGAIN—DITTO.

Pen, Pencil or Typewritten Records



MANIFOLDING DEVICES
AND ROLL SUPPLIES FOR ALL
BUSINESS SYSTEMS

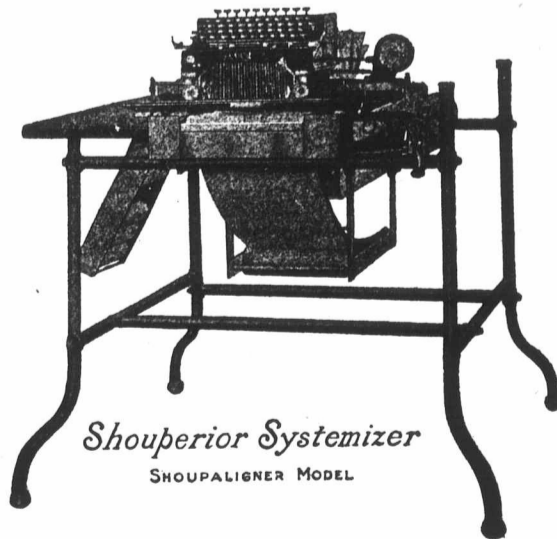
Leaders in 1880, the year of the original invention of Autographic Registers by Mr. James C. Shoup—"SHOUPERIOR" Products lead today, with the greatest variety, most efficient and economical manifolding devices in existence.

A DOZEN STYLES
IN NINETY SIZES

Thousands and thousands of good live progressive concerns, in all lines of businesses, throughout the entire Dominion of Canada and a good part of the United States, enjoy daily, the efficiency, economy and modern convenience of the now famous "SHOUPERIOR" Service—a life-time of specialized experience in seeking, mastering, minimizing and eliminating all "red-tape" detail, etc., in any and all kinds of business systems, or wherever written records are required to be executed in multiple sets.

If you are now using the "SHOUPERIOR" Products and its service, you are using the best to be had for the least to be paid, if not, tell us about your method of executing business records and we will tell you how to do it cheaper, faster and better. A broad assertion, but try us once and learn for yourself the good of "SHOUPERIOR" as many thousands of others have done to their extreme pleasure and financial satisfaction.

Your name on our books will be highly honored and earned at all times with the very best we have to give, not alone in the product itself, but with brains acquired by long years of study and specialization. Our men are trained in this line alone, some of them for thirty years, many more for twenty years, and a lot from five to fifteen years, therefore our men KNOW the why and wherefores of your requirements and how to serve you best. All quotations are based upon a scientific understanding of costs and production—the lowest prices possible for the kind and style of services rendered.



Shouperior Systemizer
SHOUALIGNER MODEL

Autographic Register Company

— OF CANADA, LIMITED —

Montreal - Toronto - Winnipeg

SALES OFFICES IN PRINCIPAL CITIES—A LITTLE EVERYWHERE

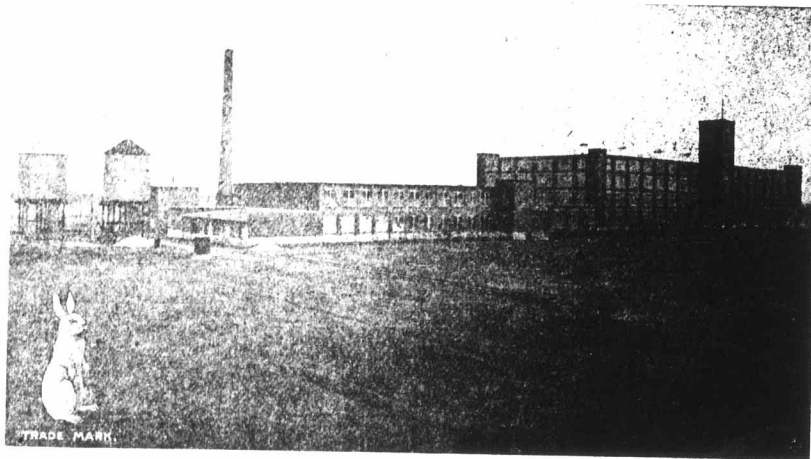
Wabasso Cottons

GOOD AS GOLD

WHITE AS SNOW

WABASSO BLEACH

GOOD AS GOLD



WHITE AS SNOW

ABSOLUTELY PURE

The Wabasso Cotton Company, Ltd.,

Three Rivers, Quebec

We have the largest Mill in Canada manufacturing Bleached Cottons. The following are some of the lines we manufacture:

Wabasso Lawns,
Wabasso Nainsooks,
Wabasso Cambrics,
Wabasso Longcloths,
Wabasso Sheetings,
Wabasso Pillow Cottons,
Wabasso Piques,
Wabasso Repps,
Wabasso Middy Twills.

We also manufacture very high class corset coutils and jeans.

Address all Correspondence to
the Mills

Canadian Cottons

LIMITED

Montreal Toronto Winnipeg

Cottonades	Cassimeres
Denims	Tickings
Shirtings	Galateas
Dress Gingham	Dress Goods
Eiderdowns	Flannelettes
Saxonys	Shakers
Domets	Napped Sheetings
Cotton Blankets	Yarns

THE D. MORRICE COMPANY LIMITED

AGENTS

Evidences of Growth

The Textile Industry is one of Canada's most rapidly expanding industries

It is estimated that the capacity of Canadian mills has been increased by 25 per cent during the past two years.

Practically every mill in the Dominion has shared in this expansion.

Several new mills are now in course of construction.

Besides supplying the needs of the Canadian forces in the way of clothing, the mills have handled several million dollars worth of foreign government business, and a greater proportion of domestic business than ever before.

There is every indication that the mills will retain the hold they have obtained on the domestic field.

New lines are being manufactured, and the mills generally are better equipped than ever before.

We shall be glad to give facts corroborating these statements, as well as further evidences of expansion, and our faith in the future of the industry.

There is only one Textile Periodical in Canada, viz.,

CANADIAN TEXTILE JOURNAL

Circulation Figures and Advertising Rates
Gladly Furnished.

CANADIAN TEXTILE JOURNAL

45 ST. ALEXANDER STREET.

MONTREAL, CANADA.



Dominion Textile Cotton Fabrics

Are "Made in Canada" to Suit Canadian Needs

THE Dominion Textile Company, Limited, is an organization operating 12 mills --- employing 10,000 people--and producing practically everything in Cotton. The quality is equal to that of imported goods, and as our cottons carry no duty, they give better value for their cost.

Some of our Popular Lines:

"Magog" Prints	"Steelclad" Galateas
"Rockfast" Drills	"La Pauline" Mulls
"Ostend" Crepes	"Ibex" Blankets
"A A" Ducks	"Dragon" Blankets
"Magog" Kimona Flannels	

We Manufacture and Guarantee:

All Lines of White and Grey Cottons, Prints, Sheetings, Shirts, Pillow Cottons, Longcloths, Cambrics, Organdies, Challies, Delaines, Crepes, Galateas, Curtain Scrims, Art Ticking, Ducks, Bags, Twills, Drills, Quilts, Bureau Covers, Towels and Towelling, Yarns, Blankets, Rugs, Twines, and other lines used by Manufacturers



Dominion Textile Co., Limited
MONTREAL

41,000,000 Acres Commercial Timber in Western Provinces

It was once stated that the shingles produced annually in British Columbia if placed end to end, would make a path three times around the world. This assertion was easily based on the length of each shingle, the total number of shingles produced and the mileage of a path around the world. British Columbia has the biggest shingle production in Canada in normal times, but British Columbia is not alone among the western provinces in producing this article. Saskatchewan, Alberta and Manitoba are now among the shingle and lumber producing provinces, though in small quantity compared with British Columbia.

The shingle production of British Columbia in normal times is worth \$1,204,713, taking—the year 1913 as an example, when the value reached this figure, smaller than in some previous years but fair as comparative figures. In this same year the lumber output was worth \$16,428,218 in British Columbia and the lath output was worth \$710,808. The year's output of lumber, shingles and laths was thus valued at around \$18,000,000.

A few years ago if any Canadian intimated an output of forest products from the prairie provinces, he would have been laughed at. These provinces for many years looked upon as bald prairie and treeless, were not expected to produce a forest production, yet the figures show that in 1913 the three prairie provinces produced forest products worth over \$3,500,000. The bulk of this production was in lumber, totalling a value of \$3,463,842 with Saskatchewan in the lead.

Taking the provinces separately we find Saskatchewan produced in this one year 114,800 M. F. B. M. lumber worth \$1,908,482, and laths and shingles worth approximately \$60,000. Manitoba produced lumber worth \$946,458; shingles worth \$2,655, and a small quantity of laths. Alberta produced lumber worth \$608,902 and lath worth \$10,400. Up to the outbreak of the war the lumber industry of the three prairie provinces was showing increased production every year and lumber mills were no uncommon sight in Manitoba, Saskatchewan and Alberta.

British Columbia was the only province in the west contributing to the output of wood used in the manufacture of pulp. In 1912 this province produced 35,067 cords of this kind of wood valued at \$193,265 and the next year more than double its output with 84,173 cords valued at \$401,218. In 1914 the output in this province was 80,013 cords, valued at \$426,444. The province in three years thus added approximately one million dollars to its spending power through the production of wood used in manufacturing pulp. This branch of the lumber is practically in its infancy stage in British Columbia and is likely to show increased production in the coming years. There are only five provinces in Canada contributing products to this industry, the other four being Quebec, Ontario, New Brunswick and Nova Scotia.

The lumber industry of the prairie provinces is likely to show increased output because of the opening up of the north country. The northern portions of Manitoba, Saskatchewan and Alberta are the

(Continued on page 66).

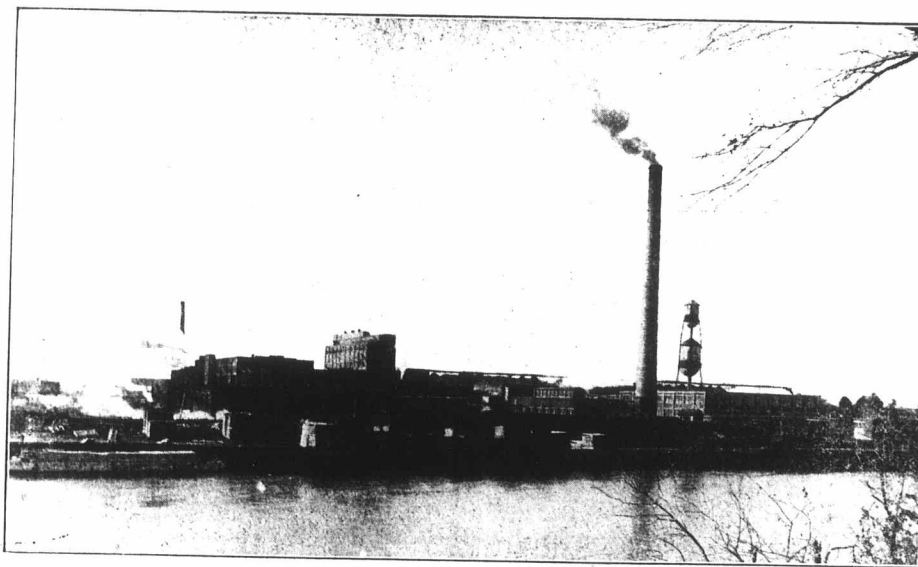
VALUE OF B. C. WOOD USED IN PULP MANUFACTURE.

1912	\$193,265
1913	\$401,218
1914	\$426,444
1915—Estimate	\$500,000

THE Wayagamack Pulp & Paper Co., Limited

THREE RIVERS, Quebec

Largest
Sulphate Pulp
Mills
in the World



Manufacturers of
Sulphate Pulp
and Kraft
Papers
Glazed and
Unglazed

AGENTS:

Carmichael & Company, Sydney, N. S. W., Australia.
R. B. Calder & Company, Durban, Natal, South Africa.
W. H. Smith & Company, Cape Town, South Africa.
Hodge Sherriff Paper Company, Imperial House,
Kingsway, London, W. C.

E. A. Flanagan, Esq., Woolworth Building,
New York, N. Y.
Hodge Sherriff Paper Company, McKinnon Building,
Toronto, Ont.

Established 10 Years Before Confederation Riordon Pulp and Paper Company Has Interesting History

From a Daily Output of 1½ Tons Paper in 1863 to 220 Tons Sulphite Pulp in 1916. Company also has Big Production of Lumber, Shingles, Clapboards and Ties. Controls Bulk of Timber Areas along Rouge River

To relate the story of the rise and progress of the Riordon Pulp & Paper Company, Limited, would practically cover the history of paper and pulp making in Canada.

Established in 1857, ten years before Confederation, the Riordon Pulp and Paper Company, Limited, forms an interesting chapter in the industrial history of Canada. It was in this year that John Riordon commenced business in Brantford, Ontario, as a trader in paper.

In 1863 he took his brother Charles into partnership when they commenced the making of wrapping paper at Lock 5 on the old Welland Canal, at St. Catharines, Ontario. The mill capacity at that time was 1 1-2 tons per day, an output which has been increased to about 30 tons per day.

In 1867 they built what was at the time regarded as one of the finest paper mills in America at Levels, 16, 17, 18, 19, 20 of the Old Welland Canal at Merritton, a mill which had a capacity of 10 tons per day of News and Wrapping paper. This power is the largest single holding on the Canal.

In the early 70's, the Riordons were among the first on this continent to undertake the making of groundwood pulp, newspaper up to that time being made from straw pulp and rags. In 1885 John Riordon died and his son, J. G. Riordon succeeded to his interests. It was at this time that Charles Riordon became the active head of the Company.

In 1887, Charles Riordon in conjunction with the late Governor Russell of Massachusetts brought the sulphite pulp process to America under patents of Dr. Kellner of Vienna. The Company built a sulphite mill of 30 tons capacity at Merritton which is still in operation.

As pioneers in the manufacture of sulphite fibre the Company has established a reputation as the leading experts in this pulp throughout the North American paper trade, and their unbleached sulphite is recognized as the standard of excellence.

In 1871 Messrs. Charles and John Riordon purchased the Toronto Daily Mail which, now known as the Toronto Mail and Empire, has become one of the biggest daily newspapers in the Dominion and is still owned by the Riordons.

In 1898 the Company built the Sulphite pulp mill at Hawkesbury, Ontario, with a capacity of 75 tons per day and at the same time they bought 600 square miles of limits along the Rouge River from the Honorable J. K. Ward. These are among the most valuable limits in the Province of Quebec.

In 1910 the Company absorbed G. H. Perley & Company, who owned most of the remaining Timber Limits in the Rouge watershed, the saw mill at Calumet, Quebec, with a capacity of 75,000 feet of lumber per day and clapboards, shingles, and ties, and three saw-mills in the Rouge district with a capacity of 25,000 feet of hardwood lumber each.

In 1911 the Calumet mill was destroyed by fire, but the Riordon Company, which since 1857 had been continuously expanding their operations, rebuilt the mill in steel and concrete and increased its capacity to 125,000 feet of lumber per day, in addition to a big capacity for ties, shingles, and clapboards.

The most modern sawing and handling machinery procurable is used at this plant.

Since 1913 the Merritton mill has been rebuilt in steel and concrete and the developments of this year include the addition of a bleaching plant and an increase of the capacity of the mill to 40 tons of belached sulphite per day.

This year the Company acquired a plant at Haileybury in Northern Ontario which saws 30,000 feet of lumber per day and barks 200 cords of pulpwood per day, the latter being used at the Merritton Mill.

In 1913 the Company ceased producing paper, confining its production in this department to sulphite pulp of which their total capacity is now 220 tons per day.

The next two years will see the completion of the Merritton and Hawkesbury plants which will mean a sulphite pulp capacity of approximately 250 tons per day.

The war has so increased the consumption of pulp in Europe and decreased its production that the supply to America has fallen from 400,000 tons per year to about 100,000 tons, and as the consumption in America has increased the result has been a pulp scarcity all over the world, resulting in a natural demand for the Canadian product. It is quite probable that the new uses of pulp, apart from the manufacturing of paper, necessitated by the war, will remain so great after the war, that the demand for pulp through these new uses will mean a continuously increasing market, these new uses comprising substitution for cotton, which is normally worth three times as much as sulphite pulp.

The sulphite fibre produced by the company is of the highest grade only and is used in the manufacture of book and magazine papers, writing paper and paper for office use. Very little of it goes into news, wrapping, board or other cheap papers.

The Riordon Company has been so improving its plant and methods of scientific control that its products will soon be equal if not superior in quality to any in the world, especially the product of Germany, and will permanently displace in the American markets the European products which have heretofore filled these markets.

Such in a nutshell is the brief history of the Riordon Pulp and Paper Company, Limited, a history which has been one of the important chapters in the industrial progress of Canada; one of the few firms, which established before Confederation, is still doing business, growing as Canada grows, and keeping always in the

van of progress. Though old historically, the Riordon Pulp and Paper Company, Limited, is most modern and up-to-the-minute in its building construction, machinery and equipment, and ever adding to its output to meet the increasing demands.

Canadian Sulphite Pulp.

The advantages of this Canadian sulphite pulp are that it is produced at a lower cost than the European product, it is produced in the very midst of its market and its plants are situated at a comparatively short rail haul to all the large American and Canadian paper-making factories ensuring the great advantage to the consumer of a quick and reliable service and precluding the necessity of his having to carry heavy stocks as must be the case if he is dependent for his supply on far distant Europe.

The Company's officers are:

C. Riordon, President.

Carl Riordon, Vice-President and Managing Director.

Chas. E. Read, Secretary.

F. B. Whittet, Treasurer.

Charles Riordon, the President, has been largely responsible for the success and progress of the Company. He is also President of the Mail Printing Company, Toronto, publishers of the Mail and Empire; of the Niagara Falls Suspension Bridge Company, over which the Grand Trunk double track railway crosses the Niagara River; and of the Buffalo Contractors Plant Corporation.

Carl Riordon, a son of Charles Riordon, is Vice-President and Managing Director of the Company, and is also Vice-President of the Mail Printing Company, of Toronto. He is also a Director of the Niagara Falls Suspension Bridge Company, and of the Buffalo Contractors Plant Corporation.

Other Directors of the Company include Charles E. Read, of Ottawa, Secretary, who is also a director of the Hull Lumber Company; J. S. Douglas, Business Manager of the Mail Printing Company. S. B. Pemberton, of Montreal; W. G. White, of New York. The company has branch offices at its various plants, including Hawkesbury, Merritton, Calumet, Haileybury, St. Jovite, Annonciation.

The head office of the Company is situated in Montreal at No. 1 Beaver Hall Square, the property of the Company, and Mr. T. J. Stevenson, Montreal, and Mr. Geo. E. Challes, Toronto, well-known figures in the trade, are the Sales Managers of this firm.

C. B. Thorne, Hawkesbury, is manager of pulp mills and also chief engineer of this company, while Lieut.-Col. J. B. White, of the 242nd Forestry Battalion is superintendent of logging and sawmills. Mr. E. Inwood, Montreal, is purchasing agent of the company.

In 1917 the Company will celebrate its sixtieth anniversary.

The paper in this edition is made from pulp supplied by the Riordon Company.

(Continued from page 64).

most thickly wooded portions of these provinces and these districts are now being opened up by the new railway development. Very little lumber is imported into the north for building operations because of the ease with which lumber can be procured in these newly opened areas of the north.

The prairie provinces will not suffer materially in their forests industries because of the war, due to the limited production of these provinces which is all in demand for home use. But British Columbia has felt the effect of the war, which has caused not only a cessation of building throughout the west and indeed throughout the world, but has also so raised the freight rates for ocean tonnage and caused such a scarcity of ship-bottoms, that the exporting of lumber from this province to foreign countries has been seriously hindered. This has resulted in a decrease in the production within the province for the past two years of lumber, shingles and laths. More recently there has been an improvement in the trade, but both the home and export markets are still very limited and will remain so until the close of the war in Europe.

In the prairie provinces the lumber industry is only a side line, while in British Columbia it is one of the basic industries of the province. British Columbia has the largest shingle output in Canada and the second largest lumber output. The lath production in 1913 was equalled by New Brunswick and Quebec and Ontario.

According to Dominion Government estimates there are 41,000,000 acres of commercial timber in the western provinces, of which 30,000,000 acres are in British Columbia and 11,000,000 acres in Manitoba, Saskatchewan and Alberta. There are 2,474,240 acres of forest reserves in British Columbia under provincial control and 27,931,240 acres of forest reserves on lands under federal jurisdiction in Manitoba, Saskatchewan, Alberta and British Columbia. The area of 2,474,240 acres in British Columbia comprises only the areas set apart as provincial parks and reserves for water purposes. In addition to this area, all non-alienated timber lands in British Columbia are reserved; their area is not definitely known, but it exceeds 20,000,000 acres. Besides the 30,000,000 acres of alienated and unalienated commercial timber ready for the saw, there are esti-

ated to be 35,000,000 acres of second growth, which in from 50 to 70 years will produce merchantable timber.

The Dominion forest reserves in the west are distributed as follows:

	acres.
Manitoba	2,606,400
Saskatchewan	6,195,706
Alberta	16,711,776
British Columbia	2,417,600

This total includes also the Dominion parks located within the boundaries of the forest reserves. The largest single reserve is that of the Rocky Mountains in Alberta which occupies 13,373,860 acres. In most cases the present administration of the forest reserves consists of little more than a service for the prevention and control of forest fires, chiefly by the appointment of forest rangers, the enforcement of fire-prevention regulations and the provision of fire-fighting appliances; but measures have been taken in the past year or two, especially by the education and training of forestry experts, to bring the forest areas of Canada gradually under more scientific and remunerative management.

A. Kilpstein & Co., Ltd., Valuable Canadian Industry.

The A. Kilpstein Co., Limited, is one of Canada's valuable industries dealing in anilines, dyestuffs, chemicals, varnish gums and tanning materials. The company which had its start in Switzerland has been very useful to Canada, and they have equipped their Montreal establishment with a stock and service which is of the highest order. The shades are matched and the dyes tested promptly in their laboratory and not a thing has been left undone which has been necessary to supply the growing demands of the Canadian trade. Their Montreal office is at 12 St. Peter Street.

American Bank Note Company.

The American Bank Note Company's present organization is the result of a century of development. During that time the greater part of the paper money used by the Governments of North and South America has been prepared by this Company and in its clientele are also included many Governments of Europe and Asia. A few years ago China appointed a commission to investigate the best manner of conducting her finances and the report of the commission included a recommendation that the American Bank Note Company be selected to prepare whatever bank notes and other securities should be required. Over thirty years ago Japan made the same inquiry, and her first issue of bank notes was prepared by this Company.

Fifty years ago, before Confederation, the various Provincial Governments and the old Canadian banks were ordering bank notes, stamps, and revenue certificates from the American Bank Note Company. This formed the basis of the Canadian business, which continued to grow in importance, until in 1897 the Company was incorporated under a Dominion Charter and erected a fine fireproof plant in the City of Ottawa. The first plant was comparatively small. A few years later it was doubled; then later the larger plant was doubled, and two years ago another large addition was erected which more than doubled the existing plant at that time. Improved equipment and modernized processes have kept pace with the growth of the business, with the result that bank notes and securities for the Dominion Government, the Provincial Governments, municipal corporations, banks, railways and financial institutions of Canada are prepared to-day by the American Bank Note Company in Ottawa, as carefully, as economically and with as great security as anywhere in the world.

A century's concentration of mechanical genius has simplified many of the problems in connection with the manufacture of securities. The American Bank Note Company's plant has profited by each new invention. The service which it offers is that of the most expert staff and the most highly perfected equipment obtainable.

Provincial Paper Mills Co. Limited

Toronto, - Canada

MILLS AT

Thorold, Georgetown and Mille Roches, Ontario.

Largest Manufacturers in Canada

Book, Writing and Coated

PAPERS

Hold up to the Light

Your Stationery
and Ledger Papers

and make sure
they contain this

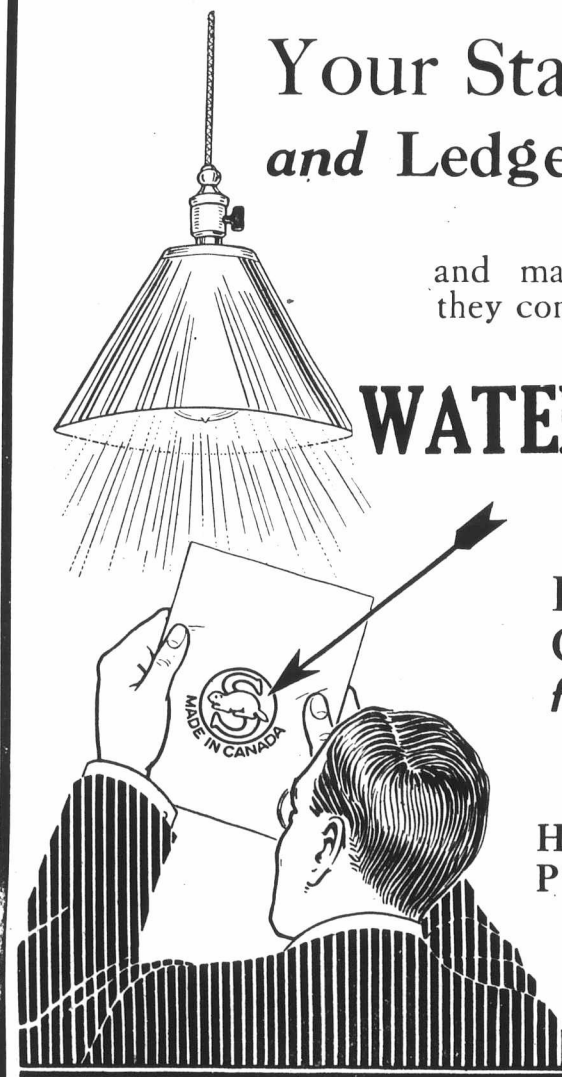
WATERMARK

It is your
Guarantee
for Quality

Made in Canada by

Howard Smith
Paper Mills,
Limited,

Mills at
BEAUHARNOIS



St. Maurice Paper Company Limited

Head Office:

522-524 Board of Trade

MONTREAL

Mills at Charlemagne, Montcalm, St. Gabriel de Brandon, Three Rivers, Cap Madeleine, P. Que.

New Sulphite & Paper Mills under construction at Cape Madeleine, Q.

Manufacturers of Groundwood

::: ALSO :::

Sawn and Dressed Lumber of every description

Laurentide Company, Limited

MILLS AT GRAND
MERE, Que.

General Sales Offices;
71 CANADA LIFE BUILDING
MONTREAL.

—MANUFACTURERS OF—

Ground Wood Pulp
Sulphite Pulp

Newsprint Paper
Pulp Board

LONDON OFFICE:

CANADIAN BOARD AND PAPER COMPANY
WINDSOR HOUSE, KINGSWAY, W.C.

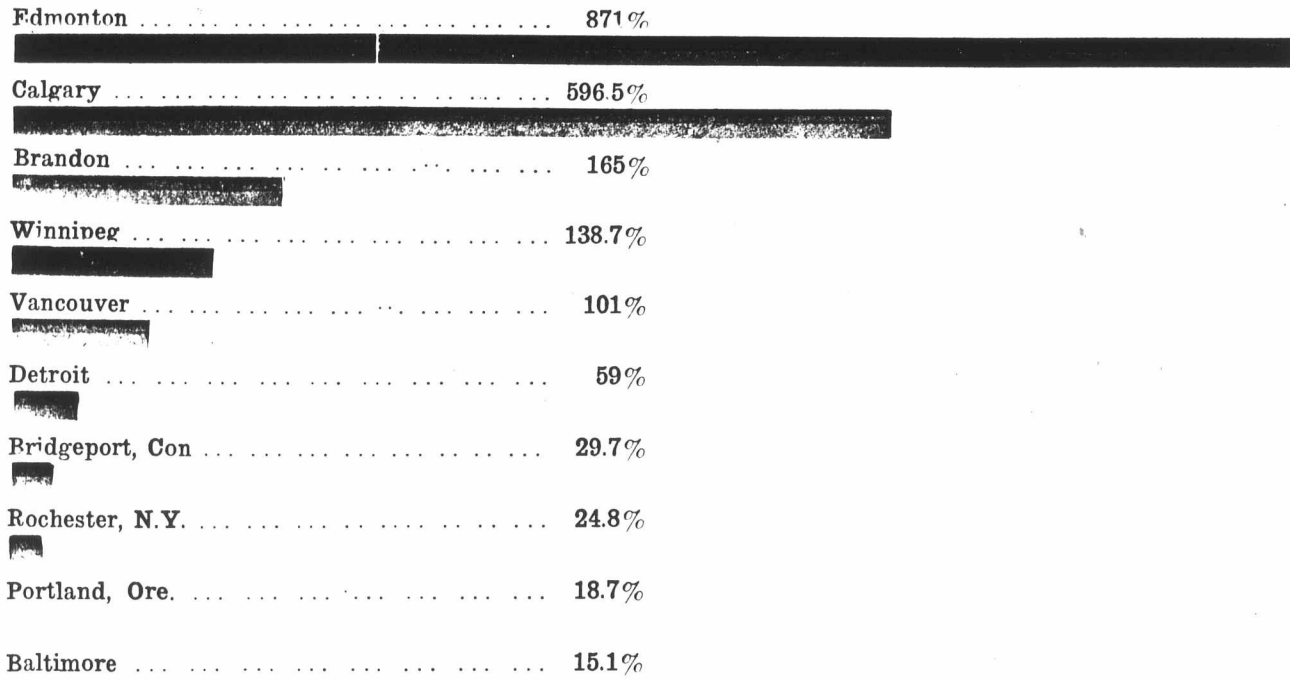
WESTERN CITIES IN COMPARISON.

The Following Figures Show in Tabulated Form the Five Year Percentages of Increase in the Industrial Output of Several Western Canadian Cities, in Comparison with Leading United States Cities as Indicated in the Accompanying Chart.

Edmonton	871%
Calgary	596.5%
Brandon	165%
Winnipeg	138.7%
Vancouver	101%
Detroit	59%
Bridgeport	29.7%
Rochester, N.Y.	24.8%
Portland, Ore.	18.7%
Baltimore	15.1%

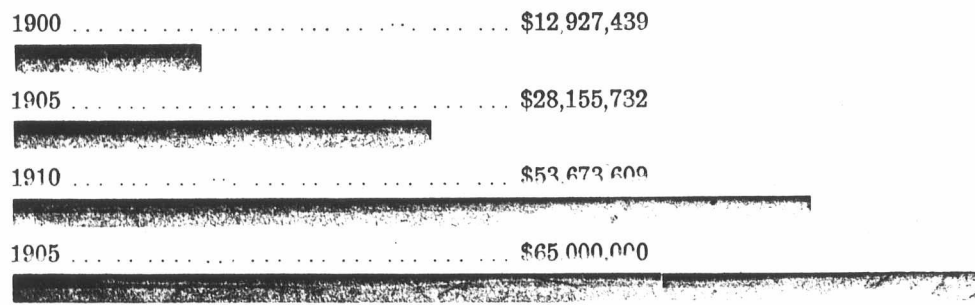
INDUSTRIAL INCREASES IN THE WEST.

The following chart shows the percentages of increase in five years in the values of manufacturing products for several cities in western Canada in comparison with leading industrial cities in United States.



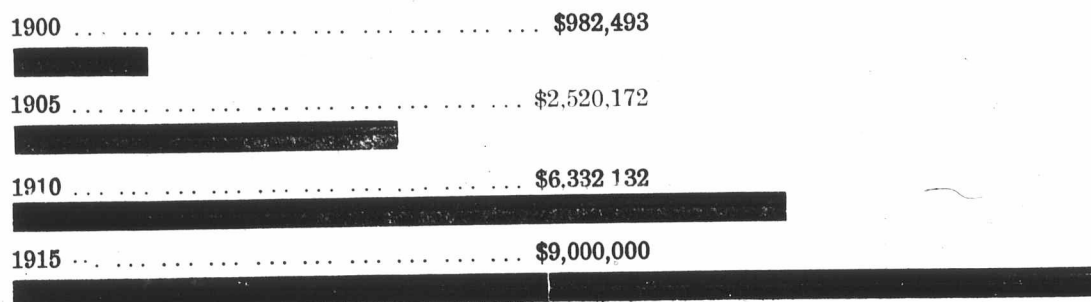
MANITOBA INDUSTRIAL OUTPUT.

The following chart shows the big increases in the industrial output of Manitoba since 1900. The 1915 figures are estimates based on natural increase, making allowances for any reductions which might have been possible during this period.



INDUSTRIAL OUTPUT OF SASKATCHEWAN.

The following chart shows the industrial output of Saskatchewan with five year increases. The 1900 figures are taken from the combined figures of Saskatchewan and Alberta in which year the two provinces were combined in the industrial census. The 1915 figures are based on natural increases.



Canadian Explosives Limited

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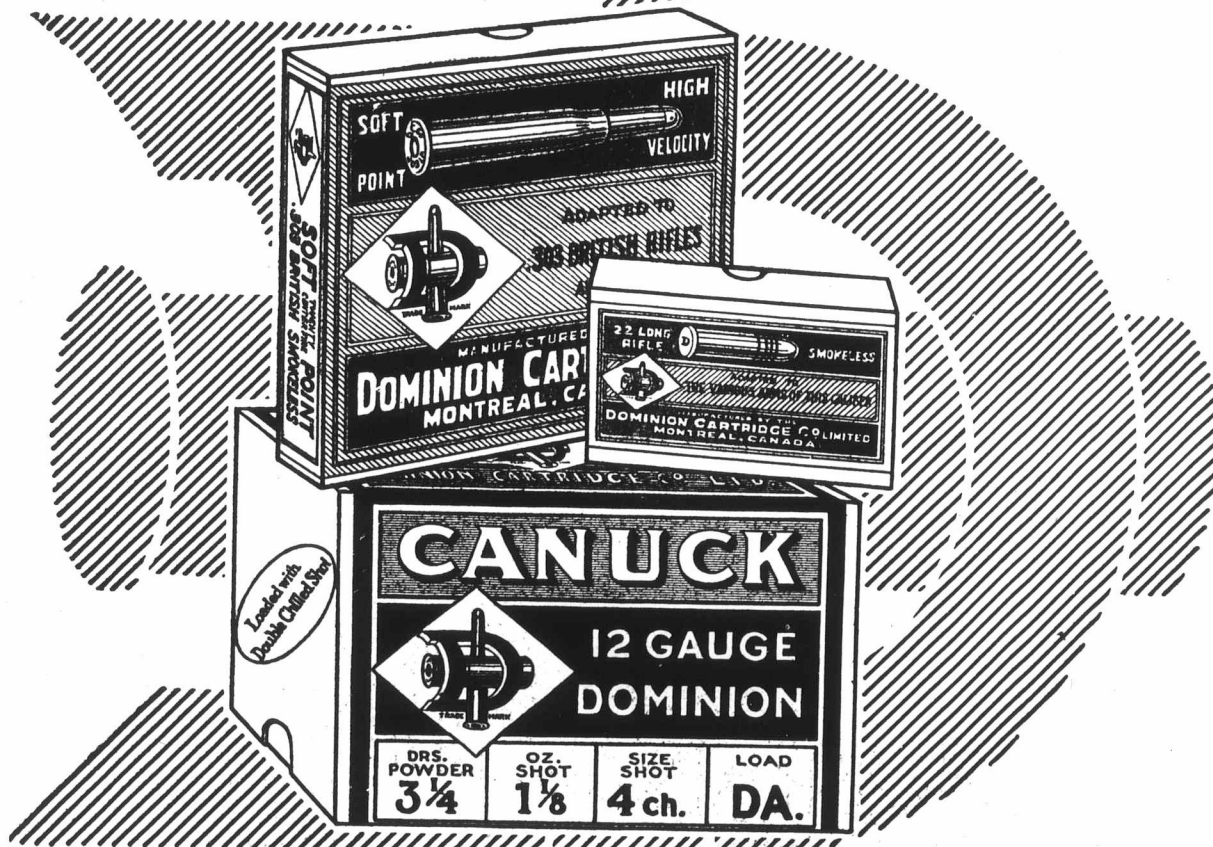
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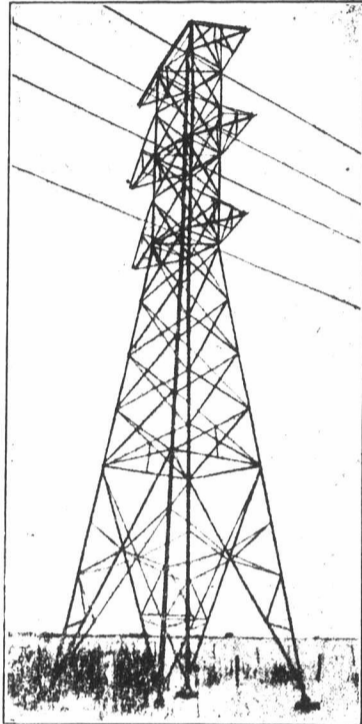
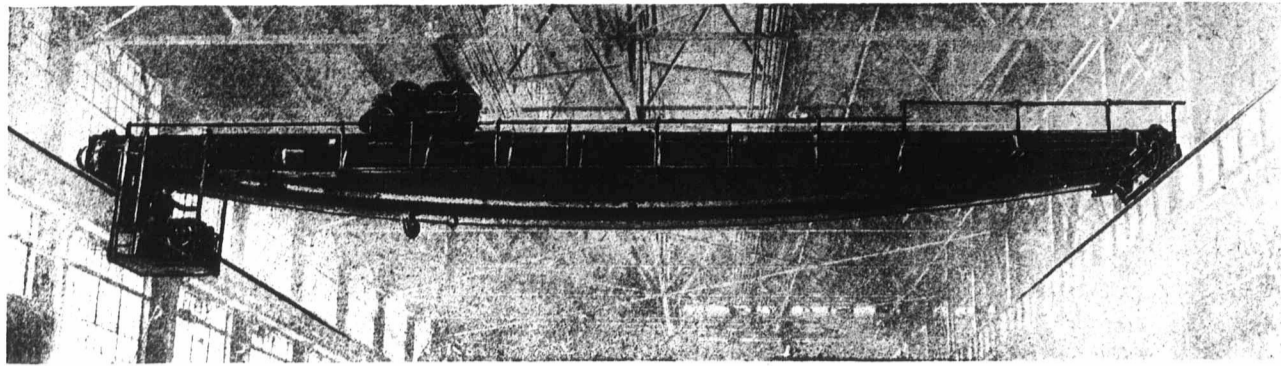


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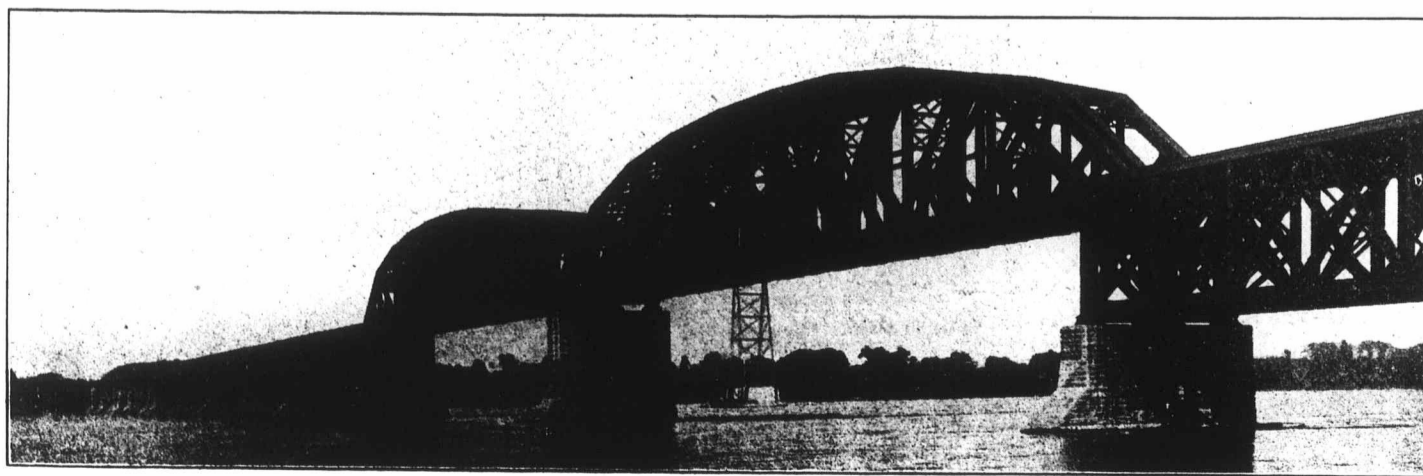
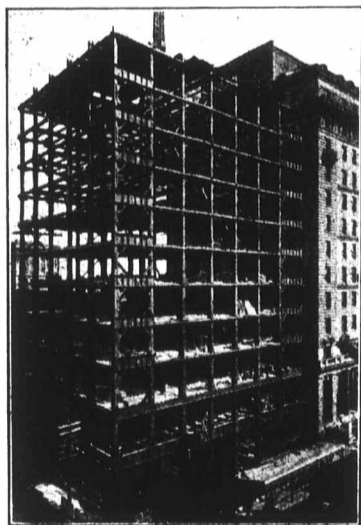
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The Statistical Story of Winnipeg

Progress of City Shown in Increased Population, Increased Bank Clearings, Customs Revenue, Building Records, Post Office Receipts and in Factory Output. From Village of 215 Inhabitants in 1870 to one of Canada's Three Biggest Cities in 1916.

No more interesting statistical story in Canada can be shown than that of Winnipeg, which in a quarter of century has grown from a small city to one of Canada's three largest cities. The following tables show in a brief and condensed way, the progress and expansion of Winnipeg.

Winnipeg's Population.

(As shown by assessment records).

1870	215
1874	1,869
1885	19,574
1898	39,384
1902	48,411
1903	56,741
1904	67,262
1905	79,975
1905	101,057
1907	111,729
1908	118,252
1909	122,390
1910	132,720
1911	151,958
1912	166,553
1913	184,730
1914	203,255
1915	212,889

Percentage Revenue From Street Railway (5%) (Also Car Tax).

1892	\$ 200
1895	680
1900	840
1902	10,946.44
1905	29,562.52
1910	67,893.70
1911	86,740.98
1912	111,448.74
1913	125,288.96
1914	122,486.90

Post Office Revenue.

1906	\$ 418,912
1908	555,466
1910	806,000
1911	972,530
1912	1,017,000
1913	1,227,258
1914	1,250,000
1915	1,752,587

Customs Revenue.

1908-09	\$ 3,345,594.51
1909-10	5,001,610.75
1910-11	6,491,183.12
1911-12	8,077,043.29
1912-13	11,095,619.91
1913-14	9,215,345.83
1914-15	5,066,023.06
1915-16 (9 months)	4,365,176.95

Bank Clearings.

1906	\$ 504,585,914
1907	599,667,576
1908	614,111,801
1909	770,649,322
1910	953,415,281
1911	1,172,762,142
1912	1,537,817,524
1913	1,634,977,237
1914	1,370,960,806
1915	1,530,683,124

Winnipeg's Factory Output.

1900	\$ 9,606,248
1905	18,983,248
1910	39,400,608
1914	43,000,000

Over 400 factories in 1914 with 20,000 hands employed, and \$50,000,000 invested.

Winnipeg School Statistics.

Year	No. of Teachers.	No. of Build'gs.	Value of Buildings, Sites, etc.	Attendance.
1871	1	1	.....	35
1876	4	2	\$ 3,500	423
1886	49	11	220,000	2,831
1903	140	18	750,000	9,500
1905	192	21	1,071,701	11,675
1910	340	33	2,800,000	17,738
1913	531	40	5,032,589	22,364
1914	566	44	5,620,619	25,814
1915	580	45	5,856,356	27,514

Building Records.

1900	\$ 1,441,863
1903	5,689,400
1905	10,840,150
1910	15,116,450
1911	17,550,400
1912	20,563,750
1913	18,357,150
1914	12,160,850



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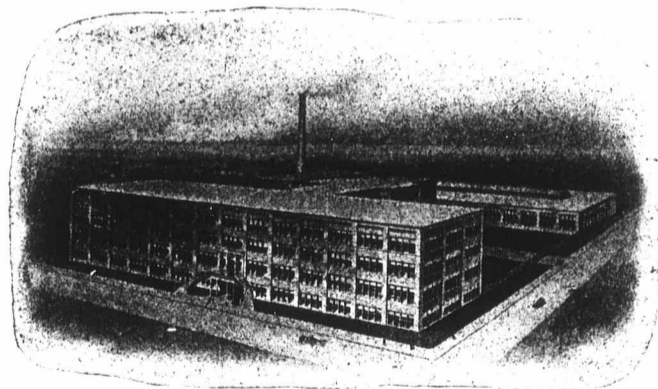
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Mining in the Porcupine District of Northern Ontario

Of the newer mines of the Porcupine Gold District in Northern Ontario none probably is attracting as much attention at the present time as the Davidson, and this on account of the fact that, although the property was only reopened last summer, recent developments have brought it from the "prospect" into the "mine" class.

When work was resumed on the Davidson last June the shaft was down 200 feet and the ore body had been developed to a certain extent on the 100 foot level. Cross-cutting was immediately started on the 200 foot level, and the main ore body was encountered about 75 feet from the shaft. It proved to be even more extensive than on the upper level, and to date has proven to carry both tonnage and high values.

After having demonstrated the existence of the ore at a depth of 200 feet, the company set out to prove the property to depth. The shaft was continued to the 300 foot level and the vein was picked up at this point only a few weeks ago. Development has not yet proceeded to the degree where a comparison with the upper levels is warranted, but it has already been shown that the ore is similar in character to that on the 100 and 200 foot levels, and it is believed that, not only will the values be maintained, but also a very considerable tonnage will be put into sight.

An extensive working programme is being followed, the idea being to develop the ore reserves to the greatest extent possible before a mill is installed. Arrangements are already being made for continuing the shaft to greater depth, and it is probable that sinking will be continued to the 500 foot level and lateral work started at that depth. With an extensive high grade milling ore body proven on the three levels, the company is in a splendid position as far as mine conditions go, and if the same indica-

tions are met with as greater depth is attained, there is no doubt in the minds of those who have inspected the property that the mine will be a producer of great merit.

Consideration is now being given to the matter of installing a mill, and it is probable that this will be done next spring when a substantial producing basis should be attained. An attractive offer has been made for a large block of treasury stock, and, if this is accepted, the company will have available several times the amount necessary to finance the purchase and installation of a large milling plant. At the present time the treasury is in shape to carry the development programme to completion, and the present outlook is that this will prove what has been contended for a long time, namely, that Davidson, having the same formation and characteristics as the Hollinger, will eventually be numbered among the big mines of the Porcupine camp.

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THE PEACE RIVER COUNTRY.

Frequently referred to as "The Last Great West," the Peace River country offers unlimited opportunity to the new settler. This territory embraces northern Alberta and northern British Columbia and experiments have shown that grain and root crops ripen earlier than in the older settled parts of the west. Millions of acres of land are available to settlers in the Peace River country, suited to every kind of agricultural endeavor, including live stock ranching and grain growing.

The railway development of the Peace River country will put it in closer touch with Winnipeg and points east, and with Vancouver, Prince Rupert and points west. Despite the war there has been a big increase in the railway mileage of the Peace River country since 1914, giving it close connections with the east and west. The Peace River country has already produced record crops and is likely to prove a big attraction to immigrants after the war.

Though still in its infancy in development, the increase in rural population in the Peace River country has been very satisfactory. A large number of American settlers have taken up homesteads since the commencement of the war.

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Western Manager

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in 2,000,000 shares of a par
value of \$1.00 each.

In treasury 1,000,000 shares.
Present issue 400,000 shares
of treasury stock underwritten
part of which is now
being offered for sale.

PROPERTY.—The company owns in free simple the group known as the Davidson claims, comprising 120 acres, located in north-eastern Tisdale Township, about 1½ miles almost due north of the town of South Porcupine, Porcupine mining district.

FORMATION.—The official map which accompanied the Ontario Government Blue Book 1915, Vol. 24, Part 3, shows that the formation is identical with that of the Hollinger Consolidated and the other producing properties in the Hollinger section.

EQUIPMENT.—The property is fully equipped, the plant comprising three 50-H.P. boilers, an Ingersoll-Rand compressor, hoist, a complete electric light outfit, etc. The plant is sufficient to continue development work to the 1,000 foot level.

DEVELOPMENT.—The company has pursued an aggressive development policy, and has made rapid progress. The main shaft is down 316 feet and levels opened up at 100, 200 and 300 feet. On the 100 and 200 foot levels considerable lateral work has been done and a large tonnage of high grade ore put in sight. The No. 2 shaft is being sunk on the No. 2 vein, and is down 35 feet. It will be continued to a depth of 100 feet before lateral work is commenced.

The Davidson is a mine not a prospect, and is in the same position today that Hollinger was six years ago. Hollinger in the meantime has advanced in value from \$3.50 a share to \$30.75.

The time to buy DAVIDSON IS NOW, not when the producing stage has been reached next spring. The market price of the shares is a little above 50 cents—we believe they will not be available under the dollar mark in six months' time.

Buy now for big profits.

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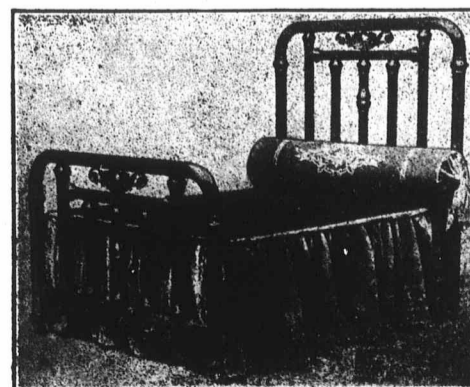
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MONTREAL.

Grain Act of the Dominion of Canada. What It Provides and What It Covers.

By ROBERT MAGILL, M.A., Ph.D.

Chief Commissioner Board of Grain Commissioners for Canada.

The Canada Grain Act, passed in 1912, is an Act that codifies and extends the various Grain Acts passed by the Parliament of Canada from 1906 to 1912.

The substance of the Grain Act may be summarized under these heads:

1. Legislation re the marketing of grain at country points.
2. Legislation re inspection of grain.
3. Legislation re weighing of grain.
4. Legislation re terminal elevators.
5. Legislation re eastern elevators.
6. Legislation re Board of Grain Commissioners.

MARKETING GRAIN AT COUNTRY POINTS.

Flat Warehouses.

When grain was first shipped from Western Canada, it was hauled either in sacks or loose by the farmer to flat warehouses, built by grain dealers at points along the railway line. The grain was bought by the dealers, stored in the warehouse and shipped in car lots for sale in Winnipeg. Elevators were introduced shortly after the year 1880. They were designed to take advantage of the flowing property of grain in bulk, and their equipment enabled them to handle the grain much more easily than was possible with the primitive warehouse. They grew rapidly in number while the warehouse practically disappeared. At present there are in Western Canada 2,995 licensed country elevators and only 19 warehouses.

The Loading Platform.

The elevators gave rise to profound dissatisfaction among the farmers, and this resulted, among other things, in the introduction of loading platforms. The platform is a wooden structure on a siding onto which a farmer can drive his team, and from which he can shovel the grain into the car. When the grain has been loaded, he can either sell it on the spot as track grain, or consign it to a commission firm in Winnipeg, to be sold for his account.

The Elevators.

There are, as stated, 2,995 elevators licensed in the three provinces. Their total storage capacity is estimated at 94,322,000 bushels. None of them are owned by the Dominion Government or the railway companies, and in Alberta and Saskatchewan none of them are owned by the provincial governments. The Manitoba Government owned and operated a line of elevators for a time, but subsequently leased them to a company. Two or three municipalities experimented with them also, but not with the happiest results. With these exceptions all the elevators are owned and operated by commercial companies, or by farmers' co-operative companies. When the farmer takes his grain to an

elevator he can either sell the grain to the operator, in which case it is called street grain, or he can hire a bin in the elevator to keep his grain distinct from all other grain, in which case it is called special binned grain, or he can store it with other grain of the same grade. If he stores the grain either in a special or general bin, he arranges with the railway company for a car, and the elevator loads the grain into the car to his order. When the grain

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is loaded he can either sell it on the spot as track grain or send it forward consigned on commission. The farmer hauls the grain unsacked and bulk handling is universal.

Dissatisfaction and Legislation.

For several years the farmers were generally dissatisfied with the treatment they received from the elevator companies. They accused the elevators of all sorts of malpractices; of unjust weighing and grading; of paying prices that were too low and exacting charges that were too high; of not cleaning the grain; of refusing to give special bins; and of pooling profits, killing competition, and forming monopolies. Complaints were directed also against the railway companies for discrimination in distributing cars, and against buyers of grain for taking advantage in various ways of the producer. This dissatisfaction led to legislation. From time to time Parliament passed measures regulating the business of handling grain. This legislation has been codified in the Canada Grain Act, and it includes provisions about the construction of platforms, the operation of elevators, the distribution of cars, and the trading between the farmers and the track buyers and commission merchants. It may be summarized as follows:

Platforms.

The Act provides for both the construction of new and the improvement of existing platforms. Upon an application from ten resident farmers, the Board of Grain Commissioners investigates the need, and it has the power to order the railway company concerned to build or enlarge the platform.

Elevators.

Every person or company operating a country elevator must take out an annual license form, and file a bond with, the Board. The Board can suspend or dismiss the operator, and withdraw the license for proven violation of the Act. The elevator charges and tariffs are regulated by the Board, and the storage and purchase tickets to be given the farmer are prescribed in the Act. The elevator scales must be inspected by the Inland Revenue Department, and there are paragraphs covering the receiving, cleaning, weighing, grading, storing, special binning and shipping of the grain. The plant, operations, books and records of the elevator are all subject to the inspection of the Board, which

can investigate complaints, subpoena witnesses and books and administer the oath.

Cars.

In regard to the distribution of cars the Act is based on the principle that every shipper of grain is to count for one and nobody for more than one. The elevator company and the individual farmer are treated equally. Each is entitled to a car in turn and nobody is entitled to more than a car. The machinery for the application of this principle is prescribed, the car order book, and the method of using it. Provision is made for special cases, such as elevators that are in danger of collapsing, seed grain, damp grain, and heating grain.

Track Buyers and Commission Men.

These must take out an annual license and give a bond as security. They must use such forms in their dealings with the farmers as the Act prescribes, and they are under the control of the Board.

The administration of the Act is in the hands of the Board of Grain Commissioners, and the Board has a number of inspectors whose whole time is given to inspecting the elevators, interviewing farmers, hearing complaints and reporting to the Board.

LEGISLATION RE INSPECTION.

The Grades of Grain.

The Canada Grain Act divides grain into five general classes, which it names "no grade," "condemned," "rejected," "commercial grade," and "statutory grade."

"No grade" means all good grain that has an excessive moisture, being tough, damp, wet, or otherwise unfit for warehousing.

"Condemned grain" means all grain that is unsound, musty, dirty, smutty or sprouted, or that contains a large admixture of other kinds of grain, seeds or wild oats, or from any other cause is unfit to be classed under any of the recognized grades.

"Commercial grade" means grain that because of climatic or other conditions cannot be included in the grades provided for in the Act. More particularly it means that the grain of one year may vary from that of the preceding year, and that a proportion of it, therefore, cannot be dealt with under the grades laid down in the Act, and must be

provided for by grades defined by the Standards Board.

"Statutory grades" means grain of the highest grades, which are defined by Parliament, embodied in the Grain Act, and do not vary with the crop. There are four of these grades for Manitoba spring wheat, three each for Alberta red and white winter wheat, and two for Alberta mixed winter wheat. In the same way there are statutory definitions of the highest grades of oats, barley, rye and flaxseed. Thus the statutory definitions can only be changed by Parliament. They do not vary with the crop, but are constant. The commercial grades, on the other hand, are fixed by the Standards Board, and may vary from year to year.

Where Grain is Inspected.

Grain grown in the West and shipped east is first inspected at Winnipeg and then at the terminal points, Fort William and Port Arthur. The methods of inspection and the relation between the inspection at Winnipeg and the terminal point are dealt with in detail below.

Number of Grades.

Parliament has defined four grades of western spring wheat: One hard, No. 1 Northern, No. 2 Northern and No. 3 Northern.

The Standards Board has also defined three grades: No. 4 Northern, No. 5 Northern, and No. 6 Northern.

But wheat of any of the six grades of Northern may fall under the general categories of "no grade," "condemned," or "rejected." During the present season for example, there are five divisions of No. 1 Northern: No. 1 Northern, No. 1 Northern damp, No. 1 Northern smutty, No. 1 Northern rejected on account of seeds, No. 1 Northern rejected on account of heated.

The subdivision applies also to each of Nos. 2, 3, 4, 5 and 6. This gives 31 grades of western spring wheat alone, and in the same way there are 30 grades of western winter wheat, 30 grades of oats, 15 of barley and 15 of flax.

Importance of Grades.

The grain is stored in the terminal elevators in accordance with the grades, grain of the same grades being binned together. Bulk storage by grades undoubtedly cheapens the cost of handling. The volume of grain produced in Western Canada

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is such that to keep separate every lot would be a practical impossibility. But the grain is not only stored by grade, it is also sold wholly by grade. In this respect Western Canada is unique. The Grain Act theoretically permits, but really prohibits the buying and selling of grain, except upon certificates of grade, for while a man may sell on sample, the Act refused those storage facilities which sample trading requires. The grade, therefore, is not merely the basis of storing, it is also the basis of trading the grain.

While not under the Civil Service Commission the grain staff is administered on a Civil Service basis. No one can be appointed as inspector or deputy inspector without passing examinations conducted by a board of examiners, with the aid of the Chief Inspector of the Dominion.

The examinations are conducted annually, and they are thorough practical tests of ability to grade. Usually, though not always, the candidates are men who have been working as samplers, track foremen, weighmen, etc., and usually not more than 50 per cent of the candidates succeed in passing. After passing the examination, the candidate is appointed on the recommendation of the Chief Inspector. Neither in the examination, the recommendation, nor the appointment have political considerations any place, and this applies throughout the service. The Western Division runs from the Great Lakes to the Pacific, and the Eastern Division from the Great Lakes to the Atlantic; but the law and the practice are the same in both. As the varieties of grain grown in the west are different from those grown in the east, the inspectors of the one division have nothing to do with the grain grown in the other division, the Chief Inspector alone has jurisdiction in both.

Re-Inspection.

If the owner of the grain, or his representative, is dissatisfied with the grade given by the Winnipeg inspector, he can call for a re-inspection free of charge by the inspector or the Chief Inspector. If the parties interested are still dissatisfied they can appeal to the Survey Board.

Survey Boards.

In each inspection division there are two survey boards. In the Western there are the Calgary and Winnipeg boards, and in the Eastern there are the Toronto and Montreal boards. West-grown grain can only be surveyed by the Western boards, by the

Calgary board if the grain grows west of that point, and by the Winnipeg board if the grain grows east, north or south. East-grown grain can only be surveyed by the Eastern board. Western grain, for example, received at Toronto or Montreal, cannot be surveyed by the Eastern boards; the sample for the survey must be sent to Winnipeg.

The Survey Boards are all appointed in the same way and all exercise the same functions. The members are recommended in the Western Division by the Boards of Trade of Calgary and Winnipeg, and the Ministers of Agriculture of the three grain-growing provinces, and in the Eastern Division by the Boards of Trade of Toronto and Montreal, and they are all appointed by the Board of Grain Commissioners. The rules and regulations of the survey boards are made by the Grain Commissioners. If the identity of the grain in dispute has been lost, no appeal can be made. If the inspector's grade is confirmed, the owner of the grain pays for the survey, otherwise he does not. The verdict of the survey board is final. Once created, a survey board is independent during its period, and in appeals its decision is supreme.

Up till the present the main inspection points in the Western Division have been Calgary, for grain going west of that city, Duluth for bonded grain going south, Winnipeg for all east-going grain, and Fort William and Port Arthur for grain going out of the terminal elevators.

All east-going grain passing through Winnipeg is inspected at Winnipeg. The cars are sampled there, the grain is inspected there, and the Winnipeg Inspection Office is the headquarters of the inspection. The prime object of grading is to classify the grain for bulk storage in the terminal elevators. The individual lot is merged in the bin containing grain of the same grade, and the bulk store by grade lessens the cost. As the storage is at Fort William, the inspection at Winnipeg facilitates the unloading of cars and the work of transportation. Were the grain inspected at Fort William, and not at Winnipeg, the cars would have to be held, pending, not only the sampling, inspecting and issuing of certificates, but also possible demands for re-inspection and appeals. By inspecting at Winnipeg time is given for all of these, and also for the sale of the grain by the time it reaches the elevators. The Winnipeg inspection governs the storage into the elevators except in cases of cars loaded too full

for proper sampling at Winnipeg, cars that have been plugged, cars that have gone out of condition, or cars upon which re-inspection has been asked, or an appeal to the survey board from the verdict of the inspector demanded.

If a re-inspection is asked it is given at Fort William without any additional charge. If an appeal is made to the survey board, the car is re-sampled at Fort William, and the survey is held on either the Winnipeg or the Fort William sample.

Inspection Out of the Terminal Elevators.

The grain is all inspected as it is being loaded out of the elevators into the vessels or cars, and the certificate given by this inspection is the final certificate, which accompanies the grain to its destination.

LEGISLATION RE WEIGHING GRAIN.

Weighing at Country Elevators.

The scales are inspected by the Inland Revenue Department and the actual weighing is done by the operator of the elevator.

The Canada Grain Act has some sections framed with the object of protecting the shipper. It provides that "persons interested in the weighing of grain at any country elevator shall have free access to the scales while such grain is being weighed." The shippers, therefore, can supervise the weighing if they choose to do so. Again, it provides a penalty for falsifying or mistaking the weights, and it provides for an investigation by the Board of Grain Commissioners.

Weighing at the Terminal Elevators.

It is at the terminal elevators that the State has done most in the matter of weighing; the weighing department has its headquarters there, and official certificates of weights are given there.

The Chief Weighmaster has charge of all weighing under the Board of Grain Commissioners. His authority in matters pertaining to weighing is similar to that of the Chief Inspector in matters pertaining to grading.

The Chief Weighmaster is also the scale inspector at the terminal point. In this way he has authority both as regards the scales and the weighing. The conditions for accurate weighing are, therefore, better at the terminal than all other elevators. The scales are larger and more frequently examined. The elevators are also more frequently examined for leakages, etc. The records are better kept, and the actual weighing, though done by an employee of

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the company, is supervised by an employee of the State.

Legislation Re Terminal Elevators.

The following is a list of the terminal elevators:

Fort William.	
Elevator.	Capacity Bushels.
Grand Trunk Pacific	5,750,000
Western	2,000,000
Consolidated	1,750,000
Fort William	1,750,000
Ogilvie	2,000,000
Canadian Pacific "D"	7,350,000
Grain Growers'	2,500,000
Eastern	2,000,000
Empire	1,750,000
Port Arthur.	
Dominion Government	3,250,000
Port Arthur	9,000,000
Horn & Co.	750,000
Thunder Bay	1,500,000
41,350,000	

Legislation Affecting Terminal Elevators.

The terminal elevators handle a large percentage of the total grain sold. Their operation affects every grain interest in the country, farmers, dealers and millers. They have accordingly been subjected to keen scrutiny, fierce criticism, and detailed legislation, and that in regard to almost every phase of their operations. Complaints have been directed against them as regards the trustworthiness of those operating them; tariffs and charges, grades and weights, their methods of storing, binning, and shipping, cleaning and drying, loaning and mixing, and their accumulation of surpluses. And the legislation governing them has been designed with explicit reference to these complaints.

It may be summarized as follows:

Licenses and Bonds and Insurance.

Persons proposing to own, lease, manage or operate terminal elevators must secure the approval of the Board of Grain Commissioners. Further, the elevators are licensed annually, and the Board can recommend the revocation of the license in case of proven violations of the law. Each licensee must file with the Board a bond to His Majesty conditioned for the faithful performance of his duties as a

terminal warehouseman, and his full and unrestricted compliance with all laws in relation thereto. And every terminal warehouseman must insure the stored grain against fire in companies satisfactory to the Board.

Tariffs and Charges.

All charges for storing, cleaning, handling and the insuring of grain, including the cost of receiving and delivering, are subject to such regulations and reductions as the Board deems proper. The charges are fixed annually. During the first week of September the companies file with the Board the rates they propose to charge during the following year, and the Board holds a public session for the purpose of hearing objections to the proposed rates.

Grades and Weights.

As set forth above, the grading of the grain both into and out of the terminal elevators is done under the supervision of the State.

Receiving, Storing and Shipping.

The Grain Act lays down certain provisions governing the receiving, storing and shipping of the grain, and the inspectors and officers of the State in the elevators see that the law is conformed with.

Cleaning, Drying, Etc.

The inspectors define what percentage of admixture should be cleaned out of the grain as received, and the actual cleaning is under their supervision. The Grain Act provides for the compensation to be paid, if any, to the owner of the grain for the screenings.

Registration and Cancellation of Warehouse Receipts.

When grain is received into store, a warehouse receipt is issued, for it to the party delivering the grain. The receipt states the place, the date, the shipping point, the name of the owner, the kind and grade of the grain, the net weight, and the car number.

This receipt is sent to the registration office of the Board of Grain Commissioners. It is then compared with the inspector's report of the cars unloaded at the elevator in question, and if found correct, it is registered. On the receipt of the bill of lading the receipt is given to the owner of the grain. The receipt is negotiable on the market, and it can also be used as collateral security for a loan from the bank.

When grain is loaded out of the elevator, the receipt representing it must be presented to the registration office for cancellation within 72 hours, exclusive of holidays, of the loading of the grain.

It is obvious that the registration records show the total quantities of the various grains by grades received into and shipped out of the elevator. The inspection and weighing departments also possess such records, so a complete check is secured.

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Annual Stocktaking.

In the month of August every year officers of the Board of Grain Commissioners take stock of all the grain in each elevator, and statements are made out showing the kinds, grades and weights of grain in each house. The registration clerks table the receipts issued and cancelled during the year, and the surpluses and shortages in the elevator are determined.

The Dominion Government Elevator.

The erection and operation of a large terminal of the Dominion Government strengthens the control exercised over all the elevators. It gives first-hand knowledge about the cost of construction and operation, and about every phase of the business of the public storage of grain. Farmers can now ship their grain either to an elevator operated by the Government or to one operated by their own company, the Grain Growers' Grain Company, or to one owned by the Canadian Pacific Railway Company, or to any of those operated by commercial companies.

Legislation Re Eastern Elevators.

Western grain on the way to mills in Eastern Canada or to the European markets passes through elevators situated in the eastern ports of the Great Lakes or the Atlantic seaboard. These elevators differ from the terminals in function and equipment. They are not primarily either storage elevators or elevators for the cleaning and treatment of grain. They are primarily transfer houses; parts of a transportation machinery, equipped to transfer grain already graded and cleaned from boat to bin and from bin to car or ocean steamers. And, as western grain is finally inspected at Fort William and Port Arthur and cannot be inspected again, there is neither an inspection nor a supervising staff maintained in these elevators such as are maintained in the terminals.

The Dominion Government owns three of these elevators, one at Port Colborne, one at Halifax and one at St. John, and it operates them through the Department of Railways and Canals. Of the others some are owned and operated by the Harbor Commissioners of Montreal and Quebec, some by the Canadian Pacific and Grand Trunk Railway Companies, some by warehousing companies that do not trade in grain and some by companies that deal in grain.

Apart from those operated by the Department of Railways and Canals, and the Harbour Commission-

ers, these elevators are required to take annual licenses from and file bonds with, the Board of Grain Commissioners. Their tariffs and charges are under the control of the Board, and they are required to conform with certain conditions of the Grain Act as to receiving, binning, treating, and shipping the grain. The principle of these provisions is that they must maintain the identity of the grade; whatever grade the grain carries as it is received, it must carry as it is delivered. The method of applying this principle is not that of inspection and supervision of the work of the elevators as at Fort William and Port Arthur, but that of tracing the identity of the grain should the buyer consider that the grain delivered is not up to the grade of the certificate.

The Board of Grain Commissioners.

The administration of the Grain Act is connected with the Department of Trade and Commerce. It is entrusted to the Board of Grain Commissioners which reports to the Minister of that Department. The Board consists of three members, appointed for 10 years with headquarters at Fort William. The work of the Board falls under three main heads—administrative, commercial and judicial.

Administrative Work.

It has charge of the inspection and weighing of grain. It carries on this work through two executive officers, the Chief Inspector, Mr. Serls, of Winnipeg, and the Chief Weighmaster, Mr. White, of Fort William. Inspection is done at Montreal, Toronto, Peterborough, Kingston, Port Arthur, Fort William, Winnipeg, Calgary, Duluth, and at several of the large western mills. New inspection offices will be opened at Moose Jaw, Saskatoon, Vancouver and the Hudson Bay in connection with the elevators being erected there, and weighing is done at most of the inspection points. It appoints the Standard Boards and Examining Boards.

It has charge of the license elevators of the Dominion. It issues the licenses, receives the bonds, fixes the tariffs, watches the insurance of the grain in the terminals, does the work of registration and cancellation of receipts, and maintains a staff of inspectors who regularly visit the country elevators.

It has a statistical department at Fort William in which it collects all statistics relevant to its work.

The administrative work is organized in depart-

ments; those of inspection, weighing, registration, statistics, each in charge of an executive officer who is held responsible for this staff. The number of men employed in all these departments varies with the season. During the months of September to December it goes over 300 during the rest of the year it is about 250.

Commercial Work.

It has already built one elevator at Port Arthur which it operates as a public terminal. The elevator was built and is operated on commercial lines, and in this work the Board competes with other terminal companies. The elevator is recognized as one of the best in Canada, and its cost of construction as one of the lowest. The Board has also constructed elevators at Saskatoon, Moose Jaw, Calgary and Vancouver, and it operates these also. It is the intention to erect an elevator at Hudson Bay. The total capacity of all the Board's elevators will be 15,750,000 bushels, and the total number of men employed in the operation will run from 130 upwards. For the construction work the Board has an engineering staff, the chief engineer being Mr. Howe.

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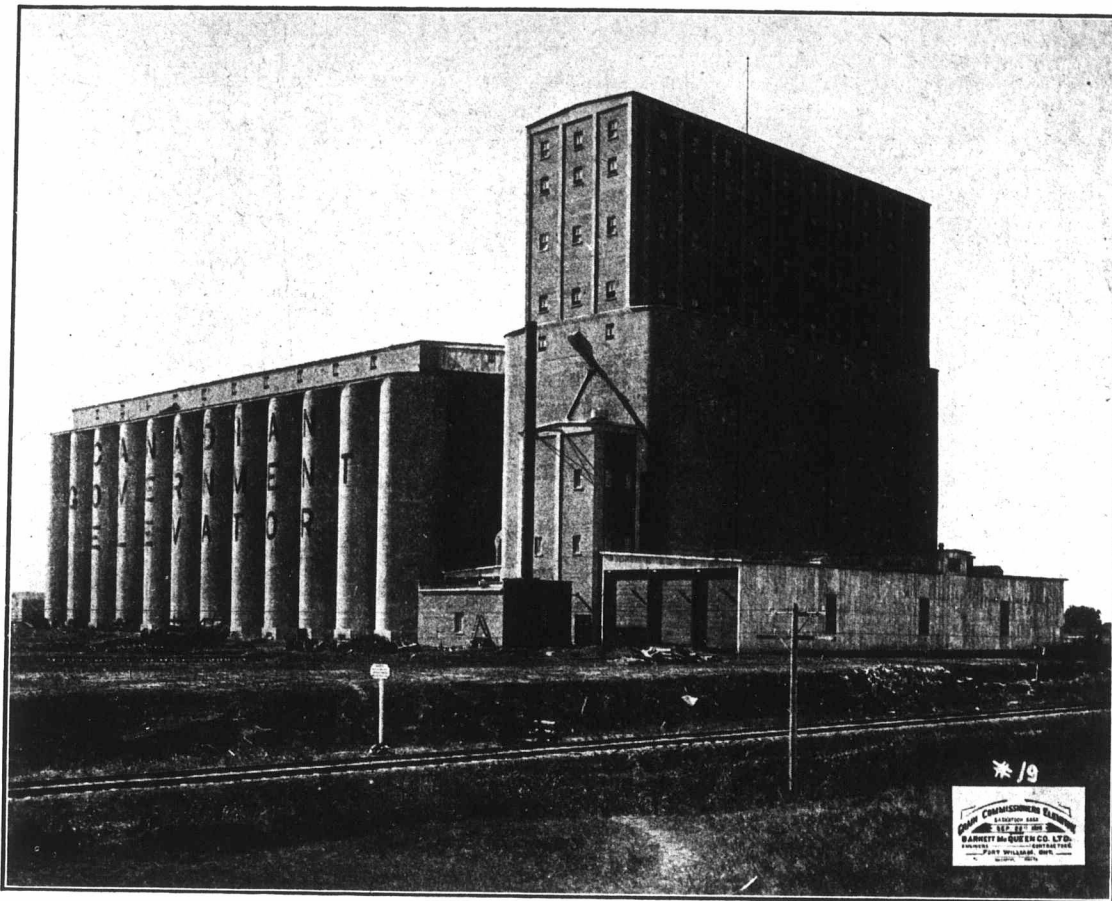
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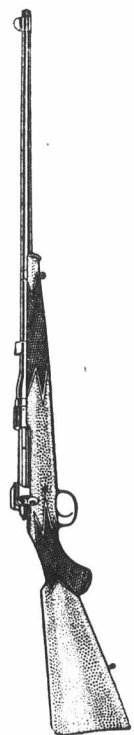
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The ROSS, 280 bore rifle I purchased from you is a very accurate rifle and has always given me entire satisfaction. I was so very pleased with this rifle in shooting a tigress lately, that I spontaneously send you this certificate with a photo of the tigress shot, allowing you to publish the same in your catalogue. With compliments.

Yours faithfully,
H. H. the Raja of Bastar.

The Ross .280 handles the king of the jungles just as successfully as it drops the great grizzlies of the American continent. From many lands hunters of big game write enthusiastic letters detailing their experiences with the Ross .280 and praising its marvellous power and accuracy.

The Ross .303 Models are slightly less powerful and also lower in price than the .280. Many of the most experienced Canadian sportsmen use them exclusively.

For small game or target practise the Ross .22 Cadet Rifle is ideal. It sells at \$12.00. Ross Sporting Rifles at \$25.00 and up. At best dealers everywhere. For catalogue write—

ROSS RIFLE CO., QUEBEC.

Northern Ontario

Northern Ontario is an immense forest robed land, stretching from the Province of Quebec on the east to Manitoba on the west, and extending north for 770 miles from old Ontario to Hudson Bay, an area of 330,000 square miles, or 208,000 square miles larger than the British Isles. Its climate is similar to that of Manitoba, and its soil is as rich. There are from 16 to 20 million acres of arable land, with only a handful of people, say 250,000, making up its population. Its forest wealth is very great, its mineral wealth alluring, and its volume of water power grand, for there are countless lakes, lakelets and rivers large and small. Game and fish abound, making it the sportsman's delight. Already there are thousands of miles of colonization roads and steam railroads, spreading like a spider's web over a huge part of that vast new land. Villages, towns and cities have arisen with wonderful modern equipment. Northern Ontario calls, not for the weak and careless, but for the hardy, resolute, self-sacrificing pioneer. Some day it will be the home of millions and in the teeth of frost and fire and all other natural obstacles, as in the Prairie, it will, like Ontario to the south, blossom as the rose. The following features: Crops, timber, and minerals, tell in brief detail what the new land is and what it has done.

Crops.

The different kinds of crops grown in Northern Ontario are cereals, legumes or hay crops, roots and fruits. If regard be paid to proper variety, and right time of seeding, many kinds of grains do well. Here the beginner should get information from older settlers or from

the high lands and make valuable lumber. Much of the spruce is of small dimensions, average from 4 to 10 inches in diameter. The pulpwood alone of Northern Ontario is a grand asset and a great opportunity for investment. Along the line of the National Transcontinental Railway there are about 300 million cords.

On areas set aside in the Province of Ontario as forest reserves alone there is approximately 9,000,000,000 feet of pine, having an estimated cash value of about \$90,000,000. These reserves cover 20,038 square miles, no fewer than 17,370 miles of which are in the southern parts of Northern Ontario.

The settler on complying with the regulations as to residence and improvements in townships which have been opened for location, is entitled to cut and dispose of all the wood other than pine, and the latter under certain conditions.

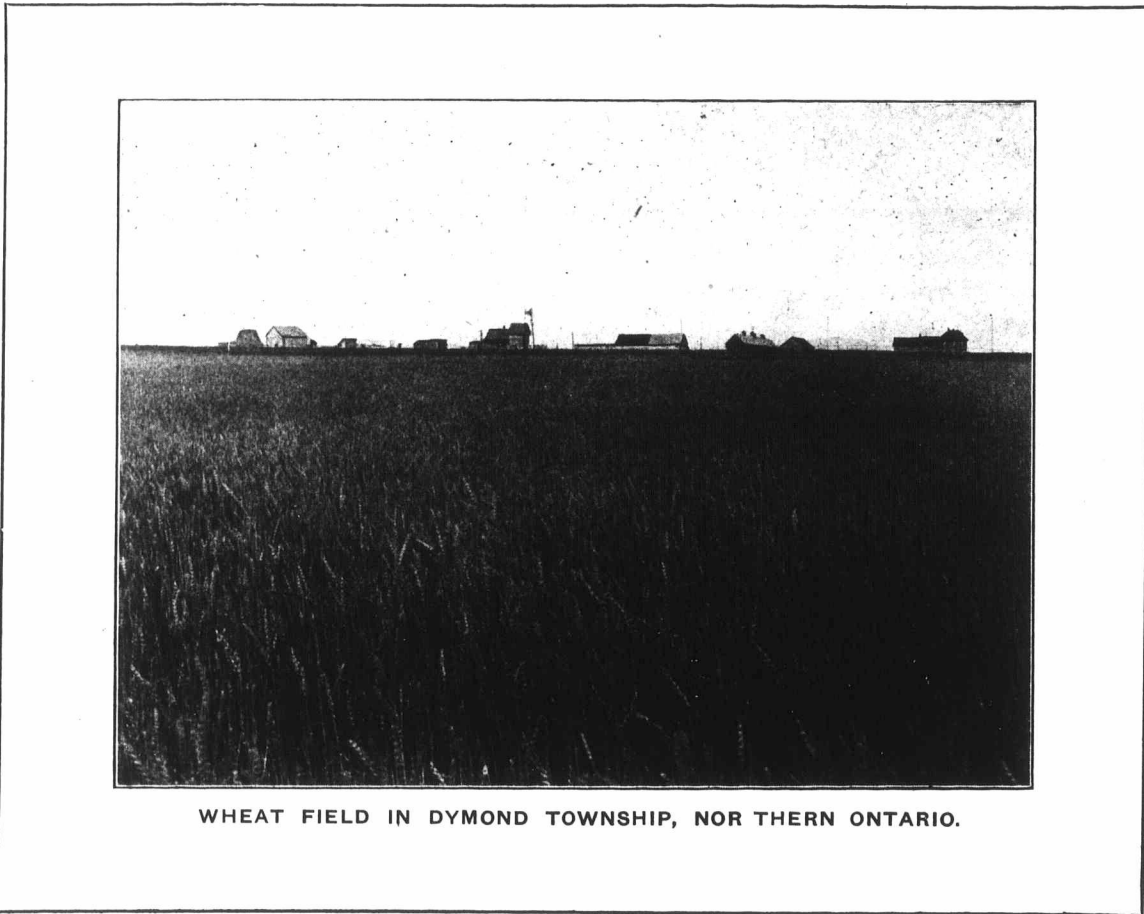
The work of the settler for the first few years is usually applied to cutting timber and clearing land. But whether he can profitably sell the pulp and logs depends on his capital and the proximity of the market. Even if he is not making more than expenses he should not, if possible, waste good timber. Thus, in case of necessity, he can fall back upon capital he has had foresight to conserve.

The new settler ignorant in the use of axe, saw and other tools, should, if possible, co-operate with experienced neighbors, rather than hire expensive help, in the work of cutting and hauling. Even if a small amount is marketed he has saved expense and is farther ahead in the end.

The following table gives the cost of timbering and slashing nine acres of virgin forest. The prices for material, especially firewood, are very conservative. The work was done in mid-winter and was therefore more costly, particularly also as the different kinds of material were handled separately. Further, much of the best marketable timber had been taken out before. Nevertheless, after paying the highest wages, there was a favorable balance of \$14.38 per acre over and above expenses.

Material.	Expenditure.					Totals.
	Cost of Cutting.	Cost of Skidding.	Cost of Hauling 1/2 Mile.	Cost of Making Roads.	Cost of Stumps.	
Logs . . . 22,642 cords	\$36.88	\$28.58	\$17.28	\$2.72		\$ 85.46
Pulp . . . 30	37.33	31.24	20.59	2.72		91.88
Wood . . . 50	28.77	11.82	10.83	2.72		54.14
Slashing undergrowth . . .						28.77
Sharpening axes and saws, harness repairs, etc.						5.35
Milling 22,642 feet of lumber at \$4.25 per M.						96.22
Total cost						\$361.82
Average cost per acre						\$ 40.20
REVENUE.						
22,642 feet of lumber at \$15.00 per M.						\$339.63
30 cords of pulpwood at \$3.25 per cord						97.50
50 cords of firewood, valued at cost						54.14
Total						\$491.27
Revenue per acre						54.58
Difference between revenue and cost per acre.						\$14.38

The above table deals with a partial clearing in 1906 and 1907; it does not include stumps. These were blasted in the spring of 1915, and the following table is an accurate account of the cost of labor and material in connection with 7 1/2 acres in sections of 2 1/2 acres each.



WHEAT FIELD IN DYMOND TOWNSHIP, NOR THERN ONTARIO.

the local representative of the Department of Agriculture. Late maturing grains may be sown for hay. Corn cannot be profitably grown but in certain parts. All kinds of clover have excellent growth, and large returns of very nutritious hay are got. Clover and timothy, with exceptional quality and vitality of seed, are profitably grown practically all over the agricultural areas. The right varieties of alfalfa give very good results in many parts. Avoid southern grown United States seed, and use seed of Grimm, Ontario Variegated or of the Russian varieties. Alfalfa will not be so much missed where red clover and alsike grows so luxuriantly. The roots and vegetables of Northern Ontario are not excelled in abundance of growth by any part of the Province. Potatoes show great yields and mangels and turnips do well. An early variety of potato should be planted, particularly in the newer areas; for spring and early fall frosts injure the crops of late maturity; whereas in the older parts, pretty well cleared of timber, summer frosts are gradually going away and the risk of hurt is less. Vegetables of almost any kind give excellent returns. Apples are suitable only along the north shore of the Great Lakes and around large inland lakes, but crab apples do well in a wider range. The beginner should make judicious inquiry as to the growing of fruit, strawberries, raspberries, gooseberries, currants, etc., practically all kinds of small bush fruits, are grown successfully. Many small fruits, such as black currants, blueberries, strawberries, raspberries, are growing wild and can be gathered and preserved for household use.

Coming to closer particular.—Spring Marquis Wheat, in rich clay loam, is grown 5 feet tall, heads averaging 4 inches long, 40 bushels per acre; in lighter soil, 4 1/2 feet tall, heads average 2 1/2 inches high, 35 bushels per acre. Oats, white, panical, about 5 1/2 ft. high, strong in straw, head large and well filled, first class quality, averaging 60 bushels per acre; Banner type, 4 to 5 feet high, straw good, much grain plump and well filled, averaging 60 to 80 bushels per acre. Barley, O. A. C. No. 21, about 5 feet tall, good straw, heads averaging 2 1/2 inches, well filled; O. A. C. 6 rowed, 52 bushels per acre; common 6 rowed, 4 1/2 inches high, heads 3 1/2 to 4 inches, grain plump and plentiful, 40 bushels and well over per

HON. G. HOWARD FERGUSON,
Minister of Lands, Forests and Mines.

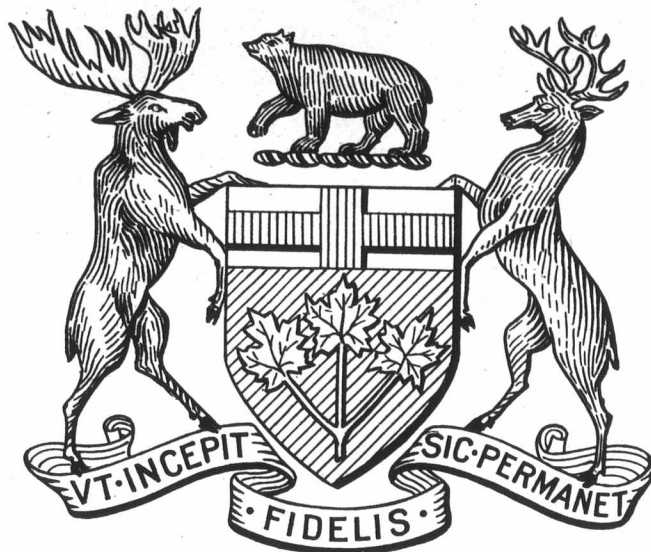
Lot.	Acres.	Man hrs.	Team hrs.	Powder	Total	
1	2 1/2	127	25.40	20	\$4.00	\$ 9.64
2	2 1/2	138	27.60	26	5.20	11.58
3	2 1/2	182	36.40	40	8.00	12.00
Cost of Branding, 114 hrs. at 20c.					22.80	
Total					\$162.62	

Average per acre \$21.68
There is a difference between lots 1 and 3 of \$17.36, which is explained by the fact that there had been no second growth on lot 1 while there had been on lot 3. It does not therefore pay to allow a second growth before the final clearing of stumps. Adding together the average cost per acre as shown by the two tables, namely, \$40.20 and \$21.67 respectively, the result is a total cost of \$61.87 per acre for complete clearing, as against a revenue of \$54.58 per acre, which makes the net cost \$7.30 per acre. Prior to second growth, and assuming capital and market proximity, the settler may count on realizing about enough from timber to clear the land and earning a wage of \$2 per day. In eight or ten years his land should be worth at least \$20 per acre.

Minerals.

The total value of the mineral output of Ontario is \$57,856,375 for 1915, as against \$46,295,959 for 1914. This is an increase of \$11,560,416 of which \$10,588,756 represents the increase in valuation put upon the nickel and copper contents of the Sudbury mattes. But even on the old low basis of valuation the increase is \$648,129. Gold exhibits a large advance in 1915, to be credited mainly to the mines of Porcupine, but offset to some extent by a decrease in silver production, its output, however, being 23,730,839 ounces. In gold production Ontario stands first among the Provinces. As high as 411,588 ounces of gold, worth \$8,501,391, were produced in 1915, as compared with 268,942 ounces, worth \$5,529,767 in 1914 an increase of over 53 per cent. The demand for nickel and copper for munition purposes has been abnormally great, and the mines have been worked to their utmost capacity. For free descriptive literature and full information about this great clay belt of Ontario,

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Treasurer of the Province - Hon. T. W. McGARRY, K.C.

The Province of Ontario has over one-third of the total population of Canada and supplies over 45% of the total annual production of the Dominion.

	In Ontario.	In all Canada.
Value of Farm Products	\$ 350,000,000	\$ 865,000,000
Value of Mineral Output, 1915	61,800,178	138,513,750
Value of Timber Output	50,000,000	200,000,000
Value of Manufacturers Products	\$ 700,000,000	1,300,000,000
Totals	\$1,152,000,000	\$2,493,500,000

ASSETS (31st. October, 1915).

Sinking Funds, Balance in hands of Banks, and Trust Funds held by Dominion Government, Temiskaming and Northern Ontario Railway, Hydro-Electric Systems, etc.	\$ 41,042,483.
Government Buildings and lands connected therewith	20,349,356.
Agricultural, Mineral, Timber properties and water powers District of Patricia, area of 146,000 miles, Timber, Fisheries, Furs and Mining possibilities	475,350,000.
Total	\$536,741,839.

LIABILITIES.

Total Funded Debt, including this issue	\$ 49,389,366.71
Indirect Liabilities, Guarantees (fully secured)	10,345,847.00
Total	\$59,735,213.71

Annual Revenue	\$ 12,975,732
Assessed Value of Taxable Property	
In Ontario	2,000,000,000
Area	407,252 square miles
Population	2,750,000
Careful financing together with unlimited resources has established a credit for the Province of Ontario second to none in the financial markets of America.	
Assessed Value	\$2,000,000,000
Annual production	1,000,000,000
Uncultivated farm land, acres	20,000,000
Available timber	19,000,000,000 ft.
Available pulpwood	300,000,000 cords
Undeveloped water powers	4,000,000 h.p.

The Hydro-Electric Commission was formed in 1906 by the Ontario Legislature to undertake the generation and distribution of electrical energy at cost to the Municipalities in Ontario. The Commission now supplies approximately 120 municipalities and operates approximately 2,000 miles of transmission line. The Province has advanced to the Commission \$12,490,712.08.

In the Temiskaming and Northern Ontario Railway the Province has an asset on which has been expended the sum of \$20,483,415.77. The Government Railway of Ontario is operated and directed by a Commission composed of three Commissioners. The main line from North Bay to Cochrane is 252.29 miles in length, with a total mileage of 455.19, including branch lines of 78.31 miles and 111.95 miles of yards and sidings. Subsidiary to the T. & N. O. Ry. is the electrically operated Nipissing Central Railway with a mileage of 12.64. The T. & N. O. is a modern railway of the latest standard of efficiency utilizing all steel trains and modern equipment, connecting Northern Ontario with the older portions of the Province. The T. & N. O. Ry. serves through regions which not only constitute an ideal tourist and sportsman's country, but which are also immensely rich in lumber, mineral and agricultural possibilities.





PAINT LOOKS ALIKE WHEN IT'S NEW
 You can't tell much about the quality of paint by looking at it when it is freshly applied. Colors are easy to produce, and the glisten of fresh oil gives even poor paint a temporary beauty.

BUT LOOK AT IT A FEW YEARS LATER!
 The cheap paint, that started out so bravely, has faded, cracked, and peeled. It is unsightly, and—more important still—has exposed the wood below to the destructive effect of sun, rain, wind and snow. The other,

B-H "ENGLISH" PAINT
 is still a good-looking, weather-tight coating, that will give years more of reliable service. There is no mystery about the reason. It lies in the fact that B-H "English" Paint is PERFECTLY PROPORTIONED to meet Canadian weather conditions. It contains 70% of Brandram's B.B. Genuine White Lead, and 30% of Pure White Zinc, ground to such marvellous fineness that it penetrates deep into the fibre of the wood. BEING THE BEST, IT'S CHEAPEST IN THE END.

BRANDRAM-HENDERSON LIMITED
 MONTREAL · HALIFAX · ST. JOHN · TORONTO · WINNIPEG

INDUSTRIAL PROGRESS OF THE WESTERN PROVINCES.

Big Increases in Capital, Pay Rolls and Production in Four Western Provinces.

As shown in the charts on this page the industrial progress of the western provinces has been very rapid. In Saskatchewan the capital invested in manufacturing industries increased from \$844,935 in 1900 to \$10,000,000 in 1915, while in Alberta the capital invested increased from \$844,935 in 1900 to approximately \$35,000,000 in 1915. In British Columbia the increase in capital invested in manufacturing industries was from \$22,901,892 in 1900 to \$130,000,000 in 1915. Big increases were also shown in Manitoba, as evidenced in charts elsewhere in these issues.

These increases have resulted in big increases in population and have created a large number of industrial centres, which are divided over the territory from Winnipeg, Manitoba, to Victoria, British Columbia. The western provinces now manufacture almost as large a variety of products as the eastern provinces, but with the exception of the output from the flour mills and the canning factories in British Columbia, most of the manufactured products are for home consumption. These provinces are, however, gradually increasing their export business in manufactured products.

Numerous water powers, natural gas, cheap coal and other advantages all tend to make the western provinces attractive locations for the future establishment of new manufacturing industries.

Capital in Saskatchewan Districts

The following figures show in tabulated form the five year increases in capital invested in Saskatchewan industries as indicated in the accompanying chart.

1900	\$844,935
1905	3,973,075
1910	7,019,951
1915	10,000,000
1920—OUGHT TO BE	15,000,000

Industrial Progress of Saskatchewan

The following chart shows the capital invested in manufacturing industries of Saskatchewan, the figures for 1900 being fifty per cent of the total for Alberta and Saskatchewan, as given in the 1900 census, when the figures were inclusive of the two Provinces.

1900	\$ 844,935
1905	3,973,075
1910	7,019,951
*1915	10,000,000
1920—OUGHT TO BE	15,000,000

*Estimate based on natural five year increase.

Capital in Alberta Industries

The following figures show the capital invested with increases every five years in the manufacturing industries of Alberta, as indicated in the accompanying chart.

1900	\$ 844,935
1905	5,545,821
1910	29,518,346
1915	35,000,000
1920	40,000,000

Industrial Progress in Alberta

The following chart shows the capital invested in manufacturing industries of Alberta. The 1900 figures are taken by a division of the figures for that year which were given for Alberta and Saskatchewan combined.

1900	\$ 844,935
1905	5,545,821
1910	20,518,346
*1915	35,000,000
1920—OUGHT TO BE	40,000,000

*Estimate based on natural five year increase.

Capital in British Columbia Industries

The following figures show in tabulated form the industrial progress of British Columbia as marked by the increases in capital invested in manufacturing plants.

1900	\$22,901,892
1905	53,022,033
1910	123,027,521
1915	130,000,000
1920—OUGHT TO BE	135,000,000

Industrial Progress of British Columbia

The following chart shows the industrial progress of British Columbia, as evidenced in the capital invested in industries and the increases in five year periods.

1900	\$22,901,892
1905	53,022,033
1910	123,027,521
*1915	130,000,000
1920—OUGHT TO BE	135,000,000

*Estimate.

How to Acquire Water - Powers in the Province of Quebec

To utilize a waterfall in the Province of Quebec, the necessary permission must be obtained from the Provincial Government by applying to the Honourable Minister of Lands and Forests.

A water-power of a lesser capacity than two hundred horse-power may, in certain circumstances, be purchased without reservation. But, as a rule, all water-powers of a capacity exceeding two hundred horse-power are granted only under an emphytentic lease, the conditions whereof are approximately as follows:

1.--Duration of the lease--from twenty-five to ninety-nine years according to the importance of the water-fall and the amount of capital required for its utilization;

2.--The lessee must pay a yearly rental for the lot conceded to him and such rental remains the same throughout the term of the lease;

3.--The lessee must pay, in addition, a yearly royalty, which varies according to the geographical situation of the lot, of from ten to thirty-five cents per horse-power utilized. Such royalty is payable only from the moment when power is produced;

4.--The royalty under article 3 is subject to revision every twenty-one years counting from the signing of the contract;

5.--The Department grants a delay of two years for commencing work and two further years for producing power, that is for the complete development;

6.--The lessee must also make a deposit in money or other securities as security for the carrying out of the contract. If the conditions should not be fulfilled, such deposit may be forfeited; but, in the contrary case, it may be reimbursed after a certain lapse of time;

7.--Lastly, the lessee must submit the plans of his works, mills, &c. to the Department previously to their installation and, subsequently, when the power house is in operation, he must keep the Department informed of the quantity of power he produces.

For further information apply to the Department of Lands and Forests, Quebec.

From Inter-Colonial to Inter-Imperial

The Growth in the Canadian Government Railways which now Extends from East to West

Up until this present time we have been accustomed to think of the Canadian Government Railways as being peculiarly a Maritime institution. The Intercolonial, when we first knew it, ended at Riviere du Loup, not far outside New Brunswick, in the Province of Quebec, where it connected with the Grand Trunk and in that way put us in touch with the railway system of the western provinces. The extension to Montreal which was made twenty years ago did not seem to us to rob the I. C. R. of its Maritime complexion; it was for us it existed, and the extension but put us a little more directly in contact with the great centres of the country. At the time it seemed to us that the extension meant completion. Some may have dreamed of a further extension, but certainly few ever thought that one day the Government Railway would be extended to tap the great grain country of the far west. The past few months, however, have been getting us accustomed to a new idea. The Intercolonial that we regarded so peculiarly our own, has become indeed a national institution, and lo! the misnomer is disappearing; we think and speak of the I. C. R. still, but what we really mean is the C. G. R., the Canadian Government Railways. As new equipment is added, or old refurbished, they now paint "Canadian Government Railways" on the rolling stock where formerly they used to paint "Intercolonial." The folders and time tables and other literature of the system bear the new name. Three separate systems have now been rolled into one: the Intercolonial, the Prince Edward Island Railway and the National Transcontinental are to-day comprehended under the one name,—Canadian Government Railways. And the western gateway for the time being is in Winnipeg.

Note the development! First the terminus was the town of Riviere du Loup. Then it was moved to Montreal. Now it is Winnipeg. One asks, Where next? On the Pacific Coast? To which we make reply, Why not? If there was a reason for extending the system to Winnipeg, why not to a Pacific port? Having made the I. C. R. so much a national institution, why not go a step farther and make it entirely national?

Time was when the people about the Great Lakes and farther west used to look upon the Government railway as a Maritime institution only. And they used to complain more or less about what we were getting out of the rest of the country. In fact, some of them haven't quite got over that grudging habit yet. But the new order of things will bring about a change. We have a suspicion that the recent move is but the beginning of a bigger scheme. We should not be surprised if the day were coming when the system will not only tap the grain country of the west, but will extend its ramifications all through Quebec and Ontario. And in so doing, it will do in its large area what it has been doing in the Maritime Provinces, namely, giving the population affected a good service at a reasonable cost. Once the benefits of government ownership are felt we may assume that the system will go on enlarging and becoming more truly national in its character. This is no new conviction on our part. It is the

hope which has been advocated in these columns for many years.

But is that the end? Have the possibilities been achieved when the Government train that takes you abroad at Halifax puts you off at a port on the Pacific coast? May we not see the day when our one time Inter-colonial may have become Inter-Imperial? When a traveller may buy a ticket in the old capital of the Empire, London, to take him by way of Canada, to Canberra, the new capital of Australia, or even to Delhi, the new capital of old India, all the while to travel on government-owned ships and trains? Some day, when the nations have laid down their arms and Imperial Britain is permitted once again to pursue the arts of peace, it is quite possible, and we would say practicable, for the little railway that began at Halifax a half century or more ago, to have grown into a great system for the development of the Empire and for its consolidation in a material sense.

As we think of the present extension and dream of these possibilities, we are reminded of a very significant fact. This extension is an extension of the government-owned principle in Canada. There are people who argue that public ownership is unsound, but whatever there may be in their contention, the fact remains that government ownership goes on increasing. It is an old story in Europe where all sorts of public franchises have been pretty well turned over to either municipal or national ownership. Since the beginning of the war, the principle has gained wider application in the Old Country than ever before.

It may be said that the extension of Government ownership in Canada is in obedience to a general tendency. Whatever the disadvantages of Government ownership may be, society seems to think they are outweighed by the advantages and seems to believe that experience will lead to the elimination of any disadvantages that may present themselves. The efficient management of the I. C. R. at the present time has no doubt proved an important factor in removing these old time prejudices. However, this article is not intended to discuss this question, and we make mention of it simply because of the significance of so wide an extension of the principle of public ownership in Canada.

Those of our readers who have not had the opportunity of knowing much about what the Railway Department is doing with this addition to its lines, will no doubt be interested to learn some of the particulars incident to the enterprise. For the organization of an extensive new railway is no mean undertaking. It is probable that so extensive a mileage of new and unequipped railway was never before taken over by any railway and when one thinks of the task involved in providing for the locomotives, passenger cars, baggage cars, telegraph operators, station agents, train crews, and all the human and other material necessary in the conduct of railway transportation, it will be understood that the management had no small problem to solve in getting things started. Nevertheless, when the button was pressed on June 1st, 1915, a little over three weeks after the first official announcement of the appointment of a General Superintendent for

the National Transcontinental section, a train service was immediately set in motion all over the eleven hundred miles of new line.

The reader who is familiar with the railway map of Canada, will have in his mind's eye the route covered by the new acquisition, but in any case a reference to the map published in this connection, will show at a glance what it amounts to. It includes the line which stretches from Quebec to Winnipeg and the spur which runs down from this section of main line to Fort William.

It is fitting that the name "National" should be given to the premier express of the railway that has now graded, so to speak, from a sectional to a national status. The "National" is a modern express in every respect, having all the latest conveniences. It provides a tri-weekly service between Toronto and Winnipeg, and made its first trip from Toronto on July 13th. The "National" has been tersely described as a new train, by a new route, through a new country. The route traversed is via Grand Trunk, to North Bay, the Temiskaming and Northern Ontario from North Bay to Cochrane, and thence by the N. T. R. line (now C. G. R.) from Cochrane to Winnipeg. Representatives of the press were invited to participate in the inaugural trip, and punning from the reports which appeared in the various papers, the excellence of the roadbed, equipment of the train, possibilities of the country, grandeur of the scenery, created excellent impressions. It is predicted that the business so developed will, in the near future, demand a daily service.

For the present there is no through passenger service between Quebec and Winnipeg via the Government Railways main line, but the time table is so arranged as to make a through connection at the various divisional points. When the necessary rolling stock has been received, a bi-weekly through passenger service from Quebec is likely to be inaugurated.

In addition to these services mention might be made of the daily fast freight service between Toronto and Winnipeg, via the route of the "National," which is an indication of the freight traffic developing by the new route between the East and West—the eighth and most northerly transcontinental line.

If one couple with this extension of the Government Railway system, the immense port works that are going on at Halifax and St. John, one cannot help wondering if both are not parts of a scheme which the Government have in mind, which in its fullness it has been wise to keep in the background for the time being. We remember a remark made by the Minister of Railways at a meeting over which he presided while in Halifax a short time after the port development scheme was first promulgated. It was the first time the Halifax public had a chance to get at him and the critics of the scheme were there to try conclusions with him. One man thought he had a convincing argument when he said that there wasn't the business to make use of such an extensive terminal. The Minister quietly replied: "Our scheme will be a great failure if what we have



Winnipeg—The New Western Terminus of the People's Railway.

Dominion Copper
Products Company
Limited

COPPER & BRASS

Drawn and Rolled

Office and Works:

LACHINE, P.Q.

in view does not fill those docks to over-flowing with business." We have no idea what the Government had in view then, but perhaps they were only getting ready to fit up this eastern terminal for the business that the projected western extensions would occasion in the future. The late Sir Wm. Van Horne once said that we had greatly enlarged the bin without enlarging the hopper, and perhaps Mr. Cochrane knew something about the kind of hopper it would be necessary to provide at this eastern end of a railway that he then had in mind.

We visited the site of the new Halifax terminals one day recently and in our mind's eye we could picture the scene as it will be ten years hence. We walked past the high clock tower at our left into the great train shed, and over one of the tracks we saw the following notice board: "This train for Montreal, Winnipeg, Prince Rupert and all points in the Orient." The "Hong Kong" train was standing there ready to pull out on the strike of the bell. Then our mind went back to the time a quarter of a century ago when the late Dr. Farrell coined a phrase that has become proverbial. Speaking to an audience that had assembled to protest against the mail ships making their terminus at Portland, he

put his hand to his ear and said, "Hark! Have you heard the whistle of the Hong Kong train? No, you have not heard the whistle of the Hong Kong train. Why? Because it is blowing in Portland, several hundred miles away." Now the Hong Kong train was blowing in Halifax, and the dream of Nova Scotia for many generations was realized at last. When our vision ended, we returned to our desk, but we have the faith to believe that while Winnipeg is for the time being the western terminus of the railway, that once ended abruptly we were going to say, at Riviere du Loup, the time is coming, perhaps it is not far distant, when the old "Intercolonial" will link up the uttermost ends of the earth.

Western Railway Mileage

Now Over 16,000 Miles of Railway in the Western Provinces.

No better indication of the progress and advancement of the west could be found than the figures showing the increases in railway mileage. These provinces in proportion to their population probably have the biggest railway mileage in the world. There are now over 16,000 miles of railway in the western provinces of Canada, much of this being new lines completed since the outbreak of the war. The new development in the recent two or three years have been chiefly in northern Alberta, Northern British Columbia and Northern Manitoba. The lines yet to be completed include considerable mileage to the Hudson Bay in Manitoba and lines projected in the Peace River Country.

The following table shows the increases in western railway mileage:

1910	9,463
1911	9,923
1912	11,026
1913	12,807
1914	13,688
1915	16,097

At the commencement of the war in 1914 there was a big programme of railway development under way in the four western provinces, much of which was curtailed after the war. However, the completion of the Canadian Northern to Vancouver and of the Grand Trunk to Prince Rupert are comparatively new events and have given the prairie provinces an elaborate system of railway connections with both the Atlantic and Pacific Coasts. The Pacific and Great Eastern has done considerable work on its lines from Vancouver to the Peace River country, while the Edmonton, Dunvegan and other lines from Edmonton have been constructed with every possible speed. The construction of these and other lines into the northern parts of Alberta and British Columbia will be hastened at the conclusion of the war, when money for such development will be available.

The western provinces from Winnipeg, Manitoba, to Prince Rupert and Vancouver, British Columbia, are now served with a network of railways which give ample transportation facilities to new settlers. Considerable progress has also been made with the railway development on Vancouver Island.

RECORD CANADIAN TRADE.

During the second year of the war Canada's total trade, exclusive of coin and bullion, reached the new high record of \$1,668,880,000 as compared with \$920,532,000 for the preceding twelve months. The balance of trade in Canada's favor grew to \$359,860,000 as compared with \$89,088,000 for the year ending with August, 1915. The aggregate favorable trade balance for the two years is \$448,948,000 and the export of manufactured articles for the two years aggregated \$453,867,000 or more than four times the total value of manufactured exports for the two years preceding the war.

TRADE REVIVAL IN B. C.

Recent reports state that there is indication of a trade revival in British Columbia, which is marked in the fisheries and in the lumber industries and particularly in the mining development of the province. Conditions in Vancouver and Victoria show continued improvement while the inland towns and cities are in a prosperous condition. The revival of business in British Columbia came sooner than was expected and has created a renewed confidence among the business interests of this Pacific coast province. The mining activities have been especially prominent, while the revival in the lumber business as includes increases in the pulp wood production.

Union Drawn Steel Company Has Interesting History

One of Hamilton's Biggest Industries, which Ten Years Ago Started in a Small Way. Another of the Canadian Steel Industries Which Has Shown Continuous Progress

No more interesting chapter in the history of Canadian industry is shown than the chapter which deals with the growth and expansion of the steel industries. The Union Drawn Steel Company, Limited, of Hamilton, was founded in May, 1905, starting with 30 employees which have since been more than trebled in number, with approximately 100 on the pay roll at the present time.

A remarkable feature of the Union Drawn Steel Company's history has been the big increase in output, an increase which has been gradual but large in the total. The output has increased from 250 tons to 1,500 tons per month. In ten years the company has thus increased its output by about six hundred per cent.

The products of the company which are sold all over the Dominion of Canada, and exported also to New Zealand and Australia and to the United States, include Bright Finished Steel Shafting and Shapes such as Flats, Squares and Hexagons; Special Screw Steel for use in automatic screw machines for the manufacture of nuts, bolts, etc.; Bright Finished Special Carbon Steel used by automobile manufacturers and Bright Finished Duplicate Shafts used in the manufacture of agricultural implements.

At the present time, the company are using over 50 per cent of their capacity in the manufacture of steel that is used in the making of parts for munitions, such as nose bushings for 6 in. and 4.5 shells, manufacture of adapters, gages and graze fuses. The plant of the Company which is located on Victoria Avenue, Hamilton, covers an area of over an acre and the company has purchased a new site on Burlington Street, where they contemplate building in the very near future a new and enlarged up-to-date factory on a four acre plot, which will give a capacity sufficient to take care of the increased business for years to come.

The officers of the company include F. N. Beegle, President; Frederick Davidson, Vice-President; L. R. Davidson, Secretary; J. A. McMahon, Treasurer and Manager. Interviewed by the Journal of Commerce, the company expressed confidence in the future, a sentiment which has been evident among all of Canada's leading steel companies. The preparation for a new and bigger plant indicates better than words the confidence in the future steel business of Canada held by the directors and the men behind the Union Drawn Steel Company of Hamilton.

SHAFTING

Rounds

1/8-in. to 6-in. Dia.

Squares

1/4-in. to 2 1/4-in.

Hexagons and Flats

1/4-in. to 2 1/4-in.

up to 1 1/2-in x 3-in.

Free Cutting Screw Stock

Cold Drawn, Turned and Polished Steel

THE
Canadian Drawn Steel Co.
LIMITED

HAMILTON,

ONT.

The Canadian Drawn Steel Company, Limited, was founded in Hamilton in March, 1905.

Since its inception it has grown steadily, and will this year have an output twelve times that of the first year.

The Company is purely Canadian, the officers being as follows:—

H. J. WADDIE, President.

R. K. HOPE, Vice-President.

S. D. BIGGAR, Treasurer.

C. R. BROWN, Secretary.

The Company's output for 1917 is largely sold out, and the prospects for the coming year are very bright.

THE WESTERN PROVINCES



By Guy Cathcart Pelton

THE FOUR WESTERN PROVINCES, MANITOBA, SASKATCHEWAN, ALBERTA AND BRITISH COLUMBIA, COMPRISE A LAND AREA OF 1,081,649 SQUARE MILES. THESE PROVINCES STILL HAVE MILLIONS OF ACRES OF ARABLE LAND READY FOR THE SETTLER AND THE AGRICULTURIST. THE POPULATION OF THE FOUR PROVINCES AT THE LAST CENSUS WAS 1,714,189.

THE RAILWAY MILEAGE OF THE FOUR PROVINCES NOW EXCEEDS 16,000 MILES AND IS BEING ANNUALLY INCREASED. THE RAILWAY DEVELOPMENT INCLUDES THE OPENING UP OF LARGE NEW AREAS IN THE NORTHERN PORTIONS OF THE FOUR PROVINCES. THE OPERATED MILEAGE WILL SHOW BIG INCREASES AT THE CLOSE OF THE PRESENT YEAR AND HAS BEEN EXPANDING IN SPITE OF THE GENERAL CESSATION OF NEW BUILDING CAUSED BY THE WAR.

THE FISHERIES OF THE WESTERN PROVINCES HAVE AN OUTPUT WORTH OVER \$14,000,000 ANNUALLY, OF WHICH AROUND \$13,000,000 IS FROM THE PACIFIC COAST FISHERIES AND OVER \$1,000,000 FROM THE INLAND LAKE FISHERIES OF THE PRAIRIE PROVINCES. THERE ARE 41,000,000 ACRES OF COMMERCIAL TIMBER IN THE FOUR PROVINCES.

THE INCREASES IN AGRICULTURAL OUTPUT HAVE NOT BEEN CONFINED TO THE GROWING OF GRAIN, THOUGH THE WESTERN GRAIN CROP NOW ADDS APPROXIMATELY \$300,000,000 ANNUALLY TO THE SPENDING POWER OF THESE PROVINCES. BIG INCREASES HAVE BEEN MANIFESTED IN THE LIVE STOCK AND DAIRYING INDUSTRIES, RESULTING IN THE ESTABLISHMENT OF LARGE PACKING PLANTS, CREAMERIES AND OTHER INDUSTRIES.

THE INDUSTRIAL PROGRESS OF THE WEST HAS BEEN ALMOST PHENOMENAL. IN TEN YEARS THERE HAVE BEEN BIG INCREASES IN THE CAPITAL INVESTED IN MANUFACTURING INDUSTRIES, IN PAY ROLLS AND IN THE MANUFACTURING OUTPUT. APPROXIMATELY \$250,000,000 IS NOW INVESTED IN THE MANUFACTURING INDUSTRIES OF THE WESTERN PROVINCES. THE MANUFACTURING INDUSTRIES ARE NOW SCATTERED THROUGH THE FOUR PROVINCES IN A LARGE NUMBER OF TOWNS AND CITIES WHICH HAVE BECOME IMPORTANT INDUSTRIAL CENTRES.

1916 FINDS THE FOUR WESTERN PROVINCES IN A PROSPEROUS CONDITION. THE PRAIRIES ARE FEELING THE BENEFIT OF THE BIG WHEAT CROP OF LAST YEAR AND THE PROSPECTS FOR THE BIG MONEY WHICH WILL COME FROM THIS YEAR'S HIGH PRICES. BRITISH COLUMBIA HAS HAD A REVIVAL OF BUSINESS IN THE MINING, FISHING AND LUMBERING DEPARTMENTS AND THE GENERAL IMPROVEMENT IN THE FOUR PROVINCES IS SHOWN IN INCREASED BANK CLEARINGS AND IN GENERAL PRODUCTION, BOTH FROM THE NATURAL RESOURCES AND FROM THE MANUFACTURING INDUSTRIES. THIS PRODUCTION BACKED BY THE INCREASES IN TRANSPORTATION FACILITIES, INCLUDING INCREASED RAILWAY MILEAGE, ELEVATOR CAPACITY AND PORT IMPROVEMENTS, PLACES THE FOUR PROVINCES IN A POSITION WHICH PROMISES TO MAKE 1916 ONE OF THE BEST YEARS IN THE HISTORY OF THE WEST.

The Story of the Nova Scotia Steel and Coal Company Limited

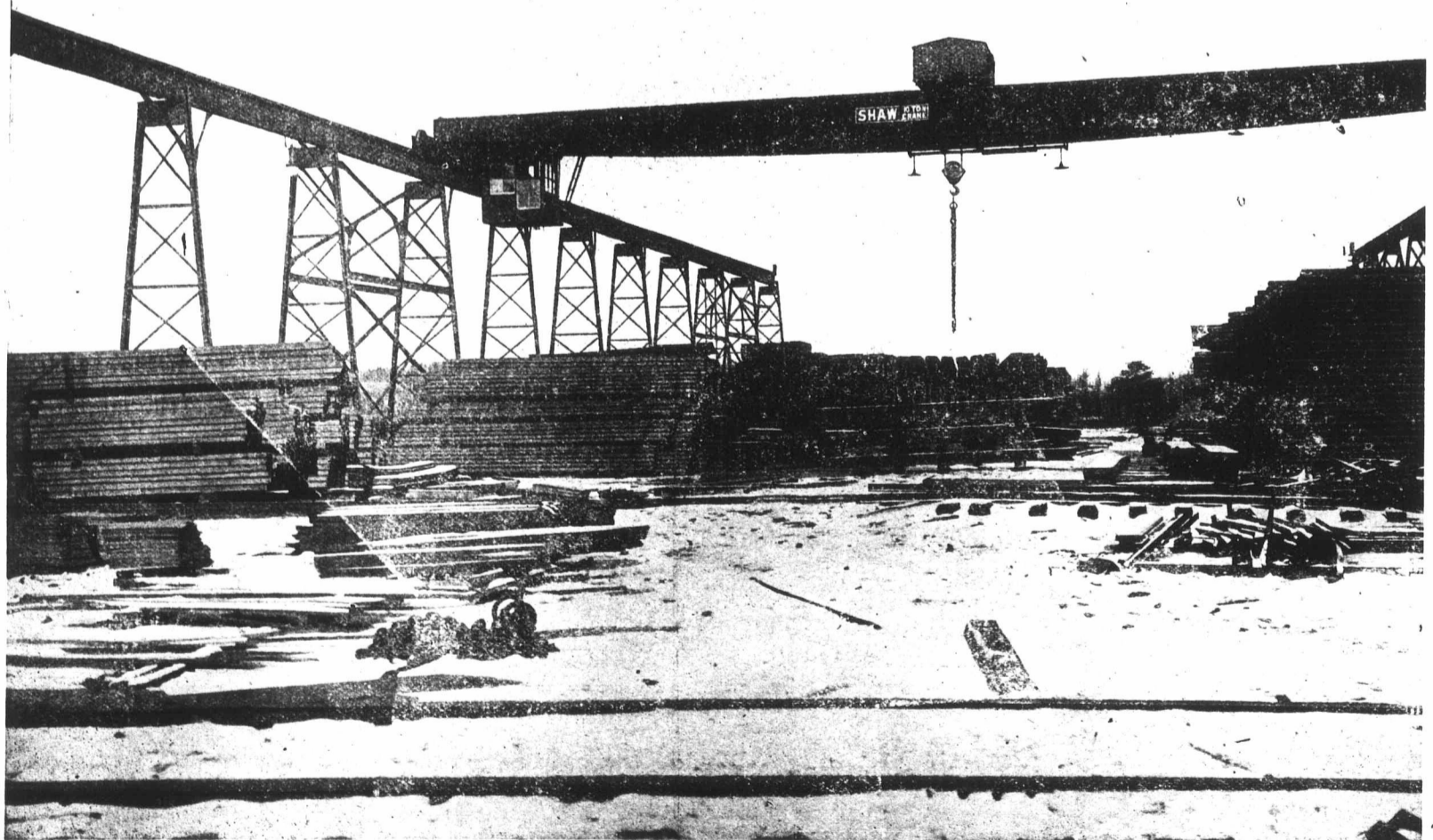
PART III.

The Unlimited Sources of Raw Material which can supply the demands of the Company for Centuries to come. Iron Ore from the Wabana Iron Mines at Bell Island; Coal from the Sydney Areas; Limestone from the Point Edward Quarries.

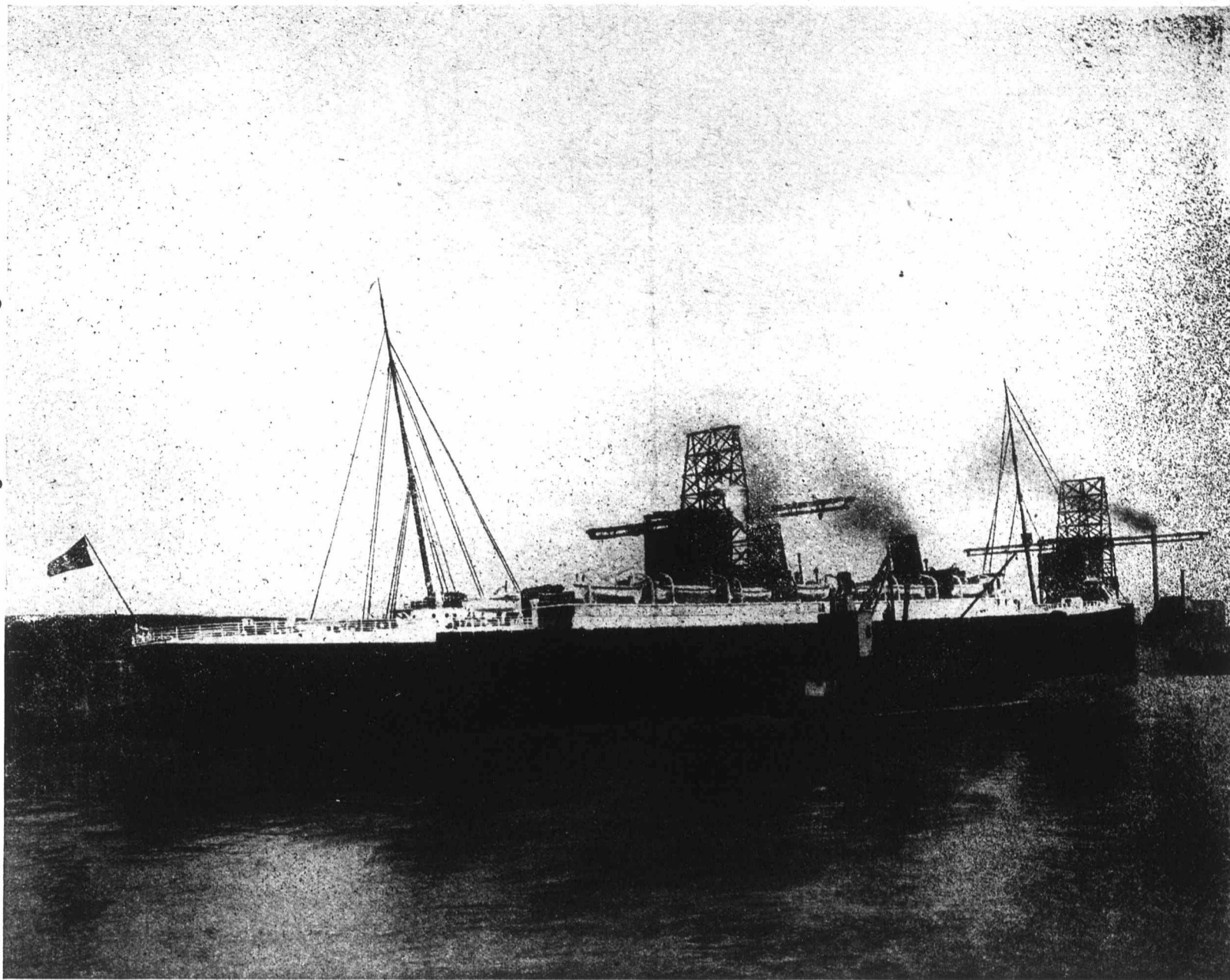
The Wabana Iron Mines supply a large amount of the raw material required for the annual production of the Nova Scotia Iron and Steel Company. With an unequalled geographical position, commanding the markets of both the European and American continents, and a deposit of hundreds of millions of tons of high grade ore, practically at tide water, the Wabana iron mines, on the eastern coast of Newfoundland, are probably the best known of all "Scotia's" varied operations. One of the chief achievements in the company's long record of pro-

gress has been the development of these deposits and they have proved one of its most profitable investments.

Bell Island, twelve miles in area, in Conception Bay, is the site of these operations. Out-cropping on the island are six seams of red hematite ore, three of which only are economically important at present. All out-crop on the northern side of the island and extensive prospecting has shown that the land ore is but the outer segment of a great elliptical basin lying far under the sea. These under-sea deposits have been opened up by slopes driven



STEEL YARD, WITH ELECTRIC CRANY



MONTREAL DISC HARGING PLANT.

from the land workings and the company finds itself possessed of ore deposits which at the most conservative calculations of eminent mineral authorities are sufficient to supply three times its present requirements for centuries, although but a very small portion of the areas have been opened.

The operation of these areas in the past ten years makes interesting history and forms a very important story in the progress of the Nova Scotia Steel and Coal Company's progress.

Containing it is estimated, over 2,500,000,000 tons, the Cape Breton coal areas of the "Scotia" Company rank high in their list of assets, and are among the most important holdings in Canada. A comparatively small portion of these areas has been worked in the 90 or more years that mining has been carried on here, operations having been confined almost entirely to the southern part of the Sydney Mines land and submarine areas. The thickness of the coal operated in by the various mines runs from 5 feet to 6 1-2 feet, the dip being uniformly about 8 per cent. The various collieries and mines are equipped to produce from 500 to 1,000 tons each per day.

Limestone being an important accessory in the blast furnace operation, the company procured an adequate supply at Point Edward, some nine miles distant from Sydney Mines, and connected with the main line of the Intercolonial Railway by a branch line 2 1-2 miles long. A property about 250 acres in extent is located here containing carboniferous stone in layers, high grade and uniform in quality.

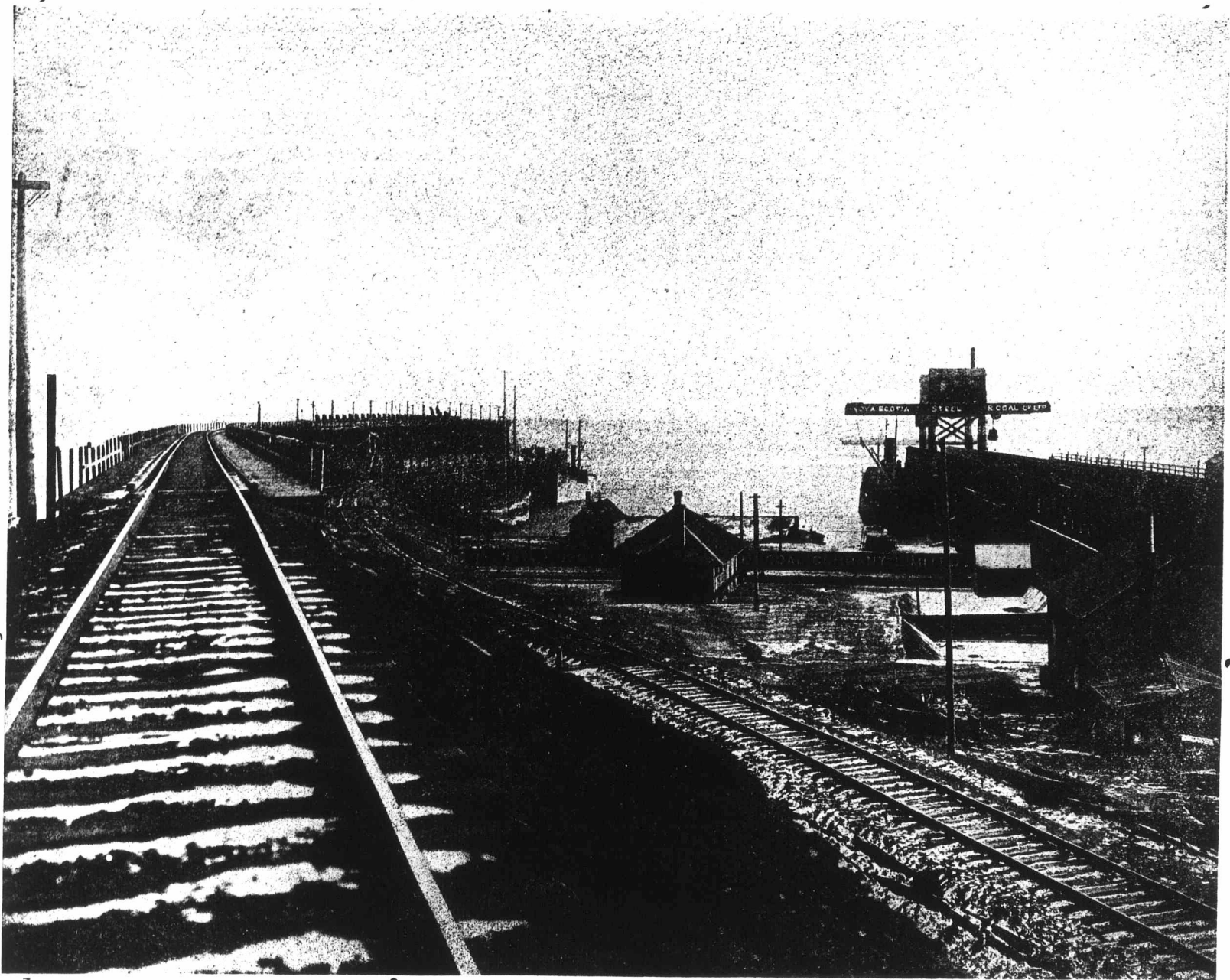
Thus in the Wabana iron mines, in the Point Edward limestone quarries and in the Cape Breton coal areas, the Nova Scotia Steel and Coal Company gets all of its raw materials required in its operations. The areas controlled by the company are sufficient

to supply raw material for centuries and will allow of annual increases sufficiently large to fill the demands of the company for home and export markets for an unlimited period.

Of the ore mined at Mabana up to 1913, the shipments included 2,000,000 tons to the United States and nearly 3,000,000 tons to Europe. The following chart, taking a half a dozen years at random, indicates the increases in the output from the Mabana mines, which in 1913 passed a total of over 12,573,000 tons for the total shipments to that date, the shipments for that year being 1,511,502 tons. It is interesting to note in connection with these shipments, the proximity of Wabana as a midway point between Europe and America, which shows a distance of 2,294 miles from Rotterdam; 1,966 miles from Liverpool; 1,075 miles from Montreal; 1,398 miles from Baltimore; 2,921 miles from Panama, and 1,160 miles from Bermuda.

Bell Island, the site of the Wabana deposit, is some six miles long by two miles wide, and is elliptical in shape. The shores of the island are precipitous and render it difficult of access, except at two points where beaches have developed on the south side. In 1895 the population of the island scarcely exceeded 500; to-day it is close to 5,000. According to a report published by the "Scotia" company in 1914 the moneys paid out in wages alone on the island at that time exceeded \$100,000 per month, and practically the same amount was paid in royalties.

The early history of the company's coal mines at Sydney is an interesting feature of Nova Scotia's industrial development. The General Mining Association, of London, was organized in 1825 to operate the coal deposits of Nova Scotia, of which a lease had been secured from the Duke of York, to whom they had been granted by his brother, George IV. The first pit was sunk at Sydney



NOVA SCOTIA SHIPPING PIER, FROM ELEVATED TRACKS.

ORE MINED AT WABANA TOTAL SHIPMENTS

The following chart shows the total shipments of ore mined at Wabana; these shipments being sent to United States, Europe and throughout Canada.

1895	2,400 tons.
1898	101,127 tons.
1900	312,585 tons.
1904	586,530 tons.
1908	864,000 tons.
1912	1,114,577 tons.
1913	1,511,502 tons.



11 Ton Rudder for "S.S. Gryfervale." An important feature of "Scotia" operations is the replacing of steamship rudders of lame ducks damaged in the North Atlantic and forced into Halifax for repairs which is done under the supervision of a Lloyd's representative. Recently the Company commenced the construction of a steel steamer which it is believed may be the commencement of the steel building industry which may make Nova Scotia famous in the future as wooden shipbuilding made it famous in the past.

Mines about 1830. Operations were also carried on at Sydney Mines, Cape Breton, the Albion Mines, in Pictou County, and in other parts of the Province. Agitation later developed against the monopoly enjoyed by this company, and for many years the "Duke of York's Lease" was one of the chief political questions of the Province, being finally settled by the Government of Nova Scotia arranging with the General Mining Association whereby its operations were confined to certain portions of Cape Breton, Pictou and Cumberland Counties. For many years the company was the most important in the Province, and contributed in a very marked degree to the very successful development of the Nova Scotia coal mining industry.

Since "Scotia" took over these properties a tremendous amount of development has taken place at Sydney Mines. Where in 1900 one colliery was in operation, with an annual output of 240,000 tons, to-day five well-equipped mines are producing about 900,000 tons, and the modern steel plants with the blast furnaces have open hearth steel capacity of over 150,000 tons per year, equipped with all the necessary coke ovens, coal washers and engineering shops. The railway system has been practically rebuilt, while at the shipping port of North Sydney, three miles only from the collieries and steel works, extensive docks, with the most modern facilities for coal shipping and ore receiving, have been constructed. This development has given new life to the sister towns of Sydney Mines and North Sydney, and they have developed into one of the most important industrial centres of the Maritime Provinces.

Four different blocks of coal areas are held by the company, these being the Sydney Mines land, Sydney Mines submarine, Boulardarie land and the outer submarine areas. The first three run continuously from the north side of Sydney harbor to the south side of the Great Bras d'Or, some 10 miles, while the outer submarine areas extend from Cape Dauphin to Cape Percy, covering the

entire Cape Breton coalfield, and within their area of 71 square miles are supposed to contain every seam which exists in this district, by far the most important and extensive in Canada.

The Cape Breton areas, as previously stated, are supposed to contain over 2,500,000,000 tons, yet a comparatively small portion of these areas have been worked in the 90 years that mining has been carried on, operations having been confined almost entirely to the southern part of the Sydney Mines land and submarine areas. Collieries have been opened in the central portions of that district only within the last few years.

This in brief is the story of the areas which provide the raw material for the Nova Scotia Steel and Coal Company. The Company has raw material in almost unlimited quantity and in this respect is more fortunately located than almost any other steel and coal company, combined, in the world. Great as have been the increases in the outputs of the company, they have not even commenced to tax even the outer fringe of the unlimited sources of raw material which awaits the exploitation of the company. The lack or scarcity of raw material will never be one of the troubles of the Nova Scotia Steel and Coal Company. The early founders of the industry laid the foundations both broad and deep, and the foundation laid by them has been followed up by the careful management and supervision of those who have for years been in charge of "Scotia's" operations.

(Note.—The concluding part of the interesting story of the history of the Nova Scotia Steel and Coal Company, Limited, will appear in the Fourth Trade Revival and Expansion Edition of The Journal of Commerce. The concluding article will show some interesting figures on the growth and development of the company and a number of self-explanatory charts will be included in the illustrations).

BANK CLEARINGS OF WINNIPEG

CITY TOTALS EXCEED MINNEAPOLIS, LOS ANGELES, BUFFALO AND
OTHER BIG CITIES

The Figures Below Show Winnipeg With America's Leading Cities, Both Industrially and Commercially, Giving the Population and Clearings. Winnipeg Clearings are not only the Result of Great and Growing Manufacturing Development, But also to the Ever Increasing Agricultural Development, Which in the Three Great Prairie Provinces Has as Yet Only Been Touched.

The Winnipeg bank clearings for the twelve months of 1915 were not only among the biggest on record, but exceeded the clearings for the same period of a large number of United States cities of larger population. Winnipeg's population was 265,000 and the 1915 bank clearings \$1,530,683,124, while Minneapolis, with a population of 360,000, had clear-

ings nearly \$200,000 less than Winnipeg.

Los Angeles, with a population of 550,000, had clearings nearly \$500,000 less than Winnipeg, while Buffalo with a population of 640,000 had clearings fifty per cent smaller than Winnipeg's. Other big centres, such as Seattle, Louisville, and New Orleans, all had much smaller bank clearings than Win-

nipeg, although the populations of these centres are much larger than Winnipeg.

The bank clearings of 1916 have shown new high records. There were some weeks during 1915 when the Winnipeg bank clearings exceeded those of Toronto. The per capita bank clearings of Winnipeg are among the largest on the continent.

The following figures show in tabulated form the bank clearings for the twelve months of 1915 for Winnipeg as compared with other cities of equal or larger population.

City.	Population.	Clearings, 1915.
Winnipeg	265,000	\$1,530,683,124
Minneapolis	360,000	\$1,341,545,000
Cincinnati	400,300	\$1,373,855,600
Los Angeles	550,000	\$1,048,128,061
Omaha	215,000	\$ 982,670,880
New Orleans	375,000	\$ 972,165,576
Milwaukee	430,000	\$ 836,384,564
Louisville	267,342	\$ 742,390,281
Seattle	335,000	\$ 612,928,000
Buffalo	640,000	\$ 611,114,647

WINNIPEG BANK CLEARINGS.

The following table shows the bank clearings of Winnipeg for the twelve months of 1915 as compared with other cities of equal or larger population.

Winnipeg.—Pop. 265,000 \$1,530,683,124

Minneapolis.—Pop. 360,000 \$1,341,545,000

Cincinnati.—Pop. 400,300 \$1,373,855,600

Los Angeles.—Pop. 550,000 \$1,048,128,061

Omaha.—Pop. 215,000 \$ 982,670,880

New Orleans.—Pop. 375,000 \$ 972,165,576

Milwaukee.—Pop. 430,000 \$ 836,384,564

Louisville.—Pop. 267,342 \$ 742,390,281

Seattle.—Pop. 335,000 \$ 612,928,000

Buffalo.—Pop. 640,000 \$ 611,114,647

Six Years of Continuous Progress Has Marked History of Steel Company of Canada

PART III.

Company Has One of the Most Complete Plants on the Continent. Interesting Method by Which Steel is Treated. Company Has Installed Every Modern Device in Bringing its Plants up to the Highest Possible Standard.

(Note.—Parts 1 and 2 of this review appeared in the first two Trade Revival Editions of The Journal of Commerce).

THE MECHANICAL TREATMENT OF STEEL.

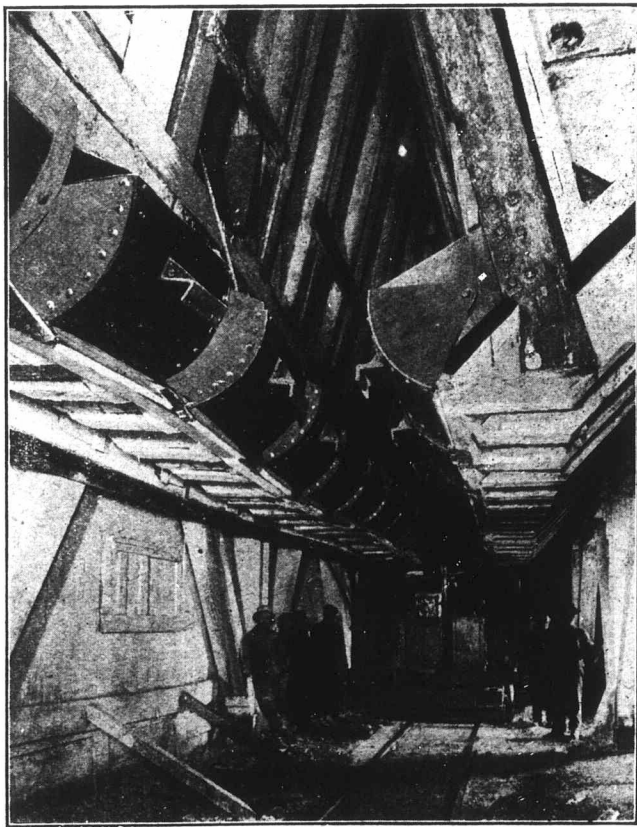
Steel, which is cast, i. e., poured into the moulds after being drawn from the furnace, is subject to certain defects, the prevention and removal of which can be accomplished by suitable means. Ingotism, piping and segregation are three of the defects liable to occur in steel. The former consists of the formation of excessively large crystals which form when molten steel is cooled too slowly, and also when it is not poured at the correct temperature. This crystalline structure when allowed to take place may persist throughout the entire ingot, whereas piping and segregation are more of a localized nature.

Piping, the term applied to the central porous core at the upper end of the ingot, is due to the shrinkage of the outer layers which induces an outward flow of the still liquid metal in the centre. This reduction in internal pressure also facilitates the evolution of contained gases which fill up the spaces left by the solidifying metal, resulting finally in the peculiar structure known as a "pipe." Segregation is a partial separation of the various ingredients from the iron during solidification, due to the difference in fusibility of the various impurities and the iron itself. As the presence of some of the impurities lowers the melting point of the iron without increasing their own solubility, the result is that when the lower layers of steel solidify, a small portion of the impurities is rejected and passed upward into the still molten metal. This action proceeds upward through the ingot until when the top-most metal reaches the point of solidification, the percentage of impurities present is considerably greater than in the bulk of the ingot.

After being in the soaking pit long enough to attain the necessary condition as regards solidification and temperature, the ingot is withdrawn from the pit by the crane and deposited on the approach table of the blooming mill. The ingot which is 15 inches by 17 inches by 7 feet long, is passed back and forth between massive steel rolls, which while reducing its cross-sectional area, increases its length until, when reduced to about 6 inches square, the bloom, as it is now termed, is 50 feet in length.

COMPANY HAS MODERN PLANT.

The mill at the Steel Company of Canada's plant, is very complete in design and construction and along with its power plant is one of the best examples of modern steel working machinery on the continent. The installation consists of a two-high 34-inch reversing motor-driven blooming mill designed by the Morgan Construction Company and built at the Lloyd-Booth plant of the United Engineering and Foundry Co., Pittsburgh, and is served by a Shaw 20-ton crane. The approach table in the immediate foreground is operated by a 30 horse-power direct-current motor, while the tables on either side of the mill are driven by 100 horse-power motors. The



Electrically Driven Charging Car Which Weighs the Ore, Coke, Etc., as Delivered by Overhead Chutes From Charging Bins.

side guards for handling the bloom from one part of the rolls to another, are operated by hydraulic gear to the right of the tables. Here are also located the pinion housings. The lower pinion is directly coupled to the motor shaft, which passes through the wall into the power house; the other end of the pinion shaft is coupled to the lower roll of the mill.

The spindle or shaft which connects the upper pinion with the upper roll is provided at either end with a flexible coupling or wobbler, so that the spindle may assume an inclined position as the upper roller is raised or lowered to suit the thickness of metal passing between the rolls. The travelling crane is provided with special tackle to facilitate changing rolls and replacing pinions, etc., in case of accident. The entire operation of the mill is controlled from a platform or pulpit located above the table, affording a clear view of the rolls and the work.

After being reduced to the desired size, which is accomplished in 15 to 18 passes, the blooms are cut to suitable lengths in a 10 by 10 inch vertical bloom shear, and then go to the finishing mill, which reduces them still further to a round section of suitable diameter according to the size of shell to be made. The blooming mill is driven by a 3,000 horse-power normal rating twin armature reversing motor, operated by electric power. The current which is received at 44,000 volts, 66 2-3 cycles, is stepped down to 2,200 volts three-phase for the large motors, and to 220 volts, two-phase, for several smaller motors and for lighting and all other purposes throughout the plant.

The speed and direction of the 3,000 horse-power motor are controlled by changing the polarity of the generators and varying their field strength, thereby varying the voltage applied to the armature of the mill motor. This eliminates rheostatic losses except in the field circuit and permits any desired speed to be obtained independent of the load. As a result of this arrangement, no peak loads are taken off the line and the current input to the motor-generator set is maintained practically constant. The blooming mill motor complete weighs 429,000 pounds, and the rotating part, which operates at a maximum speed of 100 revolutions per minute, weighs 164,000 pounds. This motor is provided with a thrust bearing on its shaft and a braking coupling is installed between the bearing and the pinion housing. The flywheel set weighs 367,130 pounds, and the rotating part weighs 240,000 pounds.

Ventilation is provided by a Sirocco fan installed by the American Blower Company of Detroit, which has a capacity of 24,000 cubic feet of air per minute.

(The concluding chapter in this interesting review will appear on this page in the Fourth Trade Revival and Expansion Edition of The Journal of Commerce. The concluding part will describe in brief the forging, finishing and loading of shells).



Exterior View of Blast Furnace Showing Pipes for Conveying Waste Gases to Stoves. Dust Separator in Foreground.

Bank Clearings (which reflects general business conditions) of Western Canada Cities in Comparison with wide-awake American Industrial Centres.

CALGARY BANK CLEARINGS.

The following table shows in tabulated form the bank clearings for five months of 1916 for Calgary in comparison with clearings for the same period for cities of equal or larger population as indicated in the accompanying chart.

City.	Population.	Bank Clearings.
Calgary	90,000	\$80,558,497
Jacksonville	92,500	\$77,625,188
Worcester, Mass.	170,000	\$76,742,250
Dayton, Ohio.	130,000	\$64,421,237
Birmingham, Alta.	195,000	\$61,099,234
San Diego, Cal.	100,000	\$49,053,010
Tacoma, Wash.	108,094	\$43,988,540
Fall River	130,000	\$34,388,724

CALGARY BANK CLEARINGS.

The following chart shows the bank clearings for Calgary for five months of 1916 in comparison with the five months clearings of cities of equal or larger population. Calgary's clearings for the period under review show a big increase over 1915.

Calgary—Pop. 90,000	\$80,558,497
Jacksonville, Fla.—Pop. 92,500	\$77,625,188
Worcester, Mass.—Pop. 170,000	\$76,742,250
Dayton, Ohio—Pop. 130,000	\$64,421,237
Birmingham, Ala.—Pop. 195,000	\$61,099,234
San Diego, Cal.—Pop. 100,000	\$49,053,010
Tacoma, Wash.—Pop. 108,094	\$43,988,540
Fall River, Mass.—Pop. 130,000	\$34,388,724

REGINA FINANCIAL STANDING.

The following figures showing in tabulated form the bank clearings for Regina for five months, show this city to exceed in clearings many cities of much larger population. (First five months, 1916).

City.	Population.	Bank Clearings.
Regina	40,000	\$38,011,118
Fall River	130,000	\$34,388,724
Fort Wayne, Ind.	75,000	\$29,560,280
New Bedford, Mass.	113,000	\$28,829,308
Springfield, O.	60,000	\$21,064,060
Lowell, Mass.	110,000	\$20,821,165
Holvoke, Mass.	58,700	\$19,971,380
South Bend, Ind.	67,500	\$17,579,863

REGINA BANK CLEARINGS.

The following chart shows the bank clearings for Regina for five months of 1916 in comparison with the clearings for the same period of cities of equal or larger population.

Regina—Pop. 40,000	\$38,011,118
Fall River—Pop. 130,000	\$34,388,724
Fort Wayne, Ind.—Pop. 75,000	\$29,560,280
New Bedford—Pop. 113,000	\$28,829,308
Springfield, O.—Pop. 60,000	\$21,064,060
Lowell, Mass.—Pop. 110,000	\$20,821,165
Holvoke, Mass.—Pop. 58,700	\$19,971,380
South Bend, Ind.—Pop. 67,500	\$17,579,863

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Vancouver Financial Standing

The following table shows in tabulated form the bank clearings of Vancouver for the twelve months of 1915 as compared with cities of larger population.

City.	Population.	Bank Clearings.
Vancouver	150,000	\$281,575,949
Rochester, N.Y.	250,000	\$254,886,044
Oakland, Cal.	200,000	\$181,474,320
Scranton, Pa.	150,000	\$164,023,379
Syracuse	150,000	\$156,061,318
Worcester, Mass.	170,000	\$141,819,041
Birmingham, Ala.	190,000	\$130,156,056

VANCOUVER BANK CLEARINGS.

The bank clearings for the twelve months of 1915 for Vancouver were much larger than for cities of equal and larger populations in the United States as is indicated in the following chart.

Vancouver—Pop. 150,000 \$281,575,949

Rochester, N.Y.—Pop. 250,000 \$254,886,044

Oakland, Cal.—Pop. 200,000 \$181,474,320

Scranton, Pa.—Pop. 150,000 \$164,023,379

Syracuse.—Pop. 150,000 \$156,061,318

Worcester, Mass.—Pop. 170,000 \$141,819,041

Birmingham, Ala.—Pop. 190,000 \$130,156,056

Armstrong Whitworth of Canada, Limited

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High Speed and Carbon Tool Steel,
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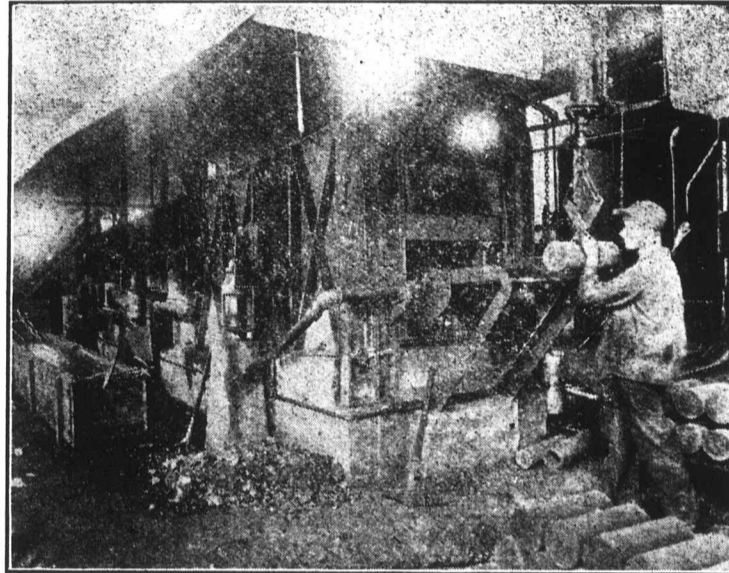
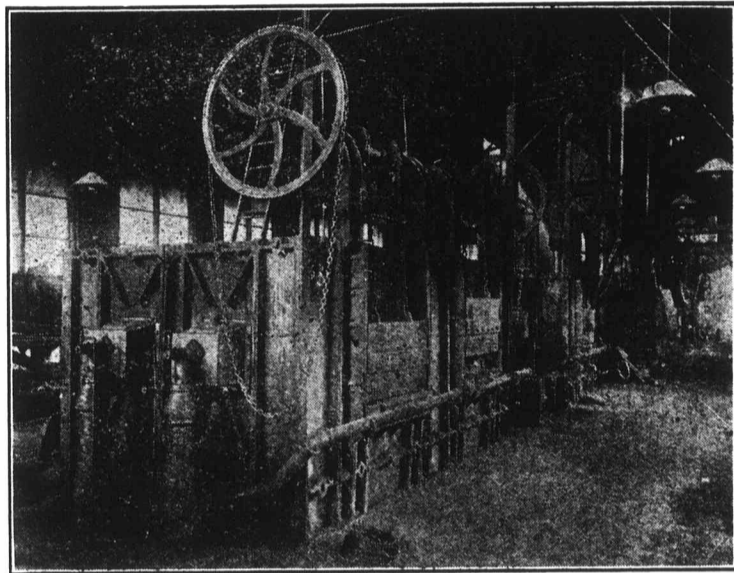
Dominion Bank Building
Toronto, Ont.

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Works for the Manufacture of
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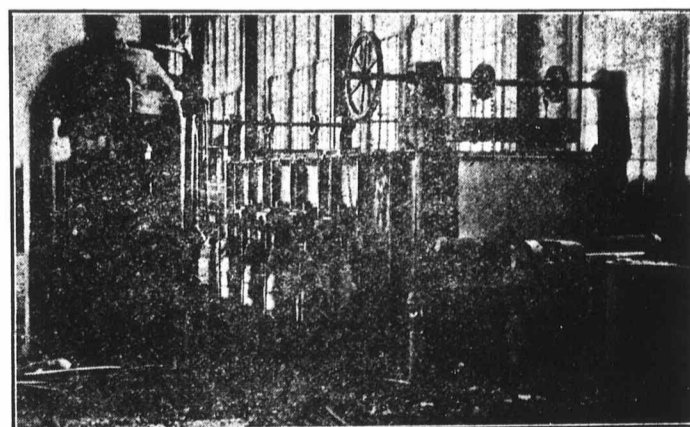
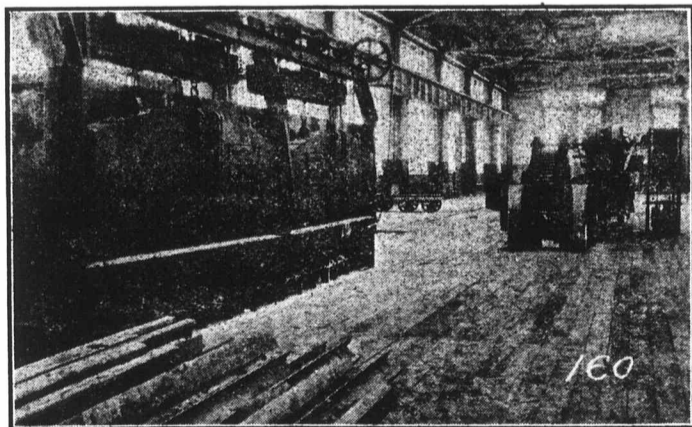
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Remarkable Growth of Canadian Tube and Iron Company

Now Employs Over 800 Hands. Work Enough to keep Busy Many Months.

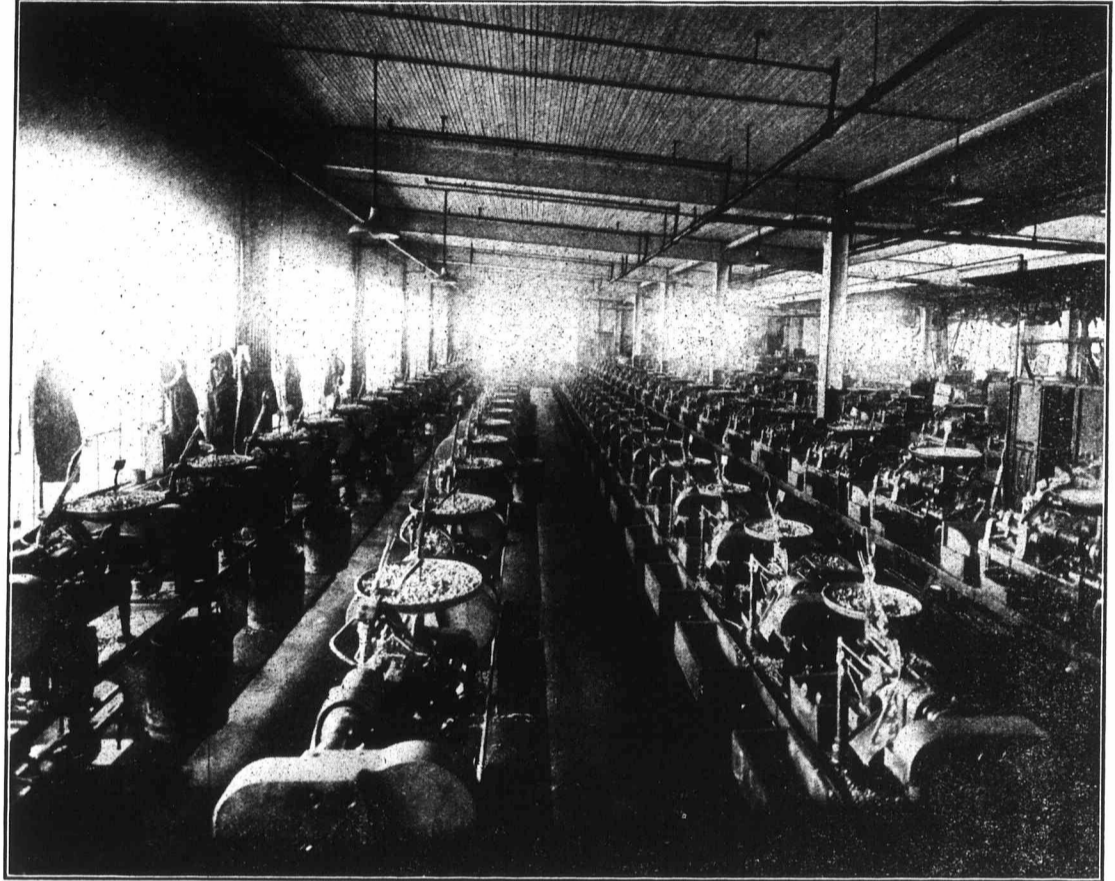
Incorporated in 1910 and employing at first 200 hands the Canadian Tube and Iron Company has had such rapid advancement that to-day the company employs 800 hands. The company is capitalized at \$1,000,000 and has a bond issue of \$250,000. The directors and chief officials are: John W. McConnell, President; James L. Waldie, Vice-President and Managing Director; Dr. Milton L. Hersey; John C. Hodgson; Albert H. Hough; William Mosley and Herbert Worrall, Secretary-Treasurer.

The products of the company which are marketed throughout Canada and Newfoundland and also includes an export business with Great Britain, Australia, New Zealand and South Africa at present consists chiefly of munitions, supply Shell Steel Bars, Forging and Machining Shells, etc., and in this work the company is operating to full capacity.

The company's works are situated on Lachine Canal and occupies about 15 acres of land. It has shipping facilities by both rail and water, and their products include wrought steel pipe, couplings, black and galvanized, bolts, nuts, rivets. The company also acts as selling agents for the Canadian Rolling Mills Company, which was incorporated in 1912 and employs about 400 men, with a capitalization of \$1,000,000 and a bond issue of \$250,000. The directors and chief officials of the Canadian Rolling Mills are: James L. Waldie, President and Managing Director; John W. McConnell, Vice-President; Dr. Milton L. Hersey, John C. Hodgson, A. H. Hough, James Dunlop and Herbert Worrall, Secretary-Treasurer.

The output of the Canadian Rolling Mills includes bar iron and steel rounds, squares and plate and twisted bars for reinforcing. The company is at present largely engaged in rolling shell steel bars for the manufacture of shells and is also operating to full capacity. The company's works are situated on Lachine Canal, Emard Ward, and occupy about 15 acres of land.

The Colonial Wire Manufacturing Company, Limited, also working in conjunction with the above companies, was incorporated in 1913 and is now employing 250 hands. This company is capitalized at \$500,000, with a bond issue of \$150,000, and its di-



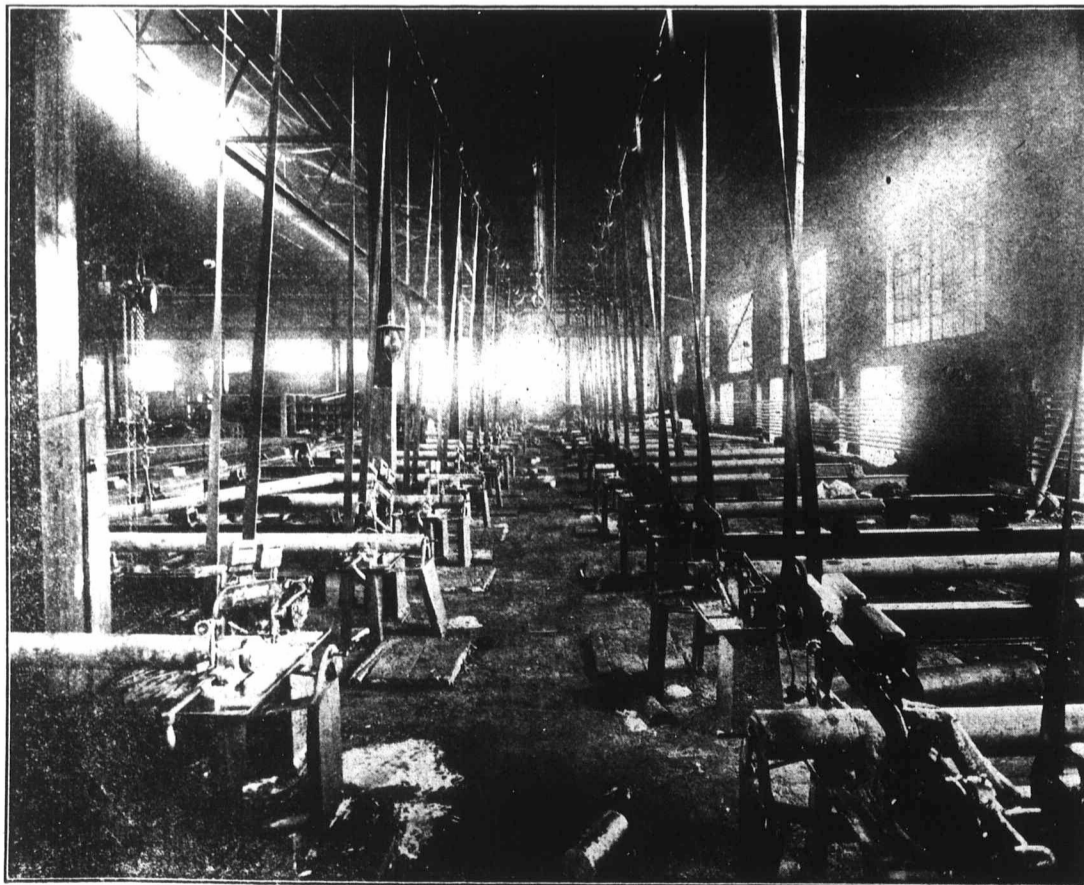
Wood Screw Department Colonial Wire Mfg. Company, Limited.

rectors are: James L. Waldie, President and Managing Director; John W. McConnell, Vice-President; Dr. Milton L. Hersey, A. H. Hough, J. A. Phillips, James Dunlop, John C. Hodgson and Herbert Worrall, Secretary-Treasurer.

The products of the Colonial Wire Manufacturing Company are smooth steel wires, tinned mattress wire, fine wires, wire nails, fence staples and wood screws. This company's works are also situated on

Lachine Canal, Emard Ward, occupying about 5 acres of land. The company is operating to full capacity on both domestic and export orders.

With all the plants working to capacity, the officials have faith in the outlook for Canadian trade, believing that after the war a strong immigration policy and encouragement to manufacturers will be necessary to develop the industrial resources of the country.



Shell Steel Cutting Department Canadian Rolling Mills Company, Limited.

IRON AND STEEL EXPORTS TO UNITED STATES.

The iron and steel exports from Canada to the United States in 1915 were valued at \$4,218,054 as compared with \$3,336,429 in 1914, and \$2,825,338 in 1913. These were natural increases and were in no way due to war orders. The iron and steel exports to United States are comparatively small in comparison with such exports from Canada to other countries. The increases have been fairly large, having practically doubled since 1911. The iron and steel exports from Canada to the United States for the year 1911 to 1915, show as follows:

1911	\$2,172,385
1912	1,723,358
1913	2,825,338
1914	3,336,429
1915	4,218,054

Included in these exports are agricultural implements, castings, hardware, machinery, pig and ore iron, scrap iron and steel and various other iron and steel products. In addition to these iron and steel exports, Canada exported other metals, minerals and manufactures therefrom to the value of \$39,218,168, so that the iron and steel exports are a small proportion of the total mineral exports. Canada's biggest iron and steel exports are to Europe.

Canadian Tube & Iron Company, Limited

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Works: Lachine Canal, Montreal

Manufacturers of

Smooth Steel Wires — Bright, annealed, oiled and annealed
Tinned Mattress Wire, Broom Wire, Fine Wires — Plain and Galvanized
Fence Staples — Wire Nails — Wood Screws
Pump Rods — Plain and Galvanized

SELLING AGENTS:

Canadian Tube and Iron Company, Limited, Montreal

Canadian Rolling Mills Company, Limited

Works: Lachine Canal, Montreal

Manufacturers of

Bar Iron and Steel—Rounds, Squares and Flats.

ALSO

Twisted Steel Bars for Reinforcing

SELLING AGENTS:

Canadian Tube and Iron Company, Limited, Montreal

EDMONTON BANK CLEARINGS.

The following chart shows the bank clearings of Edmonton for the first five months of the present year in comparison with cities of equal or larger population for the same period. Edmonton leads many cities of populations fifty to one hundred per cent larger. The Edmonton clearings for this year have shown substantial increases over last year.

Edmonton.—Pop. 72,000	\$44,057,701
Tacoma, Wash.—Pop. 108,094	\$43,988,540
Fall River, Mass.—Pop. 130,000	\$34,388,724
New Bedford.—Pop. 113,000	\$23,829,308
Erie, Pa.—Pop. 85,000	\$27,609,294
Lowell, Mass.—Pop. 111,000	\$20,821,165

EDMONTON RANKS HIGH.

The following figures showing in tabulated form the bank clearings of Edmonton for the first five months of 1916 as indicated in the accompanying chart show that Edmonton's financial business exceeds that of cities of from 100,000 to 130,000 population. These figures for 1915 are in face of considerable financial depression, for unlike many of these cities with which it is compared, Edmonton is not yet a big manufacturing centre.

The first set of figures indicates the five months clearings for this year. The second set indicates the twelve months clearings for 1915.

City.	Population.	Bank Clearings.
Edmonton	72,000	\$ 44,057,701—5 months, 1916. \$105,834,550—Year, 1915.
Tacoma	108,094	\$ 43,988,540—5 months, 1916. \$ 98,668,247—Year, 1915.
Fall River	130,000	\$ 34,388,724—5 months, 1916. \$ 65,517,885—Year, 1915.
New Bedford	113,000	\$ 23,829,308—5 months, 1916. \$ 50,945,931—Year, 1915.
Erie, Pa.	85,000	\$ 27,609,294—5 months, 1916. \$ 52,968,920—Year, 1915.
Lowell	110,000	\$ 20,821,165—5 months, 1916. \$ 42,979,362—Year, 1915.

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MONTREAL, P. Q.

Standard Underground Cable Co. of Canada, Limited

General Offices and Works : Hamilton, Ont.

This company was organized in 1911 under the laws of the Dominion of Canada with an authorized capital of \$1,000,000, \$850,000 of which is paid in cash. In the same year its very complete and modern plant was erected, consisting of departments for wire drawing, wire tinning, stranding, insulating, cabling, braiding, lead covering and armoring. The manufactured products consist of bare and insulated electric wires and cables of all kinds.

In addition to supplying normal demands of customers, the company is manufacturing or supplying considerable quantities of the class of war munitions for which its facilities are adapted, among which are large quantities of field telephone cable and copper tubes for shrapnel bands. The latter material, not being manufactured anywhere in Canada at present, is supplied in conjunction with its associate American company, which has been a large supplier direct to the allied governments of various copper, brass and bronze products.

Although the Hamilton company has had a comparatively brief manufacturing experience in Canada, "Standard Underground" products have been well and favorably known and in extensive use by most of the important light and power companies in the Dominion for many years and the Canadian company, with its exceptional manufacturing and shipping facilities has been able to benefit fully by the experience of its associate company both past and present.

The company's financial resources are ample, enabling it to carry large stock of raw and finished materials thus insuring prompt filling of orders and affording an additional guarantee of its ability to meet any obligation undertaken.

As the company's business has grown it has extended its facilities for rendering service and at present, in addition to its general offices and works at Hamilton, has branch sales offices in Montreal, Que. and Winnipeg, Man. These offices are in charge of experienced managers capable of advising customers in regard to their requirements and of rendering valuable service in various ways.

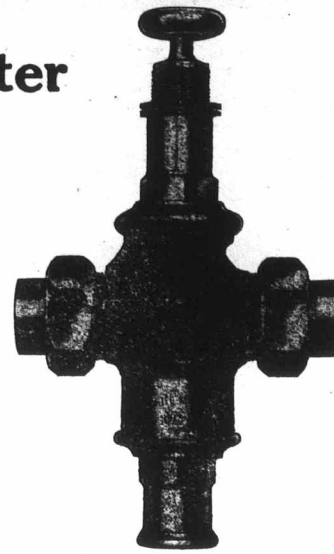
MANUFACTURERS OF Steam and Water Specialties

The J.M.T. Pressure Regulator

with patented Valve is recommended for every service where a continuous and positive low steam or air pressure is required off a higher pressure line.

Guaranteed to maintain accurate efficiency regardless of any variation whatsoever on the low pressure side.

Made in all bronze ½ inch to 2 inch, larger sizes in Iron Body, bronze mounted.



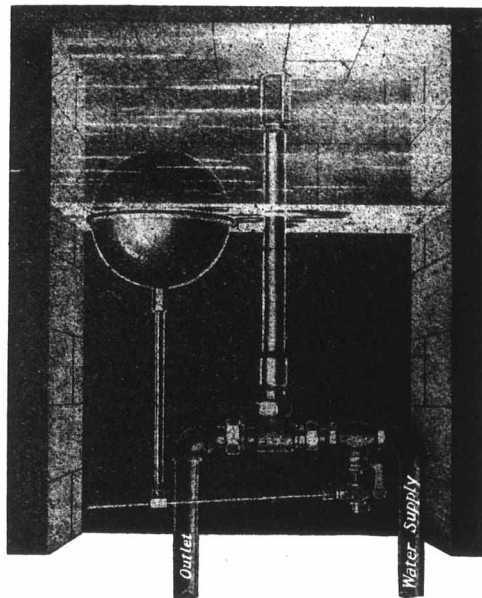
Morrison J.M.T. Pressure Regulator

Morrison Automatic Cellar Drainer

Operates by water pressure. Automatically removes accumulations of liquids from Excavations, drains cellars or any flooded area.

Operates from 10 lbs. upwards. A powerful lifter with large capacities.

Write for particulars.



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MFG. CO., LIMITED
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BRASS FRICTION TUBES,
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CONTAINER EXPLODERS, ADAPTERS
AND SMALL DRAWN STEEL WORK.

We are completely equipped to manufacture any Screw Machine Products from ½ in. to 4¼ in. diameter.

Also Loading of Friction Tubes and Primers

**THE PACKING PLANT
INDUSTRIES OF THE WEST.**

The packing plants of the west contribute one of the largest items in the manufacturing output of the four provinces and to the exports from Manitoba, Alberta and Saskatchewan. There are now large packing plants in Edmonton, Calgary, Winnipeg, Saskatoon and smaller plants in many other western cities. These plants have been a big encouragement to the live stock ranching industries of the four provinces and have resulted in big increases in the live stock production. The live stock industry backed by the packing plants is becoming almost as valuable as the grain growing industries.

The packing plants give employment to a large number of men in the three prairie provinces and constitute one of the most important manufacturing industries of the west, fed with raw material, also produced in the western provinces. The canned and other meat exports of Canada have been largely increased through the production in the western provinces.

These provinces still offer unlimited opportunity for live stock ranching, feeding in the open being possible the year round in sheltered locations, and the packing plants providing a constant market for all live stock products. Live stock ranching on a large scale is likely to follow the close of the war. Already most of the grain-growers are devoting part of their time to live stock.

CANADIAN TRADE WITH FRANCE.

Canada's total trade with France for the fiscal year 1915 was worth \$22,847,315 of which \$14,595,705 was in exports to France and \$8,251,610 in imports from France. The exports for the year showed more than 400 per cent increase over the previous year, while the imports showed a fairly large decrease. The total trade with France showed an increase for the year of over \$4,000,000. Since 1911 Canadian trade with France has increased over 80 per cent. The 1916 exports showed a big increase over 1915, being largely in war materials.

**Iron and Steel Basis of all
Modern Developments**

C. W. Sherman, President of the Big Shell Manufacturing Company at Hamilton Believes Construction Requirements After the War Will Equal the Present Demand for Steel.

"That prosperity is reflected to all lines of trade by the increased manufacture of steel, either for destructive or constructive purposes, is well established economic fact. Canada abounds in natural resources, developed and undeveloped. Under the proper stimulus there is no doubt that the development of this country during the next few years will be much greater than it has been in the past. Canada's advancement and future prosperity will go hand-in-hand with the further development of industry, mining and agriculture."

Such is the opinion of C. W. Sherman, president of the Dominion Steel Foundry Company, Limited, of Hamilton, who continues—"Iron and steel is the basis of all modern developments and if Canada fosters the manufacture of iron and steel to the full extent of her own requirements, prosperity will continue after the war. I am of the opinion that the construction requirements of steel after the war will be quite equal to the demand at the present time.

"Canadian industries should be developed to the point of supplying our own mechanical requirements for agriculture, transportation and city building. This should cover everything as far as possible from the raw material to the finished products."

The Dominion Steel Foundry Company, Limited, at Hamilton which has an authorized capital of \$1,000,000 common and \$1,000,000 preferred, is engaged principally on making munitions which include steel blanks for 4.5-in. shells, 60 pound shells, 6-in. shells and 9.2-in. shells. The company is also engaged in forging 9.2-in. shells, and machining and assembling 18 pound shrapnel and 4.5-in. high explosives. The common stock of the company is all paid up and the preferred has \$720,000 paid up.

**The J. C. McLaren
Belting Company
Limited**

ESTABLISHED 1856.

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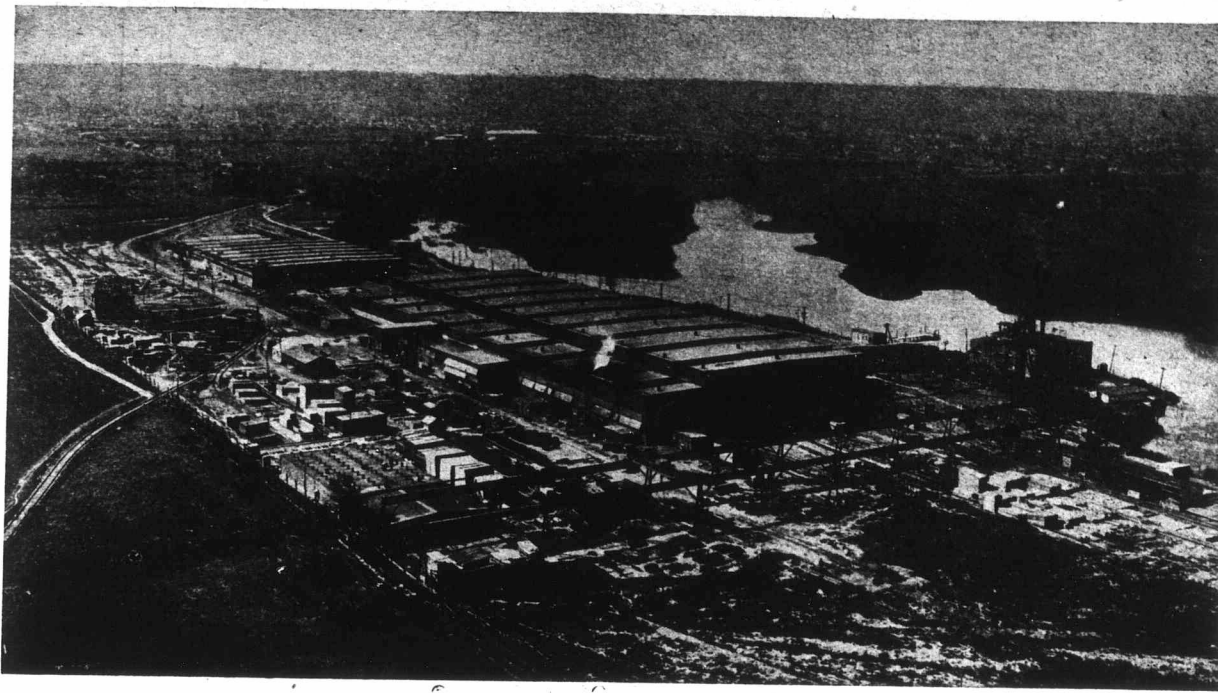
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Railway Contractor

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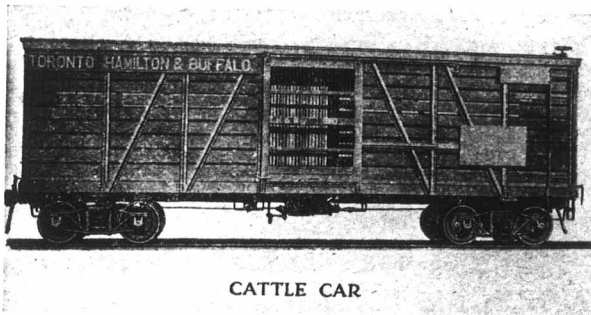
MONTREAL, P.Q.

RENFREW, Ont.

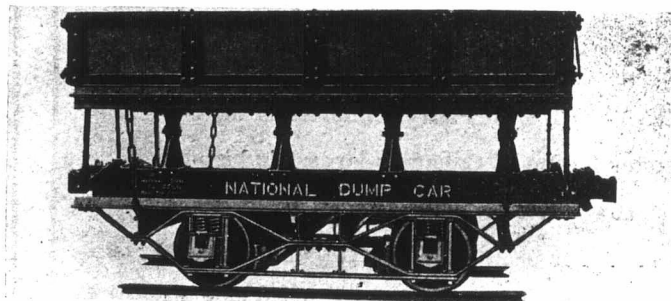


FREIGHT CARS

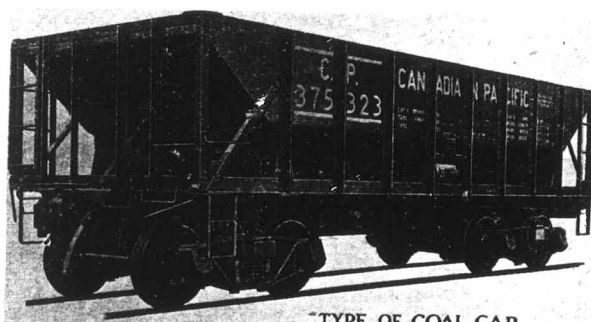
The manufacture of freight cars of all types is an important branch of our business. The illustrations of this page are examples of but a few of the various orders we have completed. We also make contractor's dump cars, logger's cars and special transportation equipment. Enquiries invited for all classes of rolling stock, for domestic or foreign orders.



CATTLE CAR



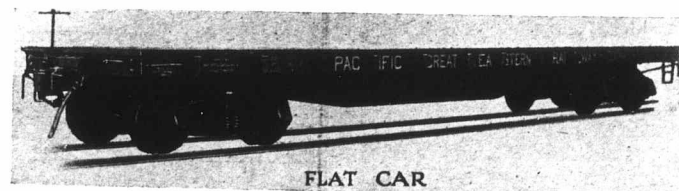
NATIONAL DUMP CAR



TYPE OF COAL CAR



CABOOSE



FLAT CAR

NATIONAL STEEL CAR COMPANY LIMITED

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SHAUGHNESSY BLDG.

Works and Operating Offices:
HAMILTON, CANADA

Building Up Canada's Export Trade

By W. W. SWANSON.

In the past Canada's manufacturers have placed too slight emphasis upon the foreign market. The domestic field, in the last decade at least, has offered a continual expanding market for manufacturing products; and in their eagerness to take advantage of favorable conditions at home the great neutral markets of the world have been largely neglected. This is not only true of Canada but of the United States also. The westward expansion of the Republic during the last fifty years has concentrated attention upon the domestic demand for manufactures, and it has been only within the last decade that the words "American Invasion of Europe," have acquired significance. While, of course, the home market always will be of enormously greater value to producers, both in the United States and Canada, yet the progress that has been made in manufacturing methods in both countries in recent years has made it imperative that they should seek wider opportunities for the sale of their goods. The United States, since the outbreak of war in Europe, has turned eagerly to those neutral markets which were formerly shared with the great European Powers, in order to take advantage of the golden opportunities presented to the Republic through the European war. Plans are being prepared even now for further invasion of Europe at the close of hostilities and American producers hope to secure a large share of the business that will be developed at the close of the war, and also to play a prominent role in the reconstruction of the various sections of France, Belgium, and Poland that have been laid waste. If the manufacturers of the United States therefore, are already preparing plans for a larger business in Europe, much more is it essential that our manufacturers should take time by the forelock and immediately develop an organization in co-operation with the Government to look after their industrial interests at the close of hostilities. It is doubtful whether the United States will play as large a part in the reconstruction of Europe as

her captains of industry suppose, since it cannot be denied that both in the camp of the Allies and in that of the Teutonic Powers there is a certain measure of unfriendly feeling against the great Republic. The United Kingdom will in all likelihood play the leading role in the upbuilding of Continental Europe after the war. This will come about in all probability not only because the United Kingdom has borne the financial brunt of the war, but because she is situated in a position of strategic importance with respect to Continental needs and markets, and her great merchant marine will also count for much. It may be reasonably expected that Canada who has taken an active part in the war will, other things being equal, also have exceptional opportunities to share in the construction work that must be undertaken and in the greater markets that will be available in Russia, France, Belgium, Holland and the Scandinavian countries at the close of hostilities.

In the past it has been the custom, both in the United States and Canada, to turn to foreign trade with any degree of interest and enthusiasm only when there were dull times at home. From henceforth, however, the great manufacturing industries of the North American Continent will be obliged to depend upon the foreign market to absorb surplus supplies. Now, as a matter of fact, Canadian manufacturers are not properly equipped to take advantage of trade opportunities in the foreign field, either now or at the close of the war. We have still a great deal to learn from the despised foreigner and an incredible amount to learn about him. The first essential in building up a foreign trade is to provide our manufacturers with a corps of experts who have at their command a working knowledge of the chief foreign languages, of the tariff schedules in each particular country, and of the various trade regulations that obtain there. These experts, however, are conspicuous at present only by their absence. Before the war England and Germany — the latter country in particular — had done more in this direction than other nations. They had an army of trained business agents who penetrated all

the countries of the world where there were opportunities for trade expansion. Not only so, but both these nations had widely ramified their banking interests, so that it was possible not only to sell to importers from China to Peru, but also to finance these sales. If Canada expects at the close of hostilities to secure that share of foreign trade for which her manufacturers are looking, it is imperative that even now some plan be worked out whereby a body of trade experts who have specialized in foreign trade will be available.

What then is the plan to be followed? The Standard Oil Company gives some training in the methods of acquiring business in neutral markets to those agents whom it expects to send abroad to develop business for it. Aside from this company, however, we know of no industrial organization, either in the United States or Canada, that has taken up such work. Under the able administration of Sir George Foster a good deal of vitality has been injected into the Department of Trade and Commerce at Ottawa, but still a vast amount of development work remains to be done before our manufacturers are given that aid to which they are entitled while competing with powerful rivals in foreign markets. It is necessary that the manufacturers themselves, however, co-operate to that end. It should be possible, for example, to give in our great universities — at McGill, Queen's and Toronto — the work necessary to fit men who are attracted to the field of foreign trade as will enable them to render expert assistance to Canadian exporters. It has been suggested that the Manufacturers' Association grant scholarships to a selected number of men who are given all their time during the College Session to preparing themselves along scientific lines for work in the export field, while in the summer they would be employed in connection with the particular business of the group of businesses in which they are particularly interested. These men would learn in a practical way such foreign languages as would be essential in carrying on their work; they would also

(Continued on page 108).

The **IMPERIAL OIL COMPANY, Limited**, is the outstanding factor in one of Canada's largest industries. It has four refineries between coast and coast, either operating or under construction. It refines 16,000 barrels of crude oil per day. It employs 5,000 persons. It maintains the finest system of distribution of its products yet conceived, which system includes 800 sub-distribution stations. Its manufacturing methods are modern, and its products, petroleum fuels and oils of all kinds, are of the highest quality. The Company goes far to build the prosperity of Canada and to furnish its public with the best products at the lowest possible cost.



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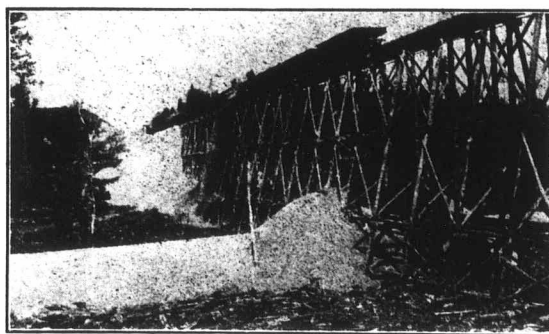
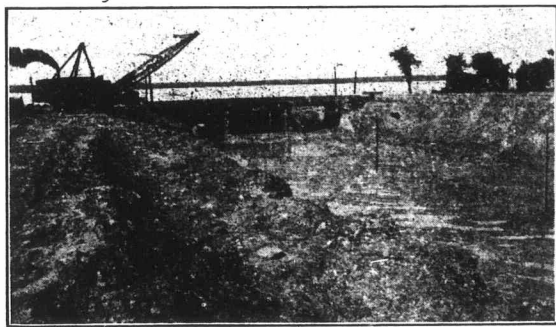
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Concluded from page 106).

be given a thorough training in economics, commercial geography, business administration and so forth, as well as the business practices and methods of the countries to which they would be sent. They should also have a thorough grounding in foreign exchange and the principles of corporation finance. Such a course might be made to cover a period of two to four years — the particular avenue into which the student hoped finally to enter to determine that matter. Since, under our constitution, the Federal Government has control of inter-provincial and foreign trade there seems no real obstacle in the way of its also subsidizing this scheme. Of course, it would cost something and would take several years to work out in all its details, but within a reasonable space of time our manufacturers would have available a corps of experts who would be of enormous service in expanding the trade of this country. Only so can an end be put to the confusion that at present obtains in the Canadian export trade.

However, it would yet remain true that much work would still have to be undertaken by the Department of Trade and Commerce itself if Canadian manufacturers are to achieve permanent success in the field of foreign trade. At present the Department has a number of Commissioners at certain pivotal centres of trade and commerce, but our foreign service is ludicrously undermanned. Nor is it true that much reliance may be placed upon the British Consular Service, although this has been always at the service of our exporters. The British Consular Service has not measured up to its opportunities and is far outdistanced by the American Service. It might be well worth while to glance for a moment at the methods which the United States has followed to build up its export trade since the outbreak of war. At the opening of hostilities a great opportunity was presented to American exporters to expand their foreign trade. At first the foreign exchanges made it practically impossible to carry on such trade, but gradually most of the obstacles arising thereunder were removed. It was discovered, however, that, as in Canada, the manufacturers were as a class woefully ignorant of the foreign market and the foreign methods of doing business. Months went by before the Government was able to control the new and startling situation that had arisen — a situation that gave American traders an unparalleled opportunity to secure a foothold in the foreign field. The Government established in the Department of Trade and Commerce a subsidiary body called "The Bureau of Foreign and Domestic Commerce. The Consuls have been on the whole efficient, considering the multitudinous duties that they were expected to perform; but they were wholly incapable of measuring up to the demands of the new situation occasioned by the war. It was necessary, therefore, to organize a corps of experts — commercial attaches — to act as the business diplomats of the United States, and to represent the commercial and industrial interests of that country. They report to the Bureau concerning trade opportunities in the foreign field, and upon the general aspects of trade in their localities as well as upon any event or circumstance that may open up an opportunity for development of American export trade. The information thus supplied will be used to form the basis of a great business in the export trade for American manufacturers. These commercial attaches are now placed in ten of the most important commercial centres of the world. They are trained scientific observers, are ever on the alert to find opportunities for American business and are paid high salaries and guaranteed permanent positions in order to make it worth their while to stay in the service. In addition to the Consuls and attaches there are special agents of the Bureau in South America, Australia, New Zealand, South Africa, China, India and elsewhere, with roving commissions, on the outlook for new markets for American commerce. One man will specialize in the boot and shoe trade, another in cotton textiles, another in hardware, and others still in lumber, furniture, cement, oils, and so forth. Thus in each line is found a man of splendid training and long experience in the practical side of the business upon which he has been sent abroad to report.

In addition to all these expedients the Bureau of Domestic and Foreign Trade carries on work of the highest importance at home at the head office in Washington. Trade reports are sent out to the manufacturers of the country by the Tariff and Statistical Divisions of the Bureau, and valuable information regarding foreign tariffs and trade statistics are thus made available. These reports are not spread indiscriminately over the country, but are placed with the utmost care and dispatch in the hands of those traders and manufacturers who are

interested. Moreover, the Bureau publishes a daily publication entitled "Commerce Reports," in which information is digested on every conceivable subject that will prove valuable in the export trade, and the very latest and most concise and accurate details possible are given. Then, again, the annual reports of Consuls of Trade and Commerce are published by the Bureau as well as special and individual studies on trade sent in by the special agents who have been studying foreign markets throughout the world.

All this information is so arranged and classified that a manufacturer is not compelled to wade through a formidable mass of material before coming upon the information which he particularly desires. In fact, these reports are so arranged that the reader can get all the information available on any particular industry or line of goods with the greatest ease and with the least waste of time.

It is interesting to observe also that there is in connection with the Bureau a Research Division which takes care of individual inquiries and answers them in the fullest details. This is a vital part of the work of the Bureau of Foreign and Domestic Commerce, and much aid has been extended to manufacturers in this way. There are also eight branches of the Bureau located at pivotal points with respect to the industrial and commercial importance of the United States—namely at New York, Boston, Atlanta, Chicago, San Francisco, St. Louis, New Orleans, and Seattle. These branch offices supplement the work of the main office at Washington and come into more intimate and personal contact than would otherwise be possible with manufacturers and exporters, if the head office alone did all the work.

It is to be hoped that some such organization may be worked out in Canada in connection with the Department of Trade and Commerce, and that the Universities will also do their part in furthering this scheme. It is futile and a sheer waste of money to send men abroad who are ignorant of the business customs, tariffs and languages of the people with which they are to deal. But while all this is true, and while universities and the government can be of enormous service to our manufacturers and traders, yet in last analysis Canadian exporters must depend largely upon their own initiative and enterprise in opening up and developing foreign trade.

At the close of the war, especially, when munition orders fall away, foreign markets will become of increasing importance to Canada in order that the vast sums that have been spent in industrial equipment and in transportation in this country shall not lie idle. It is earnestly to be hoped that even now our manufacturers will do their utmost by mutual assistance and co-operation to develop an organization that will give Canada its relative share of the foreign trade of the world.

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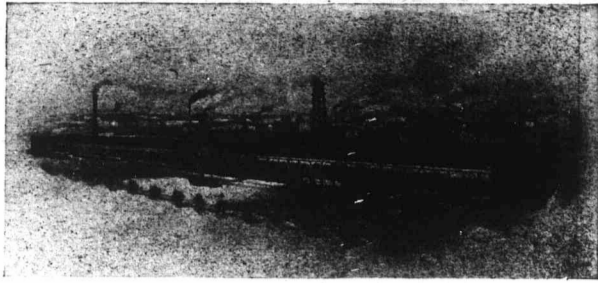
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*Railway Equipment, Rails
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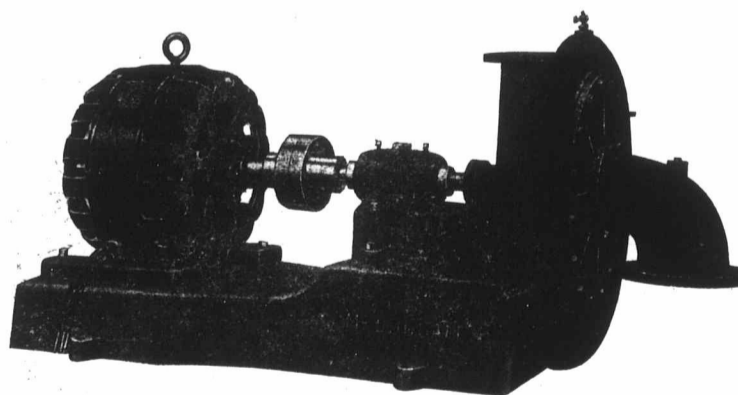
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The James Robertson Company Limited

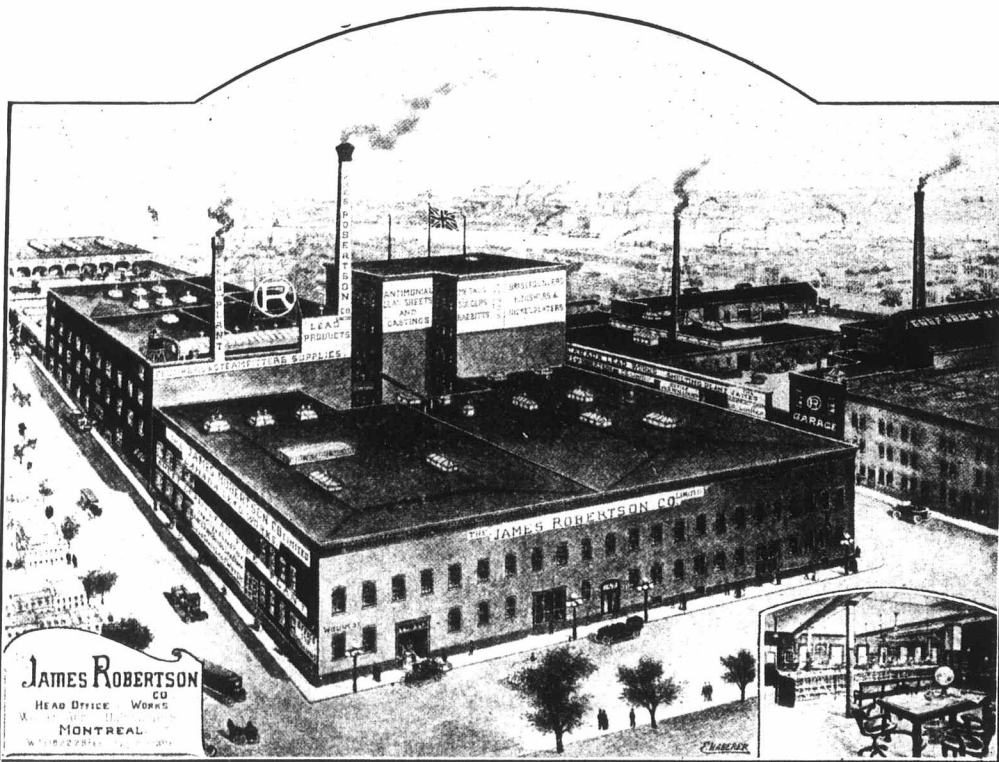
"CANADA'S LARGEST PLUMBING SUPPLY HOUSE."

Founded in 1857 by the Late James Robertson, The James Robertson Company, Limited is to-day the largest Plumbing Supply House in Canada, having offices and large works in Montreal, Toronto, Winnipeg and St. John. The Montreal Works have a floor area of 162,228 square feet and serves the territory of Quebec Province and that portion of Ontario as far west as Kingston. The Ontario territory from Kingston west is covered by the Toronto vines are supplied by the St. John Branch and the Western Provinces from the Winnipeg branch.

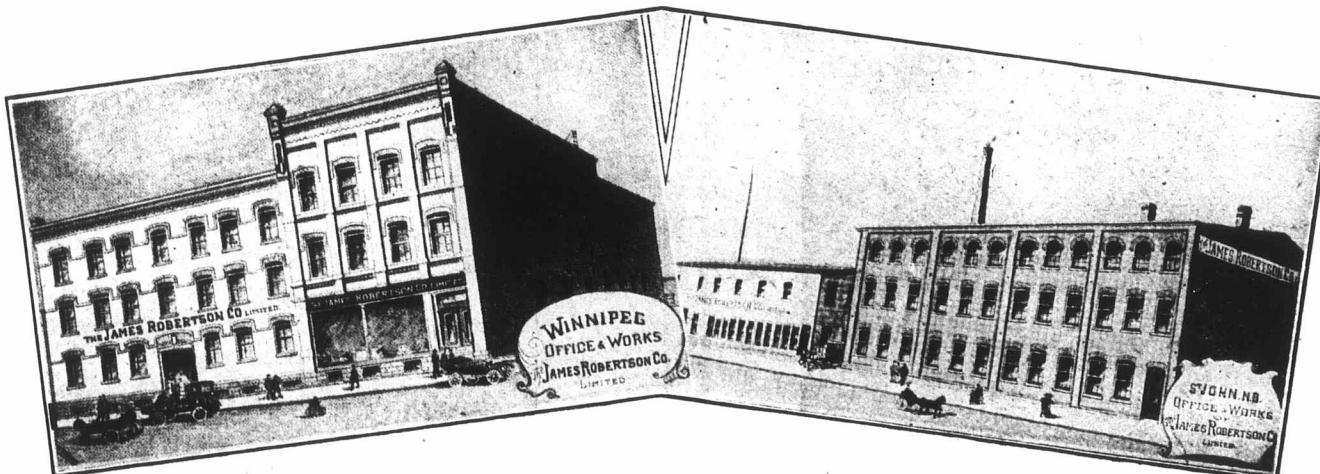
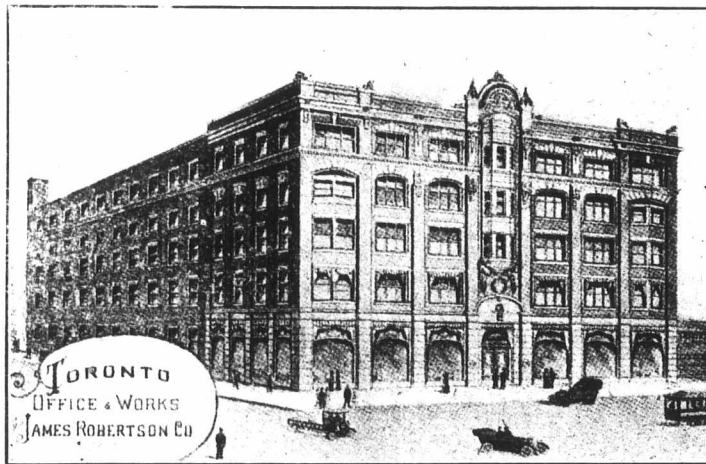
The Company maintains permanent Exhibition and Show Rooms for the display of the latest developments in sanitary fixtures at Montreal Toronto and Winnipeg. Their aggressive and efficient organization have placed their Plumbing Fixtures in many of the largest buildings and institutions in the Dominion of Canada.

The Company has a service department which follows up installations of their fixtures and assists the purchaser by explanation and advice so that the high efficiency of their fixtures can be maintained at the minimum cost.

The Late James Robertson was the first manufacturer of lead pipe in Canada and this product is now made in all their plants and they not only distribute this product through the whole of Canada but do a large export business as well. They manufacture lead water pipe and drain pipe from one quarter inch to twelve inches in diameter, and also roll sheet lead of any desired thickness in sheets up to eight feet in



The James Robertson Company, Limited have made famous their trade mark, which is



width. An interesting part of this plant is devoted to the manufacture of drawn lead traps and bends.

The James Robertson Company, Limited are also very large manufacturers of white alloys such as Babbitt Metals, Solders and Type Metals. The Company are sheet metal distributors and their brass foundries turn out a large variety of products in brass, bronze and aluminum.

Ever taking the lead in adopting advanced ideas in their service department, the Company has issued for distribution to dealers, one of the handsomest catalogues of Sanitary Fixtures ever issued by any Canadian business house. This catalogue is a volume of approximately two hundred and seventy-five large pages, profusely illustrated by half-tone engravings, printed on very high grade ivory paper and bound in handsome royal blue cloth covers. This catalogue is an innovation and is certainly the "Blue Book" of Sanitary Fixtures in the Dominion of Canada. This catalogue with all its advanced ideas in sanitation has been published after months of very arduous study and the expenditure of a large amount of money, and in conjunction with the Company's Exhibition Rooms at Montreal, Toronto and Winnipeg gives an unequal service to Architects, Builders and the Plumbing Trade generally.

In addition to the Sanitary Fixture Catalogue which this Company has published, is a complete fitting catalogue quite recently distributed which gives a very comprehensive idea of the wide range of fittings which this firm manufacture and carry in stock.

May-Oatway Automatic Fire Alarm Systems

Approved by the Government of Canada, the Governments of Great Britain, New Zealand, Australia, South Africa and all important fire underwriters' associations in the British Empire and U. S. A. Proven by sixteen years of continuous use, and is today protecting hundreds of millions of dollars' worth of property. Self-adjusting, operates at any temperature, and has an unequalled record for saving property from destruction by fire.

Pyrene, the most efficient fire extinguisher known. Hundreds of thousands now in use, especially desirable for automobiles, motor boats, homes, office buildings and factories where oils, paint, varnish and highly inflammable materials are used. Puts out any and all kinds of fire. Approved by underwriters' laboratories.

Chemical fire extinguishers are standard the world over. Approved by underwriters' laboratories and all underwriters' associations.

Davey Automatic Fire Escapes, safest and best fire escape. In use in thirty-one countries. Installed in the Government Buildings at Ottawa and Toronto, the C. P. R. Hotel at Algonquin Park, and many other buildings throughout Canada and the United States.

We are headquarters for fire fighters' supplies.

Ontario May-Oatway Fire Alarms, Limited

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Toronto, Ont., Canada.

THE FUR INDUSTRY OF THE WEST.

In the earlier days the biggest export business of western Canada was the fur exports. Long before it was known that the western prairie could produce wheat or graze live stock, thousands of dollars worth of furs were being brought out annually through the fur traders. Canada's fur trade business is still an important business. The total exports of furs, skins and manufactures of, for the fiscal year 1915 were worth \$2,799,205. In the previous year these exports were valued at over \$5,000,000. The fur exports since 1911 show the following values:

1911	\$4,554,139
1912	\$3,936,552
1913	\$5,263,951
1914	\$5,667,749
1915	\$2,799,205

Canadian Exports to the United States

Large Variety of Products in Canadian Exports to the United States in which are Included Products from the Western Provinces.

In 1915 the value of all the exports from Canada to the United States was \$685,131,392 as compared with \$626,265,385 in 1914, and \$622,432,937 in 1913. A good share of these exports was made up of products from the four western provinces.

The total breadstuff exports for the year were valued at \$8,020,897, which was a decrease over the exports of the two previous years. The total grain products exported from Canada to United States in the year were valued at \$1,017,581, this being made up of bran, oatmeal, wheat flour and not including grains such as barley, beans, wheat, oats, rye, etc., which exported to the United States to the value of \$6,763,339 during the year.

The coal and coke exports to the United States were valued at \$3,769,855 in 1915, which was an increase of over \$700,000 over the previous year. The exports of drugs, dyes, chemicals, etc., to the United States for the year were valued at \$2,868,771, which was a decrease over the previous year.

One of the biggest items in Canadian exports to the United States is fish and this continues to show big increases. The fish exports for 1915 were valued at \$8,313,477 as compared with \$6,705,983 in 1914, and \$5,401,136 in 1913. Since 1912 the value of the fish exports from Canada to the United States have nearly doubled. With a continued increase in the salmon and halibut exports from British Columbia, the total fish exports to United States are likely to pass a value of \$10,000,000 in 1917.

Canada exported in 1915 furs to the value of \$1,440,991 to the United States, which was a decrease over the two previous years. The leather exports, however, showed a big increase reaching a value of \$3,778,806 as compared with \$1,349,791 in the previous year. The total gold and silver exports for 1915 were valued at \$19,571,589 as compared with \$18,778,806 in 1914. The 1916 gold exports will be the biggest in the history of Canada.

The exports of iron and steel and manufactures therefrom, continue to show substantial increases from Canada to the United States. The value for 1915 was \$4,218,054, as compared with \$3,336,429 in 1914, and \$2,825,338 in 1913. This is a substantial increase and unlike the increases in steel exports to Great Britain is not due to war orders or to ammunition exports.

Canada has a fairly large dairy export business with the United States, the value of the dairy exports in 1915 being \$2,849,400 in milk and cream only, as compared with \$1,642,666 in the previous year.

The Canadian exports of metals, minerals and manufactures therefrom to United States were valued at \$39,218,168 in 1915, which was a slight decrease over the two previous years. There were big increases in the value of the paper exports, which increased from \$4,390,144 in 1913 to \$10,616,753 in 1914, and to \$12,950,491 in 1915. The 1916 will show proportionately large increases both in paper and pulp exports.

The exports of provisions from Canada to the United States were valued at \$6,723,884 as compared with \$2,051,809 in 1914. In percentage this was one of the strongest features of the increases in the 1915 exports from Canada. The increases were largely in meats.

Wood manufactures showed a new high record in the 1915 exports to the United States, reaching a value of \$31,019,300 as compared with \$29,308,984 in 1914, and \$29,923,176 in 1913. The biggest items in these exports were planks and boards, wood blocks and other, for pulp and shingles. Wool manufactures and unmanufactured were exported to the value of \$4,529,033 for the year under review, which was a good increase over the previous year.

Canada's Telephone Record

Automatic and Manual for Every Service.

Canada has led the world in telephones. Dr. Alexander Graham Bell invented his first telephone in Canada. The first automatic or girlless telephone that was capable of giving service to any number of subscribers was also invented by a Canadian, and Canada is still keeping in the front rank as far as the manufacturing of up-to-date telephone equipment is concerned. No Canadian need go outside of Canada, and no Britisher need go outside of the Empire to purchase the very best in either manual or automatic telephones.

In regard to the automatic, the Canadian Independent Telephone Co., Limited, has manufactured the Lorimer Automatic, which is designed for service in cities and towns, and will give the most efficient service to any number of subscribers. This system was the first automatic system on the market that would serve one thousand or more subscribers without the service of a girl operator, and was designed by reason of the perseverance of Canadian energy and the expenditure of much Canadian capital.

The Canadian Independent Telephone Co., is also manufacturing the Presto-Phone, which is an automatic telephone system designed particularly for factories, departmental buildings or any inside system where fifteen or more telephones are required. It gives quick, accurate service without any girl operator. The first cost is not very much greater than the cost of the ordinary intercommunicating telephone, and in the larger systems it eliminates the cost of a girl operator.

In manual telephones the Canadian Independent Telephone Co. is manufacturing the very highest class of equipment. Whether it is central energy for the cities or towns, or magneto telephones for the rural party lines, the company is able to supply telephones that are the equal of any made anywhere. In all its products the company established a high standard of quality, and that standard has been maintained—nothing but the very best of workmanship and material entering into the building of Canadian Independent telephones.

It will be a source of much pleasure for the company to supply information in regard to any telephone wants you may have. We desire especially to emphasize the fact that there is no necessity to go outside of Canada for either automatic or manual telephone equipment, you can purchase equipment that is designed by Canadians and made in a Canadian factory for less money than you can purchase any foreign made equipment, and at the same time secure telephone service the equal of any as regards efficiency.

Write for our Bulletins stating what particular telephone service you are interested in.

CANADIAN INDEPENDENT TELEPHONE COMPANY, Limited.

263 Adelaide Street West,
Toronto, Ont., Canada.

CANADA FOREIGN FRUIT BUSINESS.

Canada enjoys a fairly large foreign fruit trade, although the fruit valleys of the Dominion can produce a much bigger quantity for export when the occasion demands. Chief among the fruit exports are apples from the Maritime Provinces to England, and small fruits, including strawberries, etc., from these provinces to United States. The British Columbia exports are chiefly to other parts of Canada. Canada's fruit exports in 1915 totalled \$3,599,372 and since 1911 the fruit exports including nuts, have shown following figures:

1911	\$2,381,518
1912	\$5,879,173
1913	\$4,679,794
1914	\$4,585,916
1915	\$3,599,372



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CANADA—A Country With a Concrete Foundation

DO you notice that the big things of Canada are being constructed of concrete? Why is concrete the chosen material for all our big undertakings? The reason is a simple one. Canadians have the mistakes of the rest of the world to profit by.

We are young—our development is the world's last big development. Among countries, Canada is a stripling—a stripling with unusual strength and unusual qualities. These, aided by a knowledge of what to avoid, are going to result in a country to be described only by the one adjective "wonderful."

Now, to have a wonderful country, it is important that the big public undertakings be conceived and executed in a manner that shall ensure **permanence** as well as **beauty**.

And it is "permanence" that Canada is making sure of when she builds her buildings, her bridges, her highways and her elevators of Concrete.

It is "permanence" that first led our engineers to select concrete for foundations. It was for "permanence" that they later chose it for sidewalks, and then for floors, and for highways and for bridges. To-day, concrete is the material chosen for nearly all big structural undertakings.

The superiority of Concrete is so completely accepted, its use so general, that its adoption for even the most difficult requirement no longer awakens an interest. But so important is concrete to our national development that we **should** try to remember how large a part it plays in the building up of our cities and our rural districts.

How many Canadians for instance know that such important improvements as the following owe their beauty and permanence to Concrete:

HARBOR IMPROVEMENTS—MONTREAL, HALIFAX, WELLAND CANAL.
GRAIN ELEVATORS—MONTREAL, TRANSCONA.
TORONTO—HAMILTON HIGHWAY.
SIMPSON CO.'S BUILDING, TORONTO.
WATER FILTRATION PLANTS.
SEWAGE DISPOSAL PLANTS.

How many of us ever stop to think that, but for concrete our great Harbor improvements, and our great grain elevators—unsurpassed in size and strength by any elevators in the world, would not have been possible.

With the success of Concrete so amply demonstrated, is it not evident that this, the modern building material — permanent, fireproof, economical — must be the standard material on which to base a permanent Canada.

CANADA CEMENT COMPANY

LIMITED

MONTREAL

BANK OF MONTREAL

(ESTABLISHED 1817)

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 TOTAL ASSETS \$390,421,701.

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