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TUESDAY, APRIL 25, 1916.

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The Situation in Britain.

By W. E. Dowding.

The Food Value of Flour and Breakfast Foods.

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The Milling of Rice.

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Strangling Reform

FOR old-fashioned dyed-in-the-wool conservatism commend us to the Legislature of Ontario, if the action taken the other day by a committee on an Ottawa city bill correctly represents the views of that body. The age in which we live is generally called a progressive one, but this can hardly apply to things which come under legislative control at Toronto. There are progressive elements in the city of Ottawa which, after much discussion and deliberation, determined that certain reforms in the system of city government were desirable. It was well understood that an attempt to secure the adoption of these measures for the whole Province would not succeed. The Ottawa people recognized that they would not be justified in attempting to impose their views on the people of other cities where the subjects had not been so fully considered. They thought they were very reasonable when they asked that they might be permitted to manage their own city on principles which they believed to be just. After discussion in which the chief public bodies of the city participated, and after securing the approval of the people by a direct vote, the city authorities sent to the Legislature a bill designed to effect several changes: the granting of the suffrage to women in municipal affairs on the same terms as to men; the creation of the office of city manager; the election of representatives by the system of proportional representation. These proposals received scant courtesy at the hands of the Legislature's committee at Toronto. The merits of the suggested changes were not discussed at all. The proposals were rejected on the ground that changes in the municipal system, if made at all, should apply to the whole Province and not to the city of Ottawa. Such an assertion of the principle of uniformity is a fatal barrier to progress. Uniformity is in many things desirable, but when it is invoked to prevent a progressive community from having the system of government which its people desire, it is carried too far. One can easily understand the unwillingness of some communities to make such changes as were proposed at Ottawa. But even those communities should be glad to see the new methods applied and tested by the rate-payers of any city who have studied them and have faith in them. Take, for example, the question of proportional representation, which is now engaging the attention of the most thoughtful minds in every democracy. How could the adoption of that system in Ottawa do harm to the citizens of any other part of Ontario? There is no good reason why uniformity should be insisted upon in such a matter. On the contrary, it is much to be desired that the new principle, the theory of which commends itself to most intelligent readers, should be put into practical operation in our country to enable the public generally to study

it. The proposal of the capital city of the Dominion to try out some of these progressive measures should have been welcomed by the Ontario Legislature, instead of being unceremoniously thrown out.

Asquith Triumphs Again

ONCE more the British Prime Minister has come triumphantly through the storm. The waspish Northcliffe press has repeatedly invented crises that were to end in the overthrow of the Asquith Ministry. Frequently the crisis was entirely imaginary. Occasionally it meant complications and difficulties which in less skilful hands would make serious trouble, but which disappear under the master touch of the Prime Minister. A few days ago Mr. Asquith himself frankly informed the House of Commons that a question had arisen on which there were differences in the Cabinet, and that these might prove unsurmountable. He asked for a few days for further consultation. The difficulty was understood to be in relation to conscription. Mr. Asquith had always held that conscription should only be resorted to in extreme conditions. He evidently thought that the moment for taking the extreme step had not yet arrived. Before the expiry of the delay for which he had asked, an official statement was issued to the effect that the crisis had passed, and a united Cabinet had agreed to a further postponement of conscription—an announcement that has given much satisfaction to the country, for the breaking up of a Cabinet which is a coalition of all parties would at this stage of affairs be a disaster.

The unpleasant feature of the question is that Mr. Lloyd George has permitted himself to be placed in a position in which his loyalty to the Prime Minister has been questioned. When a Liberal journalist of the prominence of Mr. A. G. Gardiner, of the London Daily News, is moved to address an open letter to the Minister of Munitions, accusing him of conspiring against Mr. Asquith, it is evident that there is a strong feeling in the Liberal ranks. Mr. Lloyd George has rendered splendid service as a Minister. Let us hope that whatever has caused the present friction will be satisfactorily explained, and that good relations between him and his colleagues may be restored.

On the other side, it is particularly gratifying to find that the Conservative leader, Mr. Bonar Law, has given Mr. Asquith loyal co-operation. Once or twice Conservatives in the House have shown a disposition to unreasonably criticize the Government, and Mr. Law has deemed it necessary to intimate that such attacks were unfair. The hint dropped by him that he could not retain his leadership of the party if such criticism continued seems to have had a wholesome effect.

Mr. Wilson Acts

BOTH in the United States and abroad, President Wilson has frequently been criticized for his great caution in his negotiations with Germany in matters arising from the war. His many "notes" became the subject of derision in some quarters. He manifested a patience that was roundly condemned. Mr. Wilson evidently regarded war with Germany, or anything that appeared likely to lead to war, as a much more serious matter than it seemed to be to his critics, and he labored earnestly to bring all negotiations to a peaceful end. The patience he thus exhibited, even in the face of great provocation and widespread criticism, gives a tremendous force to the decision which he announced to the joint session of Congress and conveyed to Germany in a formal despatch which is now in the hands of the authorities at the Foreign Office in Berlin. Unless Germany forthwith agrees to abandon her submarine warfare against passenger ships on which non-combatants travel, the United States will withdraw her Ambassador from Berlin and break off all diplomatic relations with the German Empire. It is not easy to see how the German Government can any longer evade the issue. To assent to the proposal of Mr. Wilson or to face a condition not far from actual war with the United States seems to be the way now open to Germany.

The breaking off of diplomatic relations with the Kaiser's Government will not necessarily mean a declaration of war by the United States. There are precedents to show that under such conditions war may perhaps be averted. But a refusal of the American demand will mean a determination by the Germans to continue their submarine policy, and its continuance will mean a probable repetition at an early day of attacks on ships on which Americans are travelling on peaceful missions. And another case like that of the Lusitania or the more recent Sussex would create conditions under which war could hardly be longer avoided. Meanwhile all neutral nations must be profoundly affected by the action of the United States Government.

Prohibition Troubles

NO great reform is accomplished without causing some disturbance of existing conditions and some embarrassments in the application of the new order of things. It is not surprising that the Ontario Government have met some snags in their present movement towards prohibition.

Their first trouble, after the determination to enact the legislation became settled, was with the druggists of the Province. The legislation, as in other places, contemplated that liquors might be sold for purposes of science or medicine, and the druggists were expected to be prepared to attend to this part of the business. But many of the druggists object to the participation in the business that is offered to them. They have learned from the experience of other communities that the selling of liquor by druggists under prohibitory laws does not elevate the character of the drug business proper. It is generally believed that many of the visitors to the shops under such conditions have but a very limited interest in science, and that they give the word medicine a very liberal interpretation. Many customers expect the doctors and druggists to hold similar views, and are disposed to resent any rigid application of the law. Altogether the druggists think that any profit there

may be in such selling of liquor is outweighed by a deterioration of the drug business proper, and of the general standing of the establishment. So the Ontario Government may have to establish shops of their own to supply the liquors in the cases in which the selling is still to be allowed.

Next came the hotel question. It may not be a pleasant fact, but a fact it probably is, that the sale of liquors in hotels, at bars or otherwise, has been one of the most profitable parts of the hotel business. Indeed, it has often been said, with much truth, that it was only through the sale of liquors to the other patrons that the travelling prohibitionist could obtain comfortable accommodation at reasonable rates. There have been many honorable exceptions among the hotels, but most experienced travellers will agree that the temperance hotel in the town was not the one in which they expected to find the highest comfort. Now that the profitable bar branch is to be cut off the fear is expressed that in some towns and villages the hotels will be unable to continue business and that the places will be left without accommodation for the travelling public. Perhaps the anticipations in this direction are needless. Perhaps the public will meet the situation by cheerfully paying the higher prices which the hotel men will demand. Perhaps—but this is a naughty suggestion—the prohibitory law will be as gently enforced in Ontario as in some other places, and the hotels will, without license, do business as before. The Ontario Government, however, admit that there is some ground for anxiety as to how the public are to be accommodated. Legislation has been enacted to authorize municipalities to aid hotels by tax exemptions, and even to subsidize hotels to a moderate extent if such action should be deemed expedient.

The Bilingual Question

IN the Ontario Legislature the Opposition leader, Mr. N. W. Rowell, while emphatically supporting the validity of the Ontario law and maintaining the right of the Ontario Legislature to control the schools of the province, expressed the opinion that it might be well to have an independent commission appointed to inquire into the trouble. The Ontario Government have declined to take that step.

Such a commission as was suggested by Mr. Rowell might perhaps obtain information as to the present condition of the so-called bilingual schools which would be helpful. But the question has now got beyond the point at which any settlement could be effected by legal proceedings or by formal action of any kind. Nor can it be settled now by Parliamentary discussion, either at Toronto or Ottawa. So long as either party is disposed to insist on what it believes to be its legal rights, little or nothing can be done. The judgment of the Judicial Committee of the Privy Council, when obtained, on the appeal that is to be taken from the decisions of the Ontario courts, may settle the law of the question. Privy Council judgments sometimes settle but little, and leave material points undecided. But even if in this instance a clear cut judgment be obtained, it will settle the law only. The conflict between the champions of the two languages will remain. It may even be intensified by the judgment.

What is most needed is the meeting of half a dozen leading men of moderate views on each side, who will be animated by a sincere desire to find a solution which, while recognizing the proper authority of the Ontario Legislature, will give as much consideration as is reasonably possible to the natural desire of French speaking parents to have their children taught their mother tongue. If the question be approached by

the right men in the right spirit, we are satisfied that there will be no difficulty in arranging for a reasonable percentage of French instruction, combined with such instruction in English as is admittedly necessary to the children's success in the battle of life, in a country in which English is the language of the majority. There must be on the two sides of the quarrel moderate men animated by such a desire. He who can bring such men together for friendly conference will do an important service to the country.

Wilson and Roosevelt

THE prospect increases daily that Woodrow Wilson and Theodore Roosevelt will be the two gladiators for the Presidential battle in the United States in November. As to President Wilson, there is no question. He has no rival in the Democratic party. There is a general realization among Democrats that if he cannot win there is nobody who can. Mr. Roosevelt is by no means without opponents in the Republican party. Indeed, most of the old line Republicans look with suspicion, if not with distinct hostility, upon the man who, by leading the Progressive bolt in 1912, destroyed whatever hope of success the Republicans had. They would like to nominate another candidate if they could find a probable winner. They would gladly take Justice Hughes, of the Supreme Court, if he would authorize the use of his name. There is a revival of the movement to nominate Mr. Root, but it is not likely to make much progress. There is no other candidate who looms up largely. A little while ago it seemed that all that the old line Republicans need do was to select a candidate who was not particularly obnoxious to Mr. Roosevelt. The idea then was that Roosevelt would recognize his own inability to win and would be content to exercise something like a veto power on the Republican nomination. Now the indications are that a concession of that kind to Mr. Roosevelt will not be enough for his purpose. It begins to be clear that the only candidate who would not meet Roosevelt hostility is the Colonel himself. The old liners are awakening to the fact that unless they accept Roosevelt there can be no Republican unity, and that without such unity there can be no hope of success in a contest against President Wilson. Reluctantly many of the old guard are accepting this situation and coming out for Roosevelt. The recent declaration of the New York Tribune, the staunchest of Republican papers, in favor of Roosevelt, is significant. There will still be much reluctance to accept Roosevelt, and occasionally an effort to boom some other candidate. But the outlook now is that his nomination will be accepted as the only salvation of the Republican party, and that he and Mr. Wilson will fight the November battle. An interesting fight it will be.

The Kingston British Whig has just issued what it calls a "Prosperity Edition" which should be a good advertisement for the limestone city. The number contains fifty-six pages, in which things Kingstonian are set forth in an attractive manner, with the aid of many illustrations. The business side of Kingston's life of course receives prominence, and the number contains a large amount of interesting information concerning the important educational institutions of the city—Queen's University and the Royal Military College. The number is most creditable to the enterprise of the old Whig establishment. As a piece of newspaper work it would reflect credit on a larger city.

How the New Taxes Affect the Treasury's Position

According to the Writer, Estimate of Total Borrowing Requirements May Be Reduced, Revenue May Be Changed Considerably.

By H. M. P. ECKARDT.

Taking the unrevised figures as published in the Canada Gazette, the total revenue of the Dominion Government for the fiscal year ended March 31st, 1916, was \$171,248,668—the expenditure on ordinary account being \$107,730,367, and that on war and capital account being \$168,800,151. It is to be remembered that the entries in suspense belonging to the fiscal year just ended will, when passed through the books, serve to materially swell the figures of the expenditure accounts. In his budget speech, Sir Thomas White estimated that, when all entries were in, the expenditure on capital account would be \$40,000,000, and that on ordinary account \$125,000,000. The war expenditure as at March 31st, 1916, stood at \$134,650,000; and possibly the closing entries yet to go through will bring the total to \$145,000,000, or perhaps more. To be on the safe side let us put it at \$150,000,000.

Revenue from Taxation and Borrowing.

That the revenue will be several million dollars in excess of the \$170,000,000 estimated by the Finance Minister is indicated by the Department's statement just published. The closing entries yet to go through will probably bring the total close to the \$175,000,000 mark. Taking it at that, we get the following result. Canada's total outgo—ordinary, capital, and war—in the last fiscal year amounted to \$315,000,000. Of this amount \$175,000,000 were procured through taxation, direct and indirect, leaving \$140,000,000 to be borrowed. In other words, taxation provided 55½ per cent of the amount required, and borrowings accounted for 44½ per cent. That is a satisfactory showing, and the knowledge that the Government is taxing freely to meet the rising expenditure counts importantly in sustaining Canadian credit in the American market.

On examining the financial statement of the Department as at March 31st, 1916, and March 31st, 1915, it will be seen that during the year the funded debt payable in Canada increased \$90,000,000; the funded debt payable in England increased \$28,000,000; and the temporary loans, \$106,000,000. This makes a total of \$224,000,000 new borrowings, or \$84,000,000 more than the amount shown above as required for our own operations. This is accounted for, in part, by the loans to England in connection with the munition contracts, and also by the fact that our Government, at the end of the fiscal year, had funds in hand, proceeds of recent loans available for expenditures to be made in the fiscal year 1916-1917. For the money which the Dominion Government borrows for the purpose of lending to the British Government, we receive gilt-edged assets which can be converted in due course. Actually the same applies to certain of the capital expenditures, but for present purposes the latter will be ignored, as some of the property or assets so acquired have merely a problematical value.

The Increased Customs Duties.

The customs revenue in March, 1916, gave us indication of a falling off. Total customs receipts for the month were \$9,978,000—a higher figure than for any month subsequent to May, 1913. From the standpoint of the national treasury it is a matter of considerable consequence that the customs revenue continue to show up with satisfactory increases. Sir Thomas White stated, on February 15th, that of the \$82,000,000 customs receipts up to February 10th, about \$19,000,000 represented the new increased duties. On that basis the revenue consisted of about 77 per cent collected under the old duties, and 23 per cent under the new duties. Applying this ratio to the total collections for the fiscal year the customs revenue for the year if duties had not been raised would have been about \$75,000,000, instead of the \$98,000,000 actually shown. However, this statement should be qualified, as probably the increase of 7½ per cent in the general tariff would cause a reduction in the duties collected on certain items which could not be imported at a profit under the higher rate.

Capital, War and Ordinary Expenditure.

In round figures the Minister placed the estimat-

ed total outgo for 1916-1917 at \$415,000,000—an increase of \$100,000,000 as compared with the year just closed. The increase is practically all accounted for by the growing expenditure on the war. The items making up the aggregate are:

| | 1916-17. | 1915-16. |
|----------------------------|---------------|---------------|
| Ordinary Account | \$135,000,000 | \$125,000,000 |
| Capital | 30,000,000 | 40,000,000 |
| War | 250,000,000 | 150,000,000 |
| | <hr/> | <hr/> |
| | \$415,000,000 | \$315,000,000 |

There are so many uncertainties in connection with the revenue as to make it difficult to estimate with any confidence. However, the Minister, for the sake of getting a basis, estimated the revenue at \$170,000,000, the same as last year. This would leave \$245,000,000 to be borrowed—as he explained it \$30,000,000 to be borrowed for the capital expenditures, if necessary, and \$215,000,000 for war. This brings down the percentage of our outgo raised by way of taxation from 55½ to 41; while the percentage borrowed rises from 44½ to 59. It is quite possible that when the actual figures are in, it will be found that the total revenue for 1916-1917 will amount to considerably more than \$170,000,000. In fact, to place the total revenue at that figure is to imply that there will be a decrease of from \$20,000,000 to \$30,000,000 in the revenues for the current year, apart from the new tax on excess profits. It has been estimated that this new tax may bring in something like \$25,000,000; if it does so, and the total revenue for the year (including this) is only \$170,000,000, that would mean a shrinkage of \$25,000,000 in the other revenue. No doubt the Finance Minister feels obliged to estimate very conservatively, and we all agree that it is his duty to do so; but at the same time we may permit ourselves to hope that the customs and other ordinary revenue will run this year on about the same level as in 1915-1916, or perhaps a little higher. As justifying these hopes or expectations one might mention that customs collections for February, 1916, were \$8,979,000, as against \$6,805,000 in 1915; and March, 1916, \$9,978,000, as against \$7,066,000 in 1915. Also the collections in April, May, June and July last year were comparatively small—viz.: April and May, \$13,288,000; June \$6,938,000; July, \$7,240,000. Considering the way the customs revenue is running at present, those figures do not look hard to beat. Unless there is an unexpected slump during the spring and summer, the collections during the first half of the new fiscal year may outrun the record for last year. If events develop in this way the collections under the new tax on excess profits will be all to the good—that is to say, every million dollars thus collected will represent a million struck off the \$245,000,000 which the Minister estimated that he would require to borrow. So, \$25,000,000 collected from the excess profits would bring the borrowing requirement down to \$220,000,000; and continued buoyancy in the ordinary revenue might possibly effect a further reduction—to \$200,000,000.

CLOTHES AND THE MAN.

There is a doorman downtown who is patronized by \$15-a-week clerks in his institution, and yet when he goes home he is met at the station by a twelve-cylinder car, and on pleasant Sundays he drives a costly power boat. And nearby is a waiter who gratefully acknowledges a ten-cent tip, which he drops into a waistcoat pocket that bulges out because it holds two diamond rings worth close to \$1,000. When the waiter doffs his white coat he puts on his rings, and he, too, is often met by a member of his family in a comfortable motor car. There is no moral to the tale, unless it be that clothes do not make the man, until he puts them on. — New York Annalist.

In exports of manufactured articles, the United States now leads all the world. The total for the year 1915 was \$1,784,000,000, while Great Britain exported only \$1,500,000,000.

OUR RECRUITS.

In the Ontario Legislature a few days ago Mr. N. W. Rowell furnished interesting particulars regarding the Canadian troops, showing ages in five classes and also occupations. The returns were up to February 29, 1916, the total force then being 263,111.

Regarding the ages, the figures were:

| Age. | Total | Per-centage |
|--------------------|---------|-------------|
| Under 20 | 26,260 | 10.03 |
| 20-25 | 95,755 | 36.50 |
| 25-30 | 66,144 | 25.23 |
| 30-35 | 42,371 | 15.81 |
| 35-40 | 22,128 | 8.45 |
| 40-45 | 9,228 | 3.51 |
| Over 45 | 1,225 | .47 |
| | <hr/> | <hr/> |
| | 263,111 | 100 |

Their Occupations.

| Occupations. | Total | Per-centage. |
|-----------------------------------|---------|--------------|
| Professions | 16,153 | 6.14 |
| Employers and Merchants | 6,530 | 2.48 |
| Clerical workers | 48,777 | 18.48 |
| Manual workers | 170,369 | 64.77 |
| Farmers | 14,200 | 5.40 |
| Ranchers | 2,844 | 1.08 |
| Students | 4,238 | 1.65 |
| | <hr/> | <hr/> |
| | 263,111 | 100 |

He said his information was that there are about 450 munition plants throughout Canada, and approximately 275,000 people are engaged in the work; 180 factories are machining and assembling shells, and the rest making component parts. They are commencing to manufacture fuses, which will open up a field for a good deal of female labor. There are a good number of small articles being made in which women can be just as, if not more, efficient than men.

THE DEMANDS OF THE TIME.

The man who produces one pound of anything of value, the man who improves the breed of his own cattle, the man who makes two blades of good grass grow where one grew before, is adding to the wealth of the nation, to the richness of the country. Not alone is that the case, but he is contributing his bit to Christianity and to the welfare of the world. It is given to the farmer and breeder to serve his native land more by his individual effort than is within the power of the ordinary follower of any other occupation. The farmer by his own unaided efforts, except by the gifts of nature, can maintain his wife and family. No other worker in the world's vineyard can say as much unless he is willing to go naked and that he and his should often times suffer the pangs of hunger. And the claims upon the farmer and his fellow, the breeder, in present circumstances are not only urgent but many.

There are people who object to the assertion that the agriculturist in making the earth yield its utmost, in tending his flocks and herds with care, diligence and intelligence, is doing his bit, the same as the man in the trenches. He is not directly placing his own life in jeopardy perhaps, but he is helping to sustain those who are. He is providing a good-sized portion of the ammunition. The fault is not in the assertion itself, but in the use that is made of it by the man who has no spirit for the fight and who, the probabilities are, is doing his full bit neither in agriculture nor in any other form of industry. There are possibly men on the land who would be more use on the field of battle, but one thing is certain, if the men who are of value to the soil and to the farmyard are taken away some means must be found to replace them.

Canada's future lies in the womb of her agriculture. To make the best use of the opportunities that are and will be, to take our rightful place in the world's economics, we must toil without ceasing, we must produce and improve, we must bend all our energies to results, we must utilize waste and, amidst it all, we must focus our eyes upon the future and pay our respects to conservation. Our position is unique in nearness to, and in our facilities for reaching, the best markets. Transportation just now may be difficult and expensive, but it will not always be so, and when the time comes for greater freedom of trade we must be prepared for it. This can be done not alone by industry, but also by economizing; not by hoarding, but by the judicious use of our resources. A truth ever to be borne in mind is that what is wasted by fools is turned into profit by the wise. Even in the midst of its campaign of destruction and ferocity, Germany, so word is flashed across the sea, is devoting attention to education and internal improvement and development.

The Beet Sugar Industry

(The Fourth of a Series of Articles on the Sugar Question.)

(Specially Contributed)

The cultivation and manufacture of beet sugar is a comparatively recent industry, dating back to the beginning of the last century, although the original discovery was made in 1747, when Marggraff tested the wild beets of southern Germany and Italy, and found them to contain from 2 to 4 per cent of saccharine matter. From this beginning Marggraff increased the sugar content by means of proper selection and cultivation, and at the beginning of the nineteenth century the yield of beet sugar was as high as 10 per cent.

In 1803, after a temporary lull in hostilities, England again declared war on France. One of the minor effects of the war was that France was unable to import sugar from her colonies. Napoleon saw the necessity of home production, and therefore induced the French Government to pay large premiums to the farmers and manufacturers in order to develop the beet sugar industry.

In Canada the cultivation of sugar beets and the production of beet sugar is of recent origin, no real progress having been made until the present decade. Several attempts were made to establish refineries between 1881 and 1891, but in spite of every effort they resulted in failure. Promoters and experts were brought over from France and Germany, elaborate prospectuses were sent forth, Government subsidies were voted and paid, capital was subscribed, contracts were made with farmers in the Eastern Townships of Quebec, for growing beets, and factories were built at Coaticook, Berthier and Farnham. For various reasons each of these in turn was closed down before any real test had been obtained, as to the possibility of raising beets at a profit either to the farmer or the refiner.

Under the circumstances it is necessary to regard the establishment of four factories in Ontario, as the actual beginning of the industry in Canada. Of the four factories that of the Dominion Sugar Company is the sole survivor, being an amalgamation of the Wallaceburg Company, the only successful one, and the Berlin Company. The latter having failed was bought from the court by the Wallaceburg Company. A third factory at Warton was closed after two seasons of work, while another attempt at Dresden was similarly given up. The latter was the darling project of an American millionaire who quarrelled over his charter after he had built his factory instead of beforehand. Deciding the Uncle Sam was good enough for him, he picked up his factory bodily and carted it over the imaginary line we call the 49th parallel. Then he pieced it together again in Michigan. They say that, like the prophets of old who shook the dust from off their feet, he even swept up the sugar from the ground.

In Raymond, Alberta, the Knight Sugar Refining Company was organized by the Mormons in 1902, the promoters being Jesse Knight of Provo, Utah, and John D. Taylor, of Salt Lake City. This had been carried on as part of a large farming enterprise with a million dollar capitalization, but has discontinued business during 1915. In Vancouver the British Columbia Sugar Refining Company has been operating successfully for a number of years.

Government Assistance.

In 1901 the Legislature of Ontario set apart \$225,000 as a special fund to be paid out of the consolidated revenue of the province to encourage the growing of sugar beets and the establishment of refineries. For the first three years the subsidy paid was at about the rate of 50 cents per 100 lbs., and the yearly sum expended by the Government ran from \$70,000 to \$75,000. In 1906 and 1907 the rate was reduced to about 37½ cents per 100 lbs., but although the factories became fewer in number, the amount paid annually in subsidies remained about the same for the output of the two surviving companies, in Berlin and Wallaceburg. As, however, the sum expended far exceeded the original estimates an additional \$150,000 was voted for the purpose. As the business gradually developed, the subsidy was finally abandoned.

The Farmers' Point of View.

The chief difficulty in connection with sugar beet raising is largely a question of farm labor, but on the whole, the farmers appear now to be making a fair profit upon their work. Much depends on the soil, a pliable clay loam, or sandy loam, such as is found in many parts of Ontario, and in the irrigated prairies of Southern Alberta, being specially

adapted to beet cultivation. A farmer with three or four boys and girls from eight to sixteen years of age, may cultivate a crop of four or five acres without hired help. But when he puts a large acreage into beets and then searches for cheap labor he finds that to be one of the things lacking in Canada, just as it is conversely abundant in such countries as Germany or France.

The refiners usually contract with the farmer for the output of a given number of acres at a price per ton of beet. Ten tons of roots per acre on farm, and 15% of sugar in factory are regarded as good results, and these are not far from the averages in Ontario. On the well tilled farms of Utah, however, the production under intensive and irrigation cultivation runs from 20 to 30 tons. The money value of a crop yielding fifteen tons per acre ranges from \$50.00 to \$75.00 according to the recent estimates of an Alberta farmer, the whole cost of ploughing, seeding, thinning, cultivating, lifting and carting to the factory is \$25.00 per acre. The Dominion Sugar Co. are at present erecting a third plant at Chatham. As their Wallaceburg and Berlin plants have reached at their maximum output, it was necessary to build another factory.

The local beet crop is brought to the factory at the end of September and beginning of October, and is refined during the three following months. As a result, the beet refineries are left without occupation for three-quarters of the year. During that time raw cane sugar is imported in order to keep the machinery in operation.

Before the war, in addition to the cane sugar from the West Indies, raw sugar was imported from the United Kingdom, Austria-Hungary and Belgium. In 1908, 22,056,516 lbs. of raw sugar were imported from these countries, valued at \$491,463. Prior to 1903 considerable raw and refined beet sugar was imported into Canada from Germany, but with the surtax on Germany imports that came into effect early in that year, the importations decreased from \$3,411,811 to zero. At the outbreak of war, all importation of raw beet sugar ceased, cultivation in France and Belgium having been abandoned, and Austrian products being debarred by Government enactment.

World's Beet Sugar Statistics.

The steady growth of the world's beet industry during the year 1869 to 1908 is shown in the following figures:

| Year. | Tons. |
|---------------------|-----------|
| 1869-70 | 878,000 |
| 1879-80 | 1,720,000 |
| 1889-90 | 3,657,000 |
| 1899-1900 | 5,450,000 |
| 1907-08 | 8,100,000 |

No struggle for supremacy is more interesting than that which took place between the cane and beet sugar industries. In 1807 the production of beet sugar was less than half that of cane sugar, but in the decade 1870-1880 the production of both sugars was about the same. For the 26 years following, the beet sugar industry forged ahead of cane sugar in production, which was due to the activity of European scientists. In 1907 cane sugar gained the ascendancy in production but lost it again in 1908. Since that time the production of cane sugar has been far ahead of beet sugar and in 1914 there was a difference of about 1,000,000 tons.

The following table shows the increase from 1891 to 1906 in various countries:

| Countries. | Production of Sugar Beet in Tons. | | | |
|-------------------------|-----------------------------------|-----------|---------------|---------|
| | 1891. | 1902. | 1906. | 1915. |
| Austria | | 1,050,686 | 9,862,900 | ..... |
| France | 719,071 | 1,034,815 | 2,010,308 | ..... |
| Belgium | | 198,894 | 2,037,298 | ..... |
| Germany | 1,341,752 | 2,283,368 | 15,617,544 | ..... |
| Holland | | 118,619 | 1,321,298 | ..... |
| Russia | | 1,143,467 | 11,390,272 | ..... |
| United States | 5,998 | 159,809 | 299,384 | 779,756 |
| Canada | | | (1907. 13,029 | 18,419 |

Recent figures show the sugar beet crops in Canada and their value during the past two years:

| | 1914. | 1915. | Diff. bet. Average of | |
|-----------------------------------|-------------|-------------|-----------------------|------------------|
| | | | 1914 and 15 | 5 years 1915-14. |
| Acreage under beets | 12,100 ac. | 18,000 ac. | 149 | 17,000 ac. |
| Average yields per acre | 8.98 tons. | 7.83 tons. | 87 | 9.65 tons. |
| Total yield | 108,699 bu. | 141,000 bu. | 121 | 164,000 bu. |
| Average price per bu. | \$5.99 | \$5.50 | | \$5.86 bu. |
| Trade value | \$3,095,600 | \$3,402,600 | | \$2,632,000 |

Up to the time of the Brussels Convention in 1902, beet sugar cultivation and refining were encouraged in European countries by Government bounties, ranging from \$5.00 to \$10.00 or even higher per ton. The object of the Brussels Convention was to equalize the conditions of competition between beet and cane sugars from different sources, and to promote the development and consumption of sugar. With these objects in view, it was decided to suppress all bounties and to limit the surtaxes in importing countries. Between the years 1902-1906, 1903 being the year of the convention, and for four years later, the increases in the European countries were as follows:

| | Increases. |
|----------------------------------|----------------|
| Area under cultivation | 183,514 acres |
| Sugar beets raised | 7,316,914 tons |
| Sugar produced | 429,947 tons |

Possible Scope of Beet Sugar Production in Canada.

In 1907-08 the total quantity of imported and home produced sugar was 493,565,115 lbs. of which 5.28 per cent was beet sugar actually grown in Canada. Since then these totals have increased considerably both in imports and home products, the ratio of the beet to the cane remaining about the same. There is no good reason why the beet sugar industry should not be developed extensively and greatly to the advantage of the Dominion as a whole. Not only does the money expended in the cultivation and refining stay in the country from beginning to end, but the by-product so helpful to mixed farming, also remains in the country. We import practically no lumber, or flour, or cheese, our forests, wheatfields, and herds of milk cows being sufficient for these products. The refiners tell us that we possess the soil and climate for maturing the best quality of sugar beets, while farmers are agreed that no other crop pays so well as sugar beets. Notwithstanding these facts, we import 90 per cent of all the raw sugar refined in Canada.

As to the quality of beet sugar vs. cane sugar, there is only one answer, that will show that there is no difference between a good quality beet sugar and a good quality cane sugar. There is no difference of taste or odor, or from any other physical, chemical or technical standpoint, between the two kinds of sugar. The discussion of this standpoint in 1907 led the Agricultural Experimental Station of the University of California to a very interesting experiment. About 2,000 cans containing different kinds of fruit were preserved, half of them with refined cane sugar and half with beet sugar. After being stored in a rather unfavorable location for two years the cans were opened. Seven of the cans from the cane sugar lot and six of the cans from the beet sugar lot were spoiled, in all probability due to imperfect sealing. The quality of the fruit in the remaining cans was perfect; not the slightest difference could be noticed in the fruit as well as in the preserving syrup.

The difficulty of obtaining beet seed since the war has made this a very important factor. Not only has the market value of the present price it is almost impossible to secure it. Prior to the war practically all seed was brought from Germany, and since then only one ship load has been procured by the United States from Holland, of which Canada has had her share. These unusual conditions have resulted in increased activity in beet seed cultivation, both by the Mormons in Utah and the Dominion Sugar Co. in Ontario, with quite a fair measure of success in both cases.

Many people consider that sugar is as much a natural product of this country as are timber, flour, butter and cheese. Statistics of the industry show that in other countries great strides have been made in the economic production of beet sugar. It is claimed that similar expansions should certainly take place in Canada.

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Mentioned in Despatches

Sir Roger Casement, the Irish agitator, and pro-German advocate, has just been arrested in Berlin. Ever since the outbreak of war Casement has been most violent in his attacks on Great Britain, but as he made these from Berlin he thought himself safe from any kind of justice. The Germans apparently doubt his sincerity for they have arrested him and put him in gaol, where the British people generally wish he would remain for all time. Casement was born in 1864 and for a number of years acted as British Consul in various outlying portions of the Empire.

George W. Peck.—The author of "Peck's Bad Boy" is no more. George W. Peck, although twice Governor of Wisconsin, and a big man in politics in the United States, will always be known as the author of "Peck's Bad Boy." Peck was born in New York State in 1840, and as a young man served through the Civil War. At the end of the war he went to Wisconsin and entered journalism, editing a number of small papers in that state until he finally established Peck's Sun in Milwaukee, which became noted for its humorous sketches. Later Peck compiled these sketches to a series of books the best known of which was "Peck's Bad Boy." He was a former mayor of Milwaukee and was twice Governor of the State of Wisconsin.

The Hon. J. R. Stratton, whose death has just occurred at Hot Springs, was for many years one of the outstanding political men in the Province of Ontario. He was born at Mill Brook in 1857, but spent practically his entire life in Peterboro, where he was editor and publisher of the Peterboro Examiner, and also represented the city and county in the Ontario Legislature. He was first elected to the Legislature in 1886 and for several years held the position of Provincial Secretary. Some years after the defeat of the Ross Government he entered Federal politics, but was defeated in 1911 and retired from public life. Mr. Stratton was also connected with a number of financial and industrial corporations, but was best known through his political associations.

Sir Sam Hughes.—Canada's War Minister. Sir Sam Hughes, is probably the most talked of man in the country at the present time. Sir Sam has been very much in the limelight ever since the outbreak of hostilities as he is a warrior by nature and training. Sir Sam was born at Darlington, Ont., sixty-two years ago and was educated at the Toronto Normal School. As a young man he taught school where it is presumed he wielded the birch rod with telling effect. He then engaged in another kind of warfare from behind an editor's desk at Lindsay, keeping in the pink of condition by playing lacrosse and other outdoor games. The doughty warrior then took part in the Fenian Raid of 1870 and got an additional baptism of fire in the South African War. Sir Sam was first elected to the House of Commons in 1892 and has been "on the job" ever since, being made Minister of Militia and Defence by Sir Robert Borden in October, 1911. The Minister of Militia is an ardent Imperialist.

Lord Brassey.—Stories are now being told about the father of Lord Brassey, who himself came into the limelight owing to his decision to give up his yacht, "Sunbeam," and quit cruising around the world. The late Thomas Brassey, who started life as a navy or laborer, and died a multi-millionaire railroad contractor, furnishes one of the most romantic tales in the history of British industrial life. Old Tom Brassey, as he was known to everybody, was absolutely without side or affectation, despite the fact that he rose from the ranks and accumulated a vast fortune. He used to tell with a great deal of delight about how he first met his wife, then a barefoot girl selling matches in the streets of Liverpool. At that time he was a poor boy, sick, unable to find work, and on the verge of starvation, when his future wife, touched by his misery, bought him a meal with the few pennies she was able to save from her match selling. The acquaintanceship thus formed ripened into friendship and eventually into love, and Brassey afterwards married the little barefoot girl who had befriended him in his hour of need. The couple retained their simplicity to the end despite the fact that they were the possessors of millions.

John Hays Hammond, Jr., promises to be as famous in his way as his father, who is one of the world's best known mining men. Young Hammond is an inventor and has just sold to the United States Government an invention for the wireless control of torpedoes. This invention, it is said, will revolutionize submarine warfare and make a navy possessing this secret immune from attack. Hammond, junior, was born in California in 1888 and educated at Yale. The United States Government paid him \$750,000 for his radio torpedo.

Robert Gray.—A case of true heroism comes from the United States. A young American named Robert Gray has just made the supreme sacrifice, giving his life in a truly unselfish manner. The young soldier was on duty in the trenches when wounded men from the firing line were being carried through them to the field hospital in the rear. The trenches were so narrow that there was not room enough for the stretcher bearers to pass, and the officer in command called for volunteers to stand out and make room. Young Gray was the first man to volunteer, stepping out on a parapet only to be shot down. Previous to this he had made an enviable reputation for himself as a fearless, conscientious soldier.

Lieut. P. L. Browne, who was mentioned by the Official Eye-witness as a result of the work he performed at St. Eloi, comes of a fighting family. Young Browne, who is a native Montrealeur, although only twenty-one years of age, was an officer in a rural battalion before going overseas with the 22nd French Canadian Battalion. His father lives in Montreal and age alone prevents him from joining his son at the front. The family, however, is well represented. An uncle of the young man is in command of troops in Calcutta; another uncle is an officer somewhere at the front; a cousin was wounded a short time ago in France. The young man's grandfather was an army veteran.

The Hon. Josiah Wood, Lieutenant-Governor of New Brunswick, recently celebrated his seventy-third birthday. The Lieutenant-Governor was born at Sackville, N.B., on April 18th, 1843, and educated at Mount Allison University. He was called to the Bar in 1866, but shortly afterwards withdrew from the practice of law and joined his father's business, which included ship building, farming and stock-raising. He represented Westmorland for several years in Parliament, later occupying a place in the Dominion Senate, from which he resigned in 1912 to take his present position. He is a director of the Record Foundry Company and the Eastern Trust Company, and a member of the Board of Regents of Mount Allison University.

Mr. A. Bramley Moore.—The death of Mr. A. Bramley Moore, of the Princess Patricia's and a former member of the Alberta Legislature, calls fresh attention to the fine type of men going overseas. Mr. Moore was formerly member of the Provincial Legislature for Lloydminster, but did his most effective work as a member of the commission which investigated relief problems in the United States and Europe. He specialized on the subject of agricultural credits, was the author of several books and many pamphlets and was generally regarded as one of the keenest and most wide awake men in the West. The Alberta Legislature by a standing vote passed a resolution of condolence to his widow and children.

The Right Reverend William George Peel, Bishop of Mombasa, Africa, is dead. In itself this announcement may not be of very much interest, except to the individual in question and his friends, but to the world it marks the passing of a man who was courageous enough to defy the customs and practices of the Church of England. Some years ago the Bishop of Mombasa and other Church of England missionaries in East Africa committed the heinous offence of taking communion with Non-conformists. For this they were brought to trial on the charge of heresy, some of the more narrow-minded Church of England officials holding it to be a serious offence for a few Church of England missionaries away out in Africa to have any friendly relations with other missionaries. To the credit of the Anglican Church the Bishop of Mombasa was found not guilty. Bishop Peel was a son of a captain in the British Army and was born in India sixty-three years ago, and educated in London, but spent most of his life in mission fields in Africa.

Dr. Alfred Thompson, M.P. for the Yukon, has just been gazetted a lieutenant-colonel and has been assigned for duty to the Military Hospital Committee which has charge of all the soldiers' convalescent homes and hospitals in Canada. Dr. Thompson was born in Hants County, N.S., in 1869, and educated at Dalhousie. He went to the Klondike in the gold rush of 1899 and was elected to the House of Commons for Yukon in 1904 and again in 1911. He is regarded as an authority on the far North.

"Big Jim" McDermott, as he was known to the New York financial world, has just died. McDermott was the doorman for the Morgans, and visitors anxious to see the New York Croesus had to satisfy McDermott that they were all right before he let them pass. In the ten years in which he was with the Morgan firm he has shaken hands with practically all the wealthy men in the nation, never asked for a tip on the market, and so far as was known, was never offered one. He was in the New York financial district but never of it.

Mr. Alexander Maclaren, of Buckingham, Que., has been elected a director of the Bank of Ottawa, succeeding the late David Maclaren. The new director is vice-president of the James Maclaren Company, Ltd., and president of the North Pacific Lumber Company, of Barnham, B.C. Mr. Maclaren was educated at the School of Science, Toronto, and then entered his father's lumber firm, with which he has since remained. He is known all over the continent as a breeder of high class trotting horses and as a yachtsman.

Count Von Haesler, who is now said to have charge of the German operations before Verdun, is over eighty years of age. He was living in retirement, but when the Crown Prince found it too hard to get through at Verdun he looked around for help and chose the old veteran as the man best qualified to help him get through. This is Von Haesler's fourth great war. As a young man he fought in the war of 1864, then in the campaigns of 1866 and 1870. He is a typical Spartan, living an extremely simple life and refusing to touch alcohol or tobacco. Here's hoping he meets his Waterloo at Verdun!

Mr. H. B. Mackenzie, general manager of the Bank of British North America whose annual report has just been made public, succeeded to the general managership on the 1st of December, 1912, following the resignation of Mr. H. Stikeman. Mr. Mackenzie was born at Ingersoll, Ont., in 1867 and as a boy in his teens joined the Bank of Commerce. Three years later he transferred to the Bank of British North America, with which he has remained ever since, seeing service at London, Victoria, Winnipeg and Montreal. As his name indicates Mr. Mackenzie is of Scottish extraction and possesses all that nation's traditional leanings towards financial matters.

Mr. Henry Birks, who gave \$10,000 to the Overseas Army Work of the Young Men's Christian Association, is one of the outstanding philanthropists of the country as well as being one of the nations' great merchant princes. Mr. Birks was born in the city of Montreal over seventy-five years ago, and in the half century in which he has been in business for himself has built up the biggest jewellery business in Canada. Mr. Birks has never sought civic or political honors, but is ready with purse and by personal service to aid every worthy cause, national, civic, religious, educational or philanthropic. In Y. M. C. A. and church work he is probably the largest individual giver in the Dominion.

Marquis Garroni.—Many diplomatic heads are being lopped off as a result of the present war. The latest ambassador to be dismissed is Senator the Marquis Garroni, Italian Ambassador to Turkey. The cause of his disgrace is attributed to the fact that he knew all the intrigues of Germany and Austria and that he failed to notify his sovereign or his government of what was taking place. It now transpires that he was told by the German and Austrian ambassadors at Constantinople of the proposed note to Serbia some eight days before it was actually forwarded. The only explanation the dismissed ambassador can give is that he was on terms of intimacy with the German and Austrian ambassadors and that as his country was at that time a member of the Triple Alliance he had no other thought than that his own country knew all about the proceedings and would act with Germany and Austria in the coercion of Serbia. His dismissal was caused by Baron Sonnino, Italian Minister of Foreign Affairs.

AMONG THE COMPANIES

NEW YORK CENTRAL.

New York Central's annual report for 1915 gives the surplus after deducting fixed charges, but before deducting advances to controlled companies, reserve against depreciation, discounts and expenses of security issues and similar items, as \$27,711,473, equal to 11.10 per cent on \$249,590,460 stock. This compares with \$9,358,247 for the consolidated properties in 1914, or 3.75 per cent on the same amount of stock.

The \$16,200,000 new stock recently sold out of the treasury of a subsidiary company was previously treated in the company's accounts as outstanding, the dividends returning as part of "other income." This transaction took place after the end of the year 1915, and does not appear in this report.

Only three quarterly dividends were charged against the income account of 1914 for the old New York Central. The fourth dividend was declared after consolidation and appears in the profit and loss account for 1915. Thus the company avoided throwing a deficit after dividends in the poor year 1914, although quarterly dividends were paid continuously.

As of Dec. 31, 1915, the Central had \$33,809,983 cash on hand. Current assets, other than material and supplies, exceeded current liabilities, including \$22,019,954 loans and bills payable, by \$12,836,661. The loans and bills payable have since been reduced to \$15,000,000.

FAIRBANKS-MORSE COMPANY.

Fairbanks, Morse and Co., the parent concern of the Canadian Fairbanks-Morse, Ltd., has recently increased its authorized capital stock from \$1,000,000 to \$4,000,000, making \$2,000,000 6 per cent preferred stock and \$2,000,000 common. The new stock is to be used in connection with the acquisition of E. and T. Fairbanks and Co., of St. Johnsbury, Vt., for which company the Chicago concern has been western selling agent. There will be no public offering of the stock.

The shareholders of E. and T. Fairbanks and Co. have approved the proposal to exchange their stock for that of the Chicago company, and the transfer was effected on the basis of one share of the Vermont company's \$2,500,000 outstanding (par \$500) stock for three shares of \$100 each of the newly authorized 6 per cent preferred stock of the Chicago company, which by considering the new preferred at par, equals \$300 per share for the old stock.

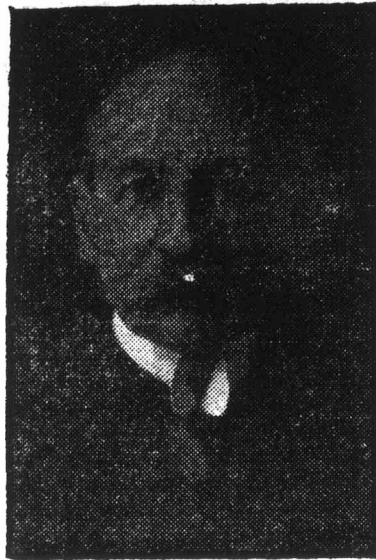
CROW'S NEST PASS COAL CO.

In the statement of Crow's Nest Pass Coal Co., recently sent to shareholders, there is this year absent the item of bills payable and instead of a nominal amount of cash on hand the figure this year is \$245,264. The net profits, equal to about seven per cent in the capital, are \$429,553. In other respects the balance sheet does not present any material changes. It will be remembered that the large balance at the credit of profit and loss a year ago was over a million dollars. Practically the whole of this has been written off against depletion of mines and old accounts, however, \$100,000 has been transferred to a contingent liability reserve, of which \$50,000 has been invested in Anglo-French bonds and \$50,000 remained at the end of the year in the bank for investment.

CANADIAN LOCOMOTIVE CO.

In a recent interview Mr. Aemilius Jarvis, President of the Canadian Locomotive Company, said:

"Any influence that would move the market for the stock now might just as well have done so several months ago. The company has orders on hand that will keep the plant working at capacity for at least a year, and the outlook for new orders is particularly bright. We are now turning out fifteen new locomotives a month; this in addition to our own work on munitions. The one difficulty we are experiencing at the present time is that of securing materials. These are very scarce, with consequent high prices obtaining."



MR. C. J. McCUAIG,
Director Sawyer-Massey Co.

CANADA FOUNDRIES & FORGINGS, LTD.

As predicted a week ago, the stock of the Canada Foundries and Forgings, Ltd., was put on a regular dividend basis. An interim dividend of 10 per cent was paid out of last year's earnings a short time ago, and the new rate created is 3 per cent quarterly, placing the stock on a regular 12 per cent basis.

In addition there has been voted a bonus of 3 per cent and while the directors do not specifically indicate that this is to be considered a regular thing, the Street so construes it in view of the recent performance of the stock and the well known ability of the company to continue a distribution of that size out of current earnings.

If the bonus is to be maintained pro rata through the year, and this is the least that is apparently expected, shareholders will receive 21 per cent in dividends and bonuses for the twelve months.

The fact that the initial regular dividend was declared for a broken period of four months had in view the bringing together of the dividend periods for common and preferred. The last preferred dividend was declared for three months ended January 31st last; another was declared for the three months to April 30th. Both the 1 3/4 per cent on the preferred and the 7 per cent on the common will be paid May 15th to stock of record April 30th.

The company earned approximately 80 per cent on its common stock last year.

PORTO RICO EARNINGS.

Net earnings of Porto Rico Railways for March show an increase of 29.4 per cent. The three months' increase is 16.5 per cent March and three months' figures follow:

| | 1915. | 1916. | Increase |
|-------------------|-----------|-----------|----------|
| Gross | \$68,593 | \$76,491 | \$7,897 |
| Net | 30,616 | 39,629 | 9,012 |
| For three months: | | | |
| Gross | \$195,508 | \$212,375 | \$16,866 |
| Net | 94,136 | 109,703 | 15,567 |

EDMONTON POWER CO., LTD.

The Edmonton Power Co., Ltd., organized by Mr. G. W. Farrell, of the Montreal firm of G. W. Farrell and Co., has entered into an agreement with the City of Edmonton for 21 years, for a minimum annual supply of electric energy of 35,000,000 k.w. at 1c per k.w. hour, for the lifetime of the contract, the price to decrease on a sliding scale from 1c, until finally as the consumption by the city reaches 110,000,000, the rate becomes 1/2c.

Announcement as to the amount of the company's capital and the financial groups interested has not yet been made.

SAWYER-MASSEY CO.

Sawyer-Massey Co., Ltd.'s statement for 1915 is favorable by comparison with that of the previous year, showing a profit of \$66,951 after interest and bond discount charges, against a deficit of \$254,273 in 1914. The balance available for dividends, however, was equal to only 4.46 per cent earned on the preferred stock, against which there was an accumulation of 8 1/4 per cent in deferred dividends by the end of 1915. The profit and loss statement shows the following comparisons for three years:

| | 1915. | 1914. | 1913. |
|------------------------|-----------|------------|-----------|
| Profits | \$116,606 | x\$206,802 | \$173,917 |
| Interest, etc. | 49,655 | 47,471 | 57,286 |
| Balance | \$ 66,951 | x\$254,273 | \$116,630 |
| Pref. div. | | 78,750 | 105,000 |
| Balance | \$ 66,951 | x\$333,023 | \$ 11,630 |
| Prev. bal. | 39,244 | 372,268 | 360,638 |
| Balance | \$106,196 | \$ 39,244 | \$372,268 |

xDeficit.

SHAWINIGAN ELECTRO-METALS, LTD.

Shawinigan Electro-Metals, Ltd., a new Shawinigan Water and Power Co. subsidiary, which started to manufacture metallic magnesium in a modest way last summer, has now enlarged its output to from eight to ten tons a month. As the metal is quoted at \$3.50 to \$4 a pound the output of the plant has a value of approximately \$80,000 a month, or close to a \$1,000,000 a year. On this it is earning a substantial margin of profit, a satisfactory costs basis being easily obtainable owing to the unlimited supply of cheap power at the disposal of the company. In its way the enterprise, brought into being by war conditions, has proved one of the most profitable extensions of the electric furnace idea, and will probably be a permanent industry for the Shawinigan district.

CANADIAN EXPLOSIVES, LTD.

Canadian Explosives, Ltd., has decided to exercise an option granted in the trust deed securing its bond issue and retire all outstanding bonds of the issue of May 1st, 1911, on June 1st next. The bonds outstanding amount to \$440,000 of an authorized issue of \$2,000,000, and are understood to be the company's only mortgage obligation. The bonds were a long term issue, but the company has the privilege of calling them in for redemption at 105 and accrued interest on and after June 1st, 1916. The privilege is to be promptly availed of by the company.

Although the head office of the company is here, little is known as to its affairs.

DETROIT UNITED.

Returns covering the first quarter of Detroit United Railway's year, show gross earnings of \$3,294,907, against \$2,676,049 in the same period of 1915. The increase of \$618,858 works out to slightly more than 23 per cent, a very satisfactory showing in view of the general backwardness of traction company earnings.

Gross earnings by months for the quarter, with comparisons, follow:

| Month. | 1916. | 1915. | Increase. |
|--------------------|-------------|-------------|-----------|
| January | \$1,097,386 | \$901,325 | \$196,061 |
| February | 1,039,693 | 835,472 | 204,221 |
| March | 1,157,828 | 939,252 | 218,576 |
| Total | \$3,294,907 | \$2,676,049 | \$618,858 |

GRAND TRUNK ANNUAL.

The annual meeting of the Grand Trunk Railway was held a few days ago in London, England, and was presided over by Mr. A. W. Smithers, Chairman of the Board. Only routine business was transacted.

AMONG THE COMPANIES

CONSOLIDATED MINING AND SMELTING COMPANY.

Shareholders of the Consolidated Mining and Smelting Company of Canada are now able to send in their stock for exchange into shares with a par value of \$25, according to officials of the company.

It will be remembered that the shareholders authorized the change some time ago. There is no obligation on the holders to turn in their scrip, but presumably the large portion of it will be exchanged within the next few months. When this has been done, the stock will be quoted on the stock exchange on the new basis.

Consolidated Mining and Smelting Co. has started construction of a plant at the Trail Smelter for the manufacture of sulphuric and hydrofluoric acid, which is expected to be ready for operations in two months. A site is also being cleared for a copper refinery and the existing lead refinery will also probably be extended.

The new plant for the manufacture of zinc is now in operation.

CANADIAN CHINA CLAY CO.

A branch railroad line is now being constructed to connect the mines of the Canadian China Clay Co., which owns a large kaolin deposit in the township of Amherst, Quebec, with the Canadian Northern system. The grading of the branch has been completed, the rails are on the ground, and it is expected that the line will be in operation about May 1st.

The Canadian China Clay Co. was formed for the purpose of developing the kaolin deposit in Amherst township, and is now applying for a Dominion charter, the capital of the company to be \$1,500,000.

J. C. Browerick is managing director of the new company, and among others interested are Sir Wm. Mackenzie, Sir Donald Mann, Andrew Shearer and A. G. Gardner.

KERR LAKE MINING CO.

Kerr Lake Mining Company's March production of 214,920 ounces of silver broke output records of the company since 1910-1911. February production was 163,995 ounces, and 184,697 in January, or 563,612 ounces for the quarter, compared with 552,710 ounces for the previous quarter, or last three months of the calendar year 1915. It is likely that the company will continue to force production during prevailing high prices for silver. March earnings are estimated at close to \$80,000, based on a 21-cent cost and 58c silver. A production of \$200,000 ounces monthly at 21c cost and sold at 62½c, the present price, would net \$83,000 monthly. Dividend requirements at 25c quarterly call for \$50,000 per month.

CANADA STEAMSHIPS.

Canada Steamships preferred which we recommended last month as an attractive speculative investment at around 75 has since advanced to 80, but we do not believe that the stock has yet discounted the changed position of the company. There are 12½ per cent cumulative dividends in arrears as at June 1st. At the company's present rate of net earnings of \$200,000 per month there will be 50 per cent earned against this preferred stock. This would be sufficient to pay off dividends in arrears and so strengthen the company's position as to make a comparatively high class preferred stock of this issue. The recent acquisition of the St. Lawrence and Chicago Company will add a great deal to the earning power.—Greenshields & Co. Monthly Letter.

DOMINION BRIDGE CO.

Directors of Dominion Bridge Company met here a few days ago, and declared a quarterly distribution of 2 per cent in dividend and 3 per cent in bonus, or the same declaration as was made at each of the two preceding quarterly meetings.

For the first half of the current year then the shareholders will receive 10 per cent, and there is no reason to believe that the policy will be changed in the second six months. The company is booked to capacity for some months ahead, has recently closed some new business, and has a still larger contract under negotiation.



MR. J. W. NORCROSS,
Managing Director Canada Steamships.

NOVA SCOTIA CAR WORKS, LTD.

It is now said that the Nova Scotia Steel and Coal Company may take over the Nova Scotia Car Works, Ltd., which is in liquidation.

The Nova Scotia Car Works, Ltd., is not to be confused with the Eastern Car Company, a subsidiary of the Nova Scotia Steel Company, which was organized about the same time as the former. The Eastern Car Co. has proved a pronounced success.

A meeting of the shareholders of the Nova Scotia Car Works, Limited, was held a few days ago, just prior to the meetings of the court to see if there was any possibility of saving the company for the shareholders. A committee which had been appointed some time before to look into the whole matter reported practically to the effect that it was impossible to do anything.

The liabilities of the company, exclusive of \$200,000 gold not certificates, amount to \$147,000.

The Eastern Trust Company is the liquidator.

CANADIAN CAR AND FOUNDRY CO.

Negotiations for the sale of the Fort William plant of the Canadian Car and Foundry Co., to the Russian Government are being held up, temporarily at least, by the unwillingness of the Fort William authorities to release the company from certain obligations which it assumed when the plant was built.

It is understood that Russia is in urgent need of a plant that could be set to work on the assembling of freight cars built in America, and shipped in parts to Vladivostok. If the government set to work to build a plant of its own, it would take about two years to get it running. Against that, the ready-made plant at Fort William, one of the most up-to-date on the continent, could be dismantled in three months and shipped and erected in three to six months, making an operation of six to nine months only. When its work was over after the war as a plant for the re-assembling of cars made in America, it would be put to use for ordinary car building purposes.

Apart from some of the side walls, which are of tiled construction, practically everything above ground could be moved from Fort William to Russia. The machinery is naturally the foremost consideration, but most of the buildings could be dismantled and re-erected without difficulty.

The only difficulty in the way is the unwillingness of the City of Fort William to have the plant moved from there, but it is believed that this object will eventually be overcome.

NORTH THOMPSON MINE.

The North Thompson Mine, which adjoins the Vi-pond, is containing its shaft to the 500-foot level. Considerable development work has been done on the 100, 200 and 300-foot levels. Plans are in progress for the erection of a mill, but no definite announcement has yet been made by the New York interests which control the property.

NEW COMPANIES.

The following new incorporations have been announced during the past week:

Dominion Charters.

The Crowley Manufacturing Co., Limited, Toronto, \$100,000.
The Cunningham and Thompson Co., of Canada, Limited, Halifax, \$40,000.
Feaster Corporation of Canada, Limited, Montreal, \$50,000.
Dominion Sugar Co., Limited, Wallaceburg, Ont., \$5,000,000
Joliette Steel Co., Limited, Montreal, \$100,000.
Sherbrooke Iron, Metal, and Hide Co., Limited.
Arthur D. Little, Limited, Montreal, \$50,000.
Canadian Aloxite Co., Limited, Stamford, Ont., \$100,000.
Gaste, Limited, London, Ont., \$40,000.
Automobile Owners' Accessory Co., Limited, Montreal, \$50,000.
Kenabeek Silver Mines, Limited, Montreal, \$1,000,000.
Reliance Foundry, Limited, Montreal, \$50,000.

Quebec Charters.

Unique Apartment Co., Montreal, \$16,000.
Laurentide Sand and Gravel, Limited, Quebec, \$49,500.
Steamer Howard W., Limited, Quebec, \$10,000.
Steamer Stuart W., Limited, Quebec, \$10,000.
Steamer Richard W., Limited, Quebec, \$10,000.
General Lumber and Manufacturing Co., Limited, Sherbrooke, \$49,000.
La Compagnie de Tabac Saint-Hyacinthe, Limitee, St. Hyacinthe, Que., \$20,000.
La Compagnie de Bois de Construction Eureka, Limitee, Montreal, \$49,000.
Home Securities, Limited, Montreal, \$5,000.
Imprimerie Maisonneuve, Limitee, Maisonneuve, \$20,000.
The Ha Ha Bay Sulphite Co., Limited, Chicoutimi, \$2,000,000.

Ontario Charters.

Byrns Pneumatic Ship Raising Co., Limited, Hamilton, \$40,000.
J. R. Clipsham and Sons, Gravenshurst, \$40,000.
Burlington Metals Company, Limited, Hamilton, \$40,000.
Big Six Ranch, Limited, Toronto, \$20,000.
Garlock Walker Machinery Co., Limited, Toronto, \$47,500.
Snyder Snap Button and Fastener Company, Limited, Toronto, \$40,000.
Drummond Fuel Company, Limited, Toronto, \$20,000.
The Palace Road Telephone Company, Limited, Napanee, \$4,000.
The Electrotypers, Limited, Toronto, \$40,000.
The Doyle-Dennett Tractor Company, Limited, Essex, \$150,000.
Investors and Traders, Limited, Toronto, \$1,000,000.

British Columbia Charters.

Brown Fraser and Co., Limited, Vancouver, \$25,000.
Shelly Brothers, Limited, Vancouver, \$200,000.
The Resource Bonding Company, Limited, Vancouver, Limited, \$10,000.

THE DULUTH-SUPERIOR TRACTION CO.

Comparative weekly statement of gross passenger earnings for month of April, 1916:

| | 1916. | 1915. | Increase. | P.C. |
|-----------------|--------------|--------------|-------------|------|
| 1st week. . . . | \$25,727.40 | \$21,462.90 | \$4,264.50 | 19.9 |
| 2nd week. . . . | 23,995.62 | 20,108.17 | 3,887.45 | 16.3 |
| Month to date | \$49,723.02 | \$41,571.07 | \$8,151.95 | 19.6 |
| Year to date | \$371,537.29 | \$327,908.33 | \$43,628.96 | 13.3 |

COPPER COMPANIES.

Financial World estimates that in first quarter of 1916, 35 dividend-paying copper producers disbursed \$26,838,172, or at the rate of over \$107,000,000 for the year, compared with \$54,964,951 in 1915. Earnings were nearly three times dividend disbursements, or approximately \$75,291,120.

BANK OF MONTREAL

Established 1817

| | | |
|-------------------|-----------|------------------|
| Capital Paid Up | - - - - - | \$ 16,000,000.00 |
| Reserve Fund | - - - - - | 16,000,000.00 |
| Undivided Profits | - - - - - | 1,293,952.00 |
| Total Assets | - - - - - | 302,980,554.00 |

BOARD OF DIRECTORS:

| | | |
|--|----------------------------|------------------------|
| H. V. MEREDITH, Esq., President | | |
| R. B. ANGUS, Esq. | E. B. GREENSHIELDS, Esq. | SIR WILLIAM MACDONALD, |
| Hon. ROBERT MACKAY, | LORD SHAUGHNESSY, K.C.V.O. | C. R. HOSMER, Esq. |
| A. BAUMGARTEN, Esq. | C. B. GORDON, Esq. | H. R. DRUMMOND, Esq. |
| D. FORBES ANGUS, Esq. | | WM. McMASTER, Esq. |

Head Office, MONTREAL

General Manager, SIR FREDERICK WILLIAMS-TAYLOR, LL.D.
Assistant General Manager, A. D. BRAITHWAITE, Esq.

Bankers in Canada and London, England, for the Government of the Dominion of Canada.

Branches established throughout Canada and Newfoundland; also in London, England, New York, Chicago, and Spokane.

Savings Department at all Canadian Branches. Deposits from \$1. upwards received and interest allowed at current rates.

A GENERAL BANKING BUSINESS TRANSACTED

The Situation in Britain

(Special Correspondence by W. E. DOWDING, London, Eng.)

Tuesday, April 10, 1916.

The imposition of new taxes, the increase of old ones, the spitfire assaults of the Zeppelins, the base underground work of a few labor agitators—all these things leave the country in the same mind as it has been since the war began. I am writing these notes after almost a week of our beautiful English April weather. The sun has warmed the pessimism out of us, and a visitor to England to-day would find us still confident, even more confident, of ultimate if not immediate victory. I think it is necessary to say this because even to-day a considerable section of our public press spends its time in carping criticism which has the effect of unsettling weak minds. Take, for example, the recent agitation about our air defenses. In the middle of it a constituency near London returned to the House of Commons a representative who voiced the anxiety of those who think the Government is doing nothing to defend the country against attacks from the air. How little that is true time will show. To-day we have that representative making a speech which contains this sentence: "Not more than two or three days of the war cost would be required to make 20,000 to 40,000 aeroplanes." How much reliance would a business man place upon such a statement, that has a variation of 50 per cent in one factor and 100 per cent in another? This very exact orator went on to declare that if the country would "stand by him," in six months time we should have secured the supremacy of the air, "and he would guarantee that by that time Zeppelin raids would be a thing of the past." I have taken this as an example of the kind of thing that is being said and that now and then enough people in a given area believe in sending a man to Parliament to talk like it there. It is sheer ignorant bombast, and sure enough, in a Midland Constituency a few days after the return of this inexact orator, who wants the country to "stand by him," another air raid candidate was roundly defeated and the constituency showed that it still had faith in the Coalition Government. In war time there is a great temptation to take short views. This incident will show that, however, great the temptation is it is as necessary as ever to avoid it. It illustrates also that in spite of all the attempts to make our blood creep we are still grimly determined to go on and win.

The attack upon the Coalition Government is taking another form, and a more insidious one. One day this week our leading newspaper—which is one of the instruments of the attack—asked these questions in a leading article.

"Is it really necessary that the vital interests of the country should be made dependent on Mr.

Asquith's reputation for consistency, or upon Mr. Bonar Law's attitude towards the coalition, or upon any of the personal questions which are agitating the lobbies and the newspapers? Cannot we agree to press for what we believe to be the right course and to follow only the men who take it? Those of us who are concerned about the present situation are not thinking of the future career of this or that politician or combination of politicians. We are thinking of the future of this Nation and Empire, which may come to utter grief while the politicians hesitate and wrangle."

It would hardly be believed that behind the passages I have quoted lurks the intention to set up in Parliament a new party, which shall make the work of the Coalition Government impossible. Mr. Bonar Law is attacked with Mr. Asquith because he, chief among the Unionists for whom places in the Cabinet were made by the retirement of Liberals, has stood staunchly by the undertakings that were then given. I am sorry to say also that there is a marked tendency to exploit the intense imperial sentiment of our people for the ends of this conspiracy. We saw it a few days ago very plainly when the Prime Minister of Australia was making that remarkable series of speeches which came to an abrupt end by his unfortunate illness. There are signs of it also in the steps that are being taken for the entry into Parliament of men like the Ex-High Commissioner of Australia, who will shortly be followed by other men whose names are known throughout the Empire. A new party is gradually being formed of such units, and with what object? There is a strong suspicion that Protectionism is at any rate one object; and while we have the Ministry of Munitions putting forth its full strength to suppress strikes in munition works, at the same moment we have responsible Labor leaders warning the men that if this country is to follow the example of Australia and adopt protection it must also adopt the eight hour day, the ten shillings pension, the control of wages, and all the other set-offs which the Labor ministry in Australia have found necessary to counteract the effects of protection. Here then we have all the elements of that very political wrangling which the newspaper I have quoted pretends to deplore. I do not for one moment believe the country is in the mood to discuss such things. It is vastly preoccupied with the war and the means of ending it; it is contributing without a murmur in a multitude of new ways to its cost, and there is no sign that the ingenuity and persistence of the assaults upon the power and responsibility of the present Government will bear fruit.

TELEPHONE CONGRATULATIONS TO TRAFFIC CLUB PRESIDENT OVER 2,500 MILES OF WIRE.

Mr. F. L. Bateman was elected a few days ago, to the Presidency of the Chicago Traffic Club. The new president of this important organization was in the Transportation Club at San Francisco when six hundred of his fellow club members met in Chicago at their annual dinner to do him honor. It was arranged to give him the news of his election by transcontinental telephone, and accordingly telephone receivers were placed at the dinner tables for the use of each guest. Mr. Fred Zimmerman, retiring President of the Club, conveyed the congratulations of the members over 2,500 miles of wire, and each person in the banquet hall heard distinctly this valedictory and the address of acceptance by Mr. Bateman. The Chicago Traffic Club warmly congratulated Mr. William E. Bell, division commercial superintendent of the American Telegraph and Telegraph Company, a brother of Mr. G. T. Bell, Passenger Traffic Manager of the Grand Trunk Railway System, on this wonderful demonstration of the efficiency of the transcontinental telephone.

A MAN'S JOB.

Some young men have balked at country life because they said the opportunity was not large enough. Opportunity for what? Happily, the ideal of the average American as yet is not to possess a million dollars and a scandal in the family. Most folks are satisfied with prospects of making a good living; all comforts and some luxuries; good education for the children; some travel; friends good and true; and a contented independent old age. Every observing young man knows a farm offers all these things. He has seen farm after farm produce these "essentials" and more. What, then, further does he want? He wants that intangible thing, high place, which a noted philosopher observed was laborious and painful in getting, with standing at the top slippery, and "the regress is either a downfall, or at least an eclipse, which is a melancholy thing." High place is a relative critter. One of the highest places we know is right in a farming community—unselfishly leading, boosting, serving—with final reward in universal commendation unsurpassed in any walk of life. In every rural community there is opportunity for a real man to do a real man's work. And still some say opportunity in the country is too small.—From the Farmer's Review.

UNDER THE BERLIN LINDENS.

We wonder how many Linden Julies there are to-day in Europe.

Linden Julie was a woman who stood every day for forty-five years under the trees that border the Unten den Linden thoroughfare in Berlin. Her sweetheart, tall and young, marched off to the war with France in 1870, and never returned. His name was not among the wounded or killed. When the troops returned victorious from the war and marched up the Unten den Linden, Julie stood there with joy and love in her eyes to welcome her hero. He did not come. She went the next day, and the next; and all the days since then for forty-five years she stood, waiting, never losing her faith that he would come. She grew white-haired, haggard, bent and feeble with the dragging years, and everyone in Berlin knew her as "Linden Julie." She died a few months ago.—New York World.

MORE MUNITION ORDERS.

Sir Thomas White has announced that additional munition orders amounting to \$80,000,000 have been placed in Canada. This follows the establishment of a credit of \$75,000,000 made some time ago by the Canadian banks.

Sir Thomas White announced on March 15th last that the credit for the British Government had been established as a result of an offer made by the Canadian Bankers' Association on behalf of the banks after conferences between himself and that body, which had extended over several weeks.

BANK OF MONTREAL PAYS BONUS.

Directors of the Bank of Montreal met Wednesday and declared the regular quarterly dividend of 2½ per cent, and with it the 1 per cent bonus which has been paid every half year since June, 1912. Dividend and bonus will be paid June 1st to shareholders of record April 29th.

IMPERIAL BANK OF CANADA

HEAD OFFICE, TORONTO

Capital Paid up, \$7,000,000 Reserve Fund, \$7,000,000
 PELEG HOWLAND, President E. HAY, General Manager

DRAFTS, Money Orders and Letters of Credit issued available throughout the World.

Dealers in Government and Municipal Securities.

Dealers in Foreign and Domestic Exchange.

Savings Department at all Branches.

Interest Credited Half-Yearly at Current Rates.

GENERAL BANKING BUSINESS TRANSACTED

THE DOMINION BANK

HEAD OFFICE - TORONTO

SIR EDMUND B. OSLER M.P., President
 W. D. 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.

THE HOME BANK OF CANADA

ORIGINAL CHARTER 1854

Head Office, Toronto. James Mason, General Manager

Branches and Connections Throughout Canada.

General Banking Business Transacted
MONTREAL OFFICES

Main Office, Transportation Bldg., St. James St.
 Bonaventure Branch, 523 St. James St.
 Hochelaga Branch, Cr. Cuvillier and Ontario Sts.
 Mt. Royal Branch, Cr. Mt. Royal and Papineau Ave.

ESTABLISHED 1872

BANK OF HAMILTON

Head Office: HAMILTON

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

BANK OF ENGLAND STATEMENT.

The Bank of England reports the proportion of reserve to liability at 29.10 per cent, against 28.71 per cent a week ago. Loans show a contraction of \$13,195,000. Gold holdings are smaller by \$213,055, which reduces the total to \$289,823,895. Total reserve is smaller by \$1,660,000. The rate of discount remains at 5 per cent. The weekly statement shows the following changes: Total reserve decreased £332,000, circulation increased £374,000, bullion increased £42,611, other securities decreased £2,639,000, other deposits increased £8,685,000, public deposits increased £9,624,000, notes reserve decreased £321,000, Government securities unchanged.

The detailed return compares as follows:

| | 1916. | 1915. | 1914. |
|--------------------|-------------|-------------|-------------|
| Gold | £57,964,779 | £55,640,385 | £36,893,898 |
| Reserve | 42,384,000 | 39,758,015 | 26,711,688 |
| Notes res. | 42,317,000 | 33,371,495 | 25,067,495 |
| Res to liab. | 29.10% | 18½% | 43% |
| Circulation | 34,030,000 | 34,332,370 | 28,632,210 |
| Public deposits . | 59,178,000 | 125,413,672 | 18,803,572 |
| Other deposits . | 86,646,000 | 88,749,742 | 42,418,275 |
| Gov't securities . | 33,187,000 | 47,810,081 | 11,046,570 |
| Other securities . | 87,905,000 | 144,322,534 | 41,160,415 |

The principal items compare as follows:

| | Gold. | Reserve. | Other securities |
|------------|-------------|-------------|------------------|
| 1916 | £57,964,779 | £42,384,000 | £87,905,000 |
| 1915 | 55,640,385 | 39,753,015 | 144,322,534 |
| 1914 | 36,893,898 | 26,711,688 | 41,160,415 |
| 1913 | 38,203,292 | 28,218,387 | 33,559,254 |
| 1912 | 39,489,031 | 29,299,196 | 34,834,310 |
| 1911 | 37,187,071 | 27,617,986 | 33,971,894 |
| 1910 | 37,736,927 | 25,642,202 | 27,831,588 |

The proportion of reserve to liabilities shows the following:

| | Per cent. | | Per cent. |
|------------|-----------|------------|-----------|
| 1916 | 29.10 | 1910 | 50% |
| 1915 | 18½ | 1909 | 49% |
| 1914 | 43% | 1908 | 54½ |
| 1913 | 49% | 1907 | 45% |
| 1912 | 48% | 1906 | 39% |
| 1911 | 47 | 1905 | 50% |

BANK OF FRANCE REPORT.

The weekly statement of the Bank of France shows the following changes, in francs: Gold in hand increased 6,119,000, silver in hand increased 396,000, notes in circulation increased 55,464,000, Treasury deposits increased 711,000, general deposits increased 42,810,000, bills discounted increased 38,161,000, advances decreased 7,913,000.

The principal items in the statement compare as follows, in francs (000 omitted):

| | April 20, 1916. | April 13, 1916. | April 6, 1916. |
|--------------------|-----------------|-----------------|----------------|
| Gold | 4,899,400 | 4,893,300 | 4,986,300 |
| Silver | 359,700 | 359,300 | 362,700 |
| Circulation | 15,239,400 | 15,183,900 | 15,154,500 |
| Depositors | 2,036,600 | 1,993,800 | 2,239,800 |
| Loans and disc .. | 3,237,800 | 3,225,200 | 3,108,200 |
| Treasury dep. | 77,800 | 37,100 | 68,100 |

CONFIDENCE HAS INCREASED.

Editor Hirst, of London Economist says: since Premier Asquith's speech confidence has increased, especially in gilt-edged stocks. It is expected that more minimum prices will be removed soon, and treasury is taking new steps to encourage investment in war loans. Enormous quantity of outstanding treasury bills is due to fact that investors and business men wish to have funds available as soon as peace comes in sight. Besides this, treasury bills fill the void left by great reduction of trade in bank bills.

WHAT BANKS ARE FOR.

Banks are merely instruments for the service of the public. A bank's first duty is not to its stockholders or to its board of directors, but to its depositors. Such a course does not sacrifice the interests of the stockholders but promotes them. Banks cannot prosper unless the public prospers. The better the banks serve the public the better for their stockholders.—Exchange.

BANKER GOING OVERSEAS.

The Commanding Officer of the new Peel County Battalion (the 234th) is Lt. Col. Wellington Wallace, who in ordinary life is manager of the Church street branch of the Home Bank in Toronto. He is an Irishman, who has already had considerable military experience, and will undoubtedly make a most efficient officer.

"A LITTLE NONSENSE NOW AND THEN."

Pat—Yis, sor, work is scarce, but Oi got a job last Sunday that brought me five dollars. Mr. Smith—What. You broke the Sabbath? Pat (apologetically)—Well, sorr, 'twas wan av us had t' be broke.

"What is it, children," asked the teacher, "that binds us together and makes us better than we are by nature? Who can tell?"

Little Helen Smith's hand shot up.

"Yes, Helen, you can tell."

"Yes'm. Corsets."

"Mike," said Pat, "how do yez tell the age of a fowl?"

"Oi can always tell by the teeth," shot back Mike. "By the teeth!" exclaimed Pat. "But a fowl ain't got no teeth!"

"No," admitted Mike, "but Oi have."

"Of course, I don't wish to put any obstacle in the way of your getting married," a mistress said to her servant, "but I wish it were possible for you to postpone it until I get another maid."

"Well, mum," Mary Ann replied, "I 'ardly think I know 'im well enough to arsk 'im to put it off."—Canadian Pictorial.

Mother (angrily)—"Why didn't you come when I called you the first time?"

Willie—"Cause I didn't hear you till you called the third time."

Mother—"Now, how could you know it was the third call unless you heard the other two?"

Willie—"Easy enough, ma. I knew it was the third time 'cause you sounded so mad."—Exchange.

An official of the board of health in a town not far from Boston, says the Post of the Hub City, notified a citizen of the town that his license to keep a cow on his premises had expired. In reply to this letter, the official received the following communication: "Monsieur Bord of Helt—I just get your notis that my licens to keep my cow has expire. I wish to inform you, M'sieur Bord of Helt, that my cow she beat you to it — she expire t'ree weel ago. Much oblige. Yours with respect, Pete —"

An anemic elderly woman, who looked as if she might have as much maternal affection as an incubator, sized up a broad-shouldered cockney who was idly looking into a window on the Strand, and in a rasping voice said to him:

"My good man, why aren't you in the trenches? Aren't you willing to do anything for your country?"

Turning around slowly, he looked at her a second and replied contemptuously: "Move on, you slacker! Where's your war baby!"—London Opinion.

A Cockney angler, thinking his Highland boatman was not treating him with the respect due to his station, expostulated thus:

"Look here, my good man, you don't seem to grasp who I am. Do you know that my family has been entitled to bear arms for the last two hundred years?"

"Hoots! that's naething," was the reply. "My ancestors have been entitled to bare legs for the last two hundred years."—Tit-Bits.

A Methodist bishop was a guest at the home of a friend who had two charming daughters. One morning the bishop, accompanied by the young ladies, went out in the hope of catching some trout. An old fisherman, out for the same purpose, wishing to appear friendly, called out:

"Ketchin' many, pard?"

The bishop, drawing himself to his full height, replied, "Brother, I am a fisher of men."

"You've got the right kind of bait, all right," was the fisherman's rejoinder.—Exchange.

Pat Murphy, a contractor, became rich and prosperous, and bought an expensive automobile. So Mrs. Murphy invited Mrs. O'Hara for a ride in it.

"Whatever you do, Mrs. O'Hara, don't talk to the shoffer; not a single whisper to him, for it'll take his mind off what he's doin'."

They started out at a rapid clip. The chauffeur zipped around one corner and then around another; at times the car would be on two wheels. Finally Mrs. O'Hara touched the chauffeur on the back and said, apologetically:

"Mr. Shoffer, I beg your pardon. I was told not to speak to you, but Mrs. Murphy ain't been in the car for the last ten minutes."

The Canadian Bank of Commerce

ESTABLISHED 1867

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

BOARD OF DIRECTORS

| | |
|--|--|
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| E. R. WOOD, Esq. | H. C. COX, Esq. |
| JOHN AIRD, General Manager. | H. V. F. JONES, Assistant General Manager. |

BRANCHES IN CANADA

44 in British Columbia and Yukon. 88 in Ontario. 81 in Quebec. 129 in Central Western Provinces. 23 in Maritime Provinces.

BRANCHES AND AGENCIES ELSEWHERE THAN IN CANADA

St. John's, Nfld. London, Eng. New York. San Francisco. Portland, Oregon. Seattle, Wash. Mexico City.

The large number of branches of this Bank enables it to place at the disposal of its customers and correspondents unexcelled facilities for every kind of banking business, and especially for collections.

SAVINGS DEPARTMENT

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

GERMANY'S SUN UNDER A CLOUD.

Germany may be fighting for a place in the sun, but is on the point of losing her place in Africa, where the sun shines as hotly as the warmest places on earth. Surrender of German East Africa, with its population of 8,000,000 and comprising 384,180 square miles, is looked for shortly, as remnants of its defenders are fighting in the last ditch and practically surrounded.

When war broke out, Germany owned 1,032,280 square miles in Africa, with population of 16,000,000. German Southwest Africa, surrendered on Aug. 27, 1914, is 322,450 square miles, with population of 200,000.

Kamerun or Cameroon, with square mileage of 291,950 and population of 3,500,000, saw the last German troops about Feb. 17, most of them having crossed into Spanish territory to be interned.

Togoland, comprising 33,700 square miles, with population of 2,500,000, was surrendered as early as August 7, 1914.

Germany has spent billions of marks in development of these colonies, and capture of territory totaling 1,032,280 square miles (Germany has 208,830 square miles) is an important card in the allies' hands when the belligerents finally sit around the peace table.

Africa has a population of 157,000,000 and comprises 11,520,000 square miles. Great Britain controlled before the war 3,463,117 square miles, with population of 45,900,000.

France's sphere of influence spread to 1,912,224 square miles, including Madagascar, with population of 33,518,914.

Portugal controls 791,000 square miles, with population of 3,420,000.

Italy is holding Tripoli, of 398,738 square miles and 1,300,000 population.

The United States has a sphere of interest in Liberia which comprises 52,000 square miles and population of 2,060,000.

The Congo Free State is the largest single territory in Africa, although having the smallest population for its area, which is 900,000 square miles, with population totaling 15,000,000. — The Wall Street Journal.

DUBIOUS ABOUT THRIFT.

While most people these days are lauding thrift as a virtue, the San Francisco "Argonaut" maintains an attitude of reserve, though quite willing that others should practice thrift if they want to. Here is what is said:

"Frank C. Mortimer is the author of a dainty little volume of 'Paragraphs on Thrift,' just published by the Bankers Publishing Company, New York. We are not at all sure that thrift is a good thing and we are quite sure that we have no predilections in that direction, but so long as there are people who wish to practice thrift it is well that they should be encouraged by such bright and clever precepts."

A DEALER IN CREDITS.

Fundamentally, a banker is a dealer in credits. He buys, sells and standardizes credits.

BANK OF NOVA SCOTIA CHANGES.

As Mr. F. W. Ross, formerly manager of the branch in Hamilton, is now located in Winnipeg and has assumed duties as manager of the branch there. Mr. Ross has spent the better part of his life with this bank. He succeeded the late Blair Robertson. Mr. Ross, as it happens, succeeded Mr. Robertson in the management of the Bank of Nova Scotia in Havana, Cuba, when the latter went to Hamilton, and at a later date when Mr. Robertson was transferred from Hamilton to Winnipeg, Mr. Ross went from Havana to Hamilton and succeeded his friend in that city.

UNIFIED BANKING SYSTEM.

What we need in this country is a unified banking system which can only be had by the co-operation of state and national banks under the Federal Reserve Act. In union there is strength.—Jas. B. Forgan, of Chicago.

ESTABLISHED 1832

Paid-Up Capital
\$6,500,000



Reserve Fund
\$12,000,000

TOTAL ASSETS OVER \$100,000,000

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

THE BANK OF NOVA SCOTIA

WESTERN ASSURANCE COMPANY

INCORPORATED 1851
Fire, Explosion, Ocean Marine
and Inland Marine Insurance.

Assets Over - - - \$4,000,000.00
Losses paid since organiza-
tion, 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

UNION ASSURANCE SOCIETY LIMITED

OF LONDON, ENGLAND

FIRE INSURANCE SINCE A.D. 1714

Canada Branch, Montreal:
T. L. MORRISSEY, RESIDENT MANAGER.
North-West Branch, Winnipeg:
THOS. BRUCE, BRANCH MANAGER.

AGENCIES THROUGHOUT THE DOMINION

The London & Lancashire Life and General Assurance Association, Limited

Offers Liberal Contracts to Capable Field Men
GOOD OPPORTUNITY FOR MEN TO BUILD
UP A PERMANENT CONNECTION
WE PARTICULARLY DESIRE REPRESENTATIVES
FOR CITY OF MONTREAL
Chief Office for Canada:
164 ST. JAMES STREET, MONTREAL.

ALEX. BISSETT - - - Manager for Canada

British America Assurance Company

FIRE, MARINE AND HAIL.
Losses paid since organization over \$38,000,000.
W. R. BROCK - - - - - President
W. B. MEIKLE, Vice-President and General Manager

PROVINCE OF QUEBEC BRANCH:
Lewis Building, 17 St. John Street
MONTREAL
THOMAS F. DOBBIN - - - Resident Manager
HAVE VACANCIES FOR A FEW GOOD CITY AGENTS

Founded in 1805

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.

Commercial Union Assurance Co. LIMITED

OF LONDON, ENG.

The largest general Insurance Company in the world
[AS AT 31st DECEMBER, 1915]

| | |
|-----------------------------------|--------------|
| Capital Fully Subscribed | \$14,750,000 |
| Capital Paid Up | 1,475,000 |
| Life Fund and Special Trust Fund | 72,629,385 |
| Total Annual Income Exceeds | 45,000,000 |
| Total Funds Exceed | 133,500,000 |
| Total Fire Losses Paid | 174,226,575 |
| Deposits with Dominion Government | 1,208,433 |

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

Applications for Agencies solicited in unrepresented districts.
J. MCGREGOR - - - - - Mgr. Canadian Branch
W. S. JOPLING - - - - - Asst. Manager

SAVING THE OLD BOYS.

The improvement in health of babies, children, and young people is proceeding satisfactorily. In coming to this conclusion we are not forced to rely upon opinions of people who may be optimistically inclined fundamentally, but the mortality statistics show it plainly. On the other hand, the health of men and women over 50 is not improving. Vital statistics show that that group is worse off than they were a generation ago.

Everybody likes to see the babies, children, and youths get every good thing they can. Nobody would like to take away any money or thought that is going to them. But is it not about time that the old boys were having some attention?

The statisticians tell us that the United States is the only country in which this tendency is present. Our babies and children are better off than those of Sweden and Germany, but at somewhere near the forty-fifth year of life the scale begins to turn.

In Sweden the outlook for a long life of a man 60 to 65 years of age is 145 per cent better than it is in this country. In Germany it is 34 per cent better. In England and Wales 22 per cent better. The advantage is against us in comparison also with Denmark, France and Italy.

The reasons for our poor showing are several. More people are living to reach 50 than in the olden times. This increases the death rates from cancer and pneumonia, two very important diseases. The main reason for the lack of health and the high death rate among older people is the pace we go. This pace shows its effects in Bright's disease, heart disease, thickening of the arteries, and high blood pressure. It is to these diseases that the increase in sickness rate among people past 50 is due.

What can be done to decrease the danger from these diseases? For one thing we can consume less alcohol. Among other poisons which contribute to the disabilities of middle life are lead, tea, coffee, and tobacco, and perhaps also the habitual use of medicines of various kinds. If a man wants to avoid diseases which destroy life in the sixties and seventies he should limit his use of tea, coffee, tobacco, and drugs generally, and guard himself assiduously against lead poisoning.

One of the very important factors is syphilis. This more than any other form of infection puts strain upon the arteries.

Other infections are to be avoided if possible. The Spartan may walk with a limping gait in spite of his rheumatism, but he should know that persisting rheumatism wears out the arteries. Any form of infection, regardless of the time of life, is apt to record itself on the heart, the kidneys, or the arteries. Scarlet fever in childhood is responsible for much of the heart disease that goes undiscovered until middle life. An old, uncured gonococcus infection may cause arterio-sclerosis to appear at 30 or 40.

And then, there is too much work and worry and too little play. — Chicago Tribune.

GOOD REASONS FOR INSURING NOW.

There is one article that always increases in price. It is life insurance.

Every year the cost of guaranteeing your mother or wife or children an agreed sum in case of your death increases.

No company will insure you when you are a year older at as low a premium as now.

The cost increases because the chance of your dying next year is greater than for this year.

Next year you will have one year less of expectation of life.

This diminished expectation is an element of the cost in the premium.

You may pass a medical examination now for any kind and size of policy.

But next year the doctor may discover a slight defect in some vital organ and recommend that your application be accepted for only a small amount and for only an endowment or sub-standard form.

And the doctor who will accept you now may in another twelve months turn down your application as that of a too impaired life. The life streams of ancestry may then be carrying the seeds of untimely death.

This is worth consideration. Consideration means serious thinking.

Besides, it is the unexpected that happens. Automobile, a banana peel, a burglar or an unsuccessful surgical operation, a fire or a collision, may put a period to the sentence of your early life. — Central Life News.

THE Dominion Savings AND Investment Society

Capital - - - \$1,000,000.00
Reserve - - - 225,000.00

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

Dominion Savings Bldg.
LONDON, CANADA.

CANADA LIFE FACTS

Canada Life agents wrote \$1,000,000 more business in Canada in 1915 than in the previous year.

The Canada Life paid policyholders in 1915 \$7,822,201, this being over \$3,000,000 in excess of the similar payments of any previous year, and policyholders' dividends being the chief item.

The Canada Life Income in 1915, \$9,333,623.19, was the greatest in the Company's history.

The Surplus earned was \$1,480,866.
The Cash Dividends paid policyholders in 1915 were over \$2,800,000.

HERBERT C. COX,
President and General Manager

PRUDENTIAL TRUST COMPANY LIMITED

With influential and reliable Representatives in each Province of the Dominion, and an office in 14 Cornhill, London, E. C., England, is well equipped to give attention to all Trust Company business, comprising Trustee for Bondholders, Transfer Agents, Registrars, and to Act as Administrator under Wills, etc.

The Company maintains Real Estate and Insurance Departments as part of its organization.
Safety Deposit Boxes.

HEAD OFFICE:
Company's Building, St. John Street
MONTREAL

SOME TELEPHONE STATISTICS.

The annual report of the comptroller of railway statistics reveals the fact that the 15,072 persons employed by the 1,396 telephone companies of Canada received in wages last year \$8,357,000, or something less than \$560 per worker! During the same year the same companies earned over \$5,000,000 in profits. Australia owns its telephones, telegraphs, railways and other public utilities and pays her workers decent wages. — Ottawa Citizen.

Impregnable

During 1915, assets of the Sun Life of Canada increased 16% to **\$74,326,423** — much the largest resources held by any Canadian Life Company.

Sun Life of Canada Policies are SAFE Policies to buy.

**SUN LIFE ASSURANCE
COMPANY OF CANADA**
HEAD OFFICE — MONTREAL

North American Life

"Solid as the Continent."

PROGRESSIVE.

New business issued during the year 1915 exceeded that of the previous year by One and a Quarter Millions. Total business in force at December 31st, 1915, amounted to over \$56,200,000.

PROSPEROUS.

Net surplus held on Policyholders account increased during the year by \$385,927, and now amounts to over \$2,500,000, while Assets amount to over \$15,716,000.

It is a Policyholders' Company and a very profitable one for any agent to represent.

Numerous good agency openings are available. Correspond with E. J. Harvey, Supervisor of Agencies.

NORTH AMERICAN LIFE ASSURANCE COMPANY

Home Office, Toronto, Ont.
EDWARD GURNEY, President.
L. GOLDMAN, 1st Vice-President and Managing Director.

Burglary Insurance

STORES, OFFICES,
CITY RESIDENCES,
SUMMER RESIDENCES.

Accident, Health, Plate Glass Burglary, Fidelity Judicial and Contract Bonds, Employer's and Public Liability.

The Provident Accident and Guarantee Company

HEAD OFFICE — MONTREAL
160 St. James Street. Tel. Main 1626.

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.....\$42,000,000

FRED J. DARCH, S.S.,
ELLIOTT G. STEVENSON, S.C.R.,
Temple Bldg., Toronto, Can.

CONTEMPLATED NOT ACCIDENTAL.

Burnham: "What's the reason they're holding up my insurance?"

Adjuster: "There's a suspicion that your fire was not accidental."

Burnham: "But this is fire insurance, not accident insurance."

ENTHUSIASM.

Genuine enthusiasm is a ringing, smashing punch behind your selling arguments when working with your prospect. Always be enthusiastic. Enthusiasm with some of our representatives is spasmodic — they allow it to evaporate too quickly after securing an application. Perpetual enthusiasm is valuable. It is the glow, the health, the radiation that the salesmanship of the agent indicates in his words, actions, expressions, etc. Enthusiasm begins in the mind but depends to some degree on the body and is possibly only when the belief in your company and their policies and the determination to sell them are present. Sunshine breaking through the clouds is much like enthusiasm. It makes those within its focus work more sprightly, smile where they have frowned and become ambitious to achieve greater results. Enthusiasm is a contagion of optimism which radiates from the agent who feels that optimism and who passes that optimism on to the prospect to whom he talks.

Get that enthusiasm which tingles all the way from the back of your neck to your finger tips. Always feel as though you have just stepped out of a shower bath and had taken a brisk rub down. Be alive with energy and feel no ill toward anyone. Practice along this line becomes less of an effort as days go by and you feel that you are living in a grand old world. Enthusiasm is the result of the care you give yourself, the manner in which you conserve your energy and is the cause of that smashing punch which you use in your sales arguments and which will bring the signature to the dotted line.

Just as enthusiasm makes the great orator, puts the vim into every word he speaks, makes him live every word, so does enthusiasm in the life insurance salesman seem to put life into whatever he does or says. Enthusiasm is a positive force — a definite energy that carries thoughts from your mind and drills them into the minds of your prospects. It is like the clear tones of a bell. There are no muffled notes and consequently there are no flaws. It is the keynote of mind and body in tune, and like any agreeable thing it makes others glad to hear it and witness it.—Federal Life.

FEDERATION OF INSURANCE MEN.

Another reason why there should be a federation of those interested is that the whole membership of the insurance fraternity may be kept fully informed as to the plans and arrangements for improved legislation pertaining to the industry in order that each can add his assistance toward the work. That there will be legislation goes without saying. The only question is whether through neglect and delayed organization those so vitally interested will allow the situation to drift until too late, or whether by proper organization they will be in position to help formulate and arrange for such legislation as shall be for the benefit of all concerned. With systematic work this can be accomplished with the least possible expense of time and means, and that alone ought to cause every one interested to be willing to take hold and assist in the work.—E. R. Harper, Commissioner of Insurance of Colorado.

IS THE TAX ON INSURANCE A TAX ON THRIFT?

Mr. James V. Barry, is a high official of the Metropolitan Life Insurance Company, and he has been an insurance commissioner of some distinction, but he seems to be a rather poor political economist. The following pronouncement of his which has been widely quoted, explains his views upon the taxation question:

"I have never had any patience with the argument so frequently advanced, that insurance premiums should not be taxed, for the reason by so doing, the State is levying a tax on thrift. There is no force in that argument. In fact, there is no argument about it. All taxation, whatever its nature, is a tax on thrift. The thriftless pays no tax * * *. The taxation of thrift is necessary, essential, and in every way proper. What the companies should protest against is the taxation of misfortune."

INFANT MORTALITY.

Special attention is called to the fact that the annual mortality among babies in the United States is 124 per thousand and that much of this loss of baby life is preventable.

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 \$1,688,902.65 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.

Six Billionaire Life Companies

Of the six largest life insurance companies in the world five are mutual.

The sixth is debating the question of mutualizing at the present time.

The combined insurance in force of these companies is thirteen billions of dollars. We mention this to show that The Mutual Life of Canada is organized on the most popular system.

The mutual is the popular system because it is the most economical and the most democratic.

The Mutual Life of Canada aims to give and does give the largest amount of protection at the lowest possible cost.

THE MUTUAL LIFE ASSURANCE
Company of Canada
WATERLOO, ONTARIO.

George Wegenast, E. P. Clement,
Managing Director. President.
Assurances, \$101,000,000. Assets, \$27,000,000.

HERE I AM!

I am more powerful than the combined armies of the world.

I have destroyed more men than all the wars of the world.

I am more deadly than bullets, and I have wrecked more homes than the mightiest of siege guns.

I steal in the United States alone over \$3,000,000,000 each year.

I spare no one, and I find my victims among the rich and poor alike; the young and old; the strong and weak; widows and orphans know me.

I loom up to such proportions that I cast my shadow over every field of labor, from the turning of the grindstone to the movement of railroad trains.

I menace thousands upon thousands of wage-earners in a year.

I lurk in unseen places, and do most of my work silently. You are warned against me, but you heed not.

I am relentless. I am everywhere; in the home, on the streets, in the factory, at railroad crossings and on the sea.

I bring sickness, degradation and death, and yet few seek to avoid me.

I destroy, crush or maim; I give nothing, but take all.

I am your worst enemy.

My name is CARELESSNESS.—Exchange.

WHAT INSURANCE MEANS.

"A life insurance policy is a certificate of character, a certificate of health, a symbol of economic sufficiency and efficiency all in one."

FIRE LOSSES IN MARCH.

The losses by fire in the United States and Canada during March, as compiled by the N. Y. Journal of Commerce, amounted to \$38,680,250, compared with \$18,786,400 in March, 1915.

ALLIES HAVE THE NUMBERS.

It is estimated that population of all allied nations at war is 822,026,000 as against 159,444,000 for the Teutonic nations. Applying 17 per cent of the total population, former have 138,744,420 males of military age while latter have 27,105,480.

BANDSMEN WANTED

For 207th Overseas Battalion at Ottawa. Instruments and transportation furnished. Apply, stating instrument played, to
Lieut. J. M. Brown, 76 McLaren St., Ottawa, Ont.

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

**PUBLIC NOTICES****"LA COMPAGNIE DE BOIS DE CONSTRUCTION EUREKA, LIMITEE."**

Public notice is hereby given that, under the Quebec Companies' Act, letters patent have been issued by the Lieutenant Governor of the province of Quebec, bearing date the twenty-ninth day of March, 1916, incorporating Charles Brodeur, notary, Jules Mathieu, advocate, and King's Counsel, Arthur Jolivet, broker, Joseph Moise Loisele, broker and Joseph Pesant, gentleman, of Montreal, for the following purposes:

To carry on in all its branches a lumber, pulp wood, timber, furniture wood, cord wood and charcoal business, and manufacture, produce, sell, buy and fabricate lumber, pulp wood, timber, logs, furniture wood, charcoal and wood of all kinds, and all or any articles to be made wholly or partly therefrom;

To carry on in all its branches the business of a land and real estate company;

To purchase, lease, hold or otherwise acquire and own and develop lands of whatsoever description and whatsoever situate, and timber licenses, limits and leases, claims, berths, concessions, booming grounds, driving rights, water powers, water lots, and other emplacements, servitudes, rights and privileges whatsoever;

To purchase, lease or otherwise acquire the property, rights, franchises or privileges of any persons, firms or corporations owning timber claims, timber lands or licenses and to hold, sell, exchange, lease or otherwise dispose of same according to circumstances and the needs of the company;

To construct, purchase, lease or otherwise acquire and operate, manage or control and dispose of, by sale, exchange or otherwise, pulp and paper mills and mills for the preparation of timber, lumber, and furniture wood, door and sash factories, lath and shingle mills and other works for the making of any articles capable of being manufactured out of or with wood or wood and pulp waste resulting from the industry of the company; machine

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 Main 3071, 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

shops, manufactories, shops, plant and accessories necessary for the general exploitation of timber claims, timber limits, timber licenses or lands, including the cutting, transportation, handling, manufacturing and finishing of logs, lumber, timber, furniture wood, cord wood, charcoal and of any manufacture of wood, wood or pulp waste and all products of wood and other materials severally and in combination, and of all byproducts of wood whatsoever;

To construct, buy, lease or otherwise acquire, own and hold, operate, control and manage: (1.) warehouses, stores, shops, sheds, yards, offices and commercial establishments for the purpose of dealing generally, both wholesale and retail in all merchandise and products of the company, and also hotels, boarding houses, restaurants, halls, clubs, working-men's houses, dwellings, camps and structures of every kind and description suitable for the attainment and accommodating its workmen, employes or other persons; (2.) works and refining plants for the manufacture of all kinds of chemical products whatsoever manufactured, distilled or otherwise produced from the waste of the industry of the company or from the sap of trees such as maple syrup and sugar or other like products, and to sell or otherwise dispose of same in any manner whatever;

To construct, lease or otherwise own and equip; (1.) tugs, boats, barges or vessels of every description and to navigate same for the purpose of displacing or transporting the company's products, employes or any other persons, and to that end to build wharves, docks, piers, slips and works necessary for the improvement of navigation and also for the construction of tugs, boats, and vessels of all kinds, appliances and equipment for the handling of traffic under all forms; (2.) docks, dams, aqueducts, canals, flumes, drains, timber chutes, bridges, road ways, logging railways on land owned or controlled by the company and all other works, appliances and equipment incidental to the foregoing; (3.) power houses, equipment, machinery, plants and works for the generation, distribution and utilization of power under all forms for lighting, heating and other purposes for the use of the company, and to that end utilize and develop water courses and water powers for the floating and storing of wood, the production of electric power and utilize said power for the operation of saw-mills, factories and shops of the company or of other corporations or persons provided, however, that the sale, distribution and transmission of power or electric, hydraulic or other energy beyond the lands of the company be subject to all local and municipal by-laws on that behalf, and that in the county of Labelle;

To acquire by purchase, lease, exchange, or otherwise, and to use, hold and improve lands, tenements, hereditaments, immovables and interest therein, and generally to carry on the business of a land company, with the power of purchasing, holding, developing, improving, clearing, settling, cultivating, renting, pledging, hypothecating, exchanging, selling, and otherwise dealing in and disposing of real estate and lands, whether cultivated or not and any interest and right therein, and for that purpose to pay out and invest capital in purchasing, surveying, clearing and improving, developing and preparing for occupation and settlement, such lands as may be necessary for the purposes of the said company and in and upon such lands to make, construct, erect, build and maintain roads, bridges, and other internal communications, houses, mills,

factories and manufactures and other buildings and works necessary or expedient for the occupation or improvement of any such lands and to operate and carry on any works of improvements thereon;

To construct dwelling houses and other buildings upon such real estate or any part thereof;

To sell, lease, convey, exchange, dispose of, or otherwise deal with such real estate or any portion thereof, and to develop, improve and lay out any such property in building lots, streets, lanes, squares or otherwise;

To make advances by way of loans to purchasers or lessees of any part of the company, real estate for building purposes or other improvements, to aid by way of advances or otherwise in the construction and maintenance of roads, streets, water-works, sewers, and other works of improvement calculated to render the company's property more accessible and to enhance its value;

To take and hold mortgages, hypothecs, liens and charges, to secure the payment of the purchase price of any property sold by the company or any money due to the company from purchasers or advances by the company to purchasers for building purposes or other improvements;

To invest moneys in immovable property for the benefit of any person or corporation; to undertake the care and management of investments so made and similar investments, and guarantee the security of the same;

To acquire and own office buildings, apartment houses and any and all other classes of buildings, and to sell or lease the same or parts thereof and to act as managers or agents for such buildings;

To apply for and acquire on any terms letters patent of invention, patent rights, processes, trade marks, copy-rights, or any other privileges or protections of a like nature for or connected with any matter, articles, or subject of manufacture or convenient for the business of the company and to turn the same to account by manufacturing or working the same or granting licenses in respect thereof or otherwise;

To purchase or otherwise acquire or undertake all or any part of the business, property, assets or liabilities of any person, partnership, or company carrying on business with objects similar in whole or in part to those of the company, or possessed of property suitable and proper for the purposes of the company and to issue paid up shares, bonds, or debentures or other securities for the payment, either in whole or in part, of any such immovable property, business, rights, claims, privileges, and concessions;

To purchase, acquire, hold and own the capital stock, bonds and other securities of any other company, corporation or individual, carrying on or engaged in any business which this company is empowered to carry on or engage in, and to acquire, hold, sell, or otherwise dispose of such shares, bonds or other securities;

To remunerate by payment in cash and with the approval of the shareholders in stock, bonds or any other manner any person or persons, corporation or corporations, for services rendered or to be rendered in placing or assisting to place, or guaranteeing the placing of the shares of the stock of the company, or any debentures or other securities of the company, or in or about the formation or promotion of the company in the conduct of the business;

To enter into any arrangement for sharing of profits, union of interest, co-operation, joint adventure, reciprocal concession or otherwise, with any person, partnership or company carrying on or about to carry on any business or transaction which this company is authorized to engage in or carry on or to amalgamate with any such company;

To raise, and assist in raising money for and to aid by way of bonus, loan, promise, endorsement, guarantee of bonds, debentures or otherwise, of any other company or corporation, and to guarantee the performance of contracts by any such persons with whom the company may have business relations;

To distribute among the shareholders of the company, in kind, any property or assets of the company, and in particular any shares, debentures or securities of any other company or companies which may have purchased or taken over, either in whole or in part, the property, assets or liabilities of this company;

To invest and lend the moneys of the company not immediately required in such manner as may from time to time be determined;

To sell, lease, exchange, or otherwise dispose of, in whole or in part, the property, rights, or undertakings of the company, for such consideration as may be agreed upon, and in particular for shares, debentures or securities of any other company;

To enter into any arrangement with any government or authorities, supreme, municipal, local or otherwise, that may seem conducive to the company's objects, or any of them, and to obtain from any such government or authorities, any rights, privileges and concessions which it may be desirable to obtain, and to carry out, exercise and comply with, or sell, or dispose of any such arrangements, rights, privileges and concessions;

To make donations and subscriptions to any objects likely to promote the interest of the company, and to create and contribute to pension and other funds and schemes for the benefit of person employed by the company, or the wives, widows, children, or dependents of any such persons and to subscribe or guarantee money for any charitable or public object;

To do all such other acts and things as are incidental conducive to the attainment of the above objects, or any of them, and to carry on any business for the manufacturing or otherwise germane to the purposes and objects set forth, and which may

DIVIDEND NOTICE**THE STANDARD BANK of Canada****QUARTERLY DIVIDEND NOTICE NO. 102**

Notice is hereby given that a dividend at the rate of THIRTEEN PER CENT PER ANNUM upon the Capital Stock of this Bank has this day been declared for the quarter ending the 29th April, 1916, and that the same will be payable at the Head Office in this City and its Branches on and after Monday, the 1st of May, 1916, to shareholders of record of the 21st April, 1916.

By order of the Board,

G. P. SCHOLFIELD,
General Manager

seem to be carried on to enhance the property that end to wood, furniture, descriptions and or owned by business purposes.

The thing gations men be deemed to other, under Construction forty-nine thousand one thousand of twenty-five. The principle will be in this. Dated from this twenty-

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Effective stated), Spr the Grand real is conc

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seem to the company capable of being conveniently carried on by it or calculated, directly or indirectly, to enhance the value of or render profitable any of the properties or rights of the company, and to that end to import and export timber, lumber, pulp wood, furniture wood or wood of all kinds and descriptions and all products produced, manufactured or owned by the company or any thereof for its business purposes;

The things, rights, powers, privileges and obligations mentioned in any of the above clauses shall be deemed to be several and not dependent on each other, under the name of "La Compagnie de Bois de Construction, Eureka, Limitee," with a capital of forty-nine thousand dollars (\$49,000.00), divided into one thousand nine hundred and sixty (1960) shares of twenty-five dollars (\$25.00) 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 twenty-ninth day of March, 1916.

C. J. SIMARD,
Solicitor for Applicants.
JULES MATHIEU, C.R.,
Solicitor for Applicants.

GRAND TRUNK SPRING TIME-TABLE CHANGES.

Effective Sunday, April 30th (unless otherwise stated), Spring timetable changes will be made on the Grand Trunk Railway System so far as Montreal is concerned, they are as follows:—

Montreal-Vaudreuil.

New train will leave Montreal 7.15 a.m. daily except Sunday, arriving Pointe Claire 7.48 a.m.

New train will leave Montreal 7.24 a.m. daily except Sunday, arriving Pointe Claire 7.56 a.m.

New train will leave Montreal 11.45 a.m. Saturdays only, arriving Lachine Wharf 12.08 p.m.

Train now leaving Montreal 12.09 p.m. daily except Saturday and Sunday for Vaudreuil, will run to Pointe Claire only, daily except Sunday.

New train will leave Montreal 1.20 p.m. Saturdays only arriving Vaudreuil 2.05 p.m.

Train now leaving Montreal 1.30 p.m. Saturdays and Sundays only for Vaudreuil, will run daily except Saturday.

New train will leave Montreal 1.46 p.m. Saturdays only, arriving Lachine Wharf 2.05 p.m.

New train will leave Montreal 2.15 p.m. Saturdays and Sundays only, arriving Vaudreuil 3.10 p.m.

New train will leave Montreal 4.10 p.m. daily except Sunday, arriving Pointe Claire 4.37 p.m.

Train now leaving Montreal 5.15 p.m. daily except Sunday, arriving Vaudreuil 6.05 p.m., will run through to Valleyfield, arriving at 6.50 p.m.

New train will leave Montreal 5.45 p.m., daily except Sunday, arriving Vaudreuil 6.40 p.m.

New train will leave Montreal 8.15 p.m. Sundays only, arriving Pointe Claire 8.50 p.m.

New train will leave Montreal 9.01 p.m. daily, arriving Vaudreuil 9.55 p.m.

Train now leaving Montreal 11.40 p.m. daily will run daily except Saturday to Vaudreuil; train on Saturday will leave Montreal 11.55 p.m., arriving Vaudreuil 12.50 a.m.

Vaudreuil-Montreal.

Train now leaving Montreal 7.20 a.m. daily except Sunday, arriving Montreal 8.20 a.m., will leave Vaudreuil 7.00 a.m., daily, except Sunday, arriving Montreal 8.00 a.m.

New train will leave Pointe Claire 7.55 a.m. daily except Sunday, arriving Montreal 8.33 a.m.

Train now leaving Vaudreuil 7.50 a.m., daily, for Montreal, will leave Vaudreuil 7.35 a.m., Sundays only, arriving Montreal 8.40 a.m.

New train will leave Valleyfield 7.15 a.m., daily, except Sunday, leaving Vaudreuil 8.00 a.m., arriving Montreal 8.42 a.m.

New train will leave Pointe Claire 8.20 a.m. daily except Sunday, arriving Montreal 8.55 a.m.

New train will leave Vaudreuil 8.38 a.m. daily except Sunday, arriving Montreal 9.30 a.m.

New train will leave Lachine Wharf 12.15 p.m. Saturdays only, arriving Montreal 12.35 p.m.

Train now leaving Pointe Claire 12.58 p.m. Saturdays only for Montreal, will run daily except Sunday.

New train will leave Lachine Wharf 2.10 p.m. Saturdays only, arriving Montreal 2.30 p.m.

Train now leaving Vaudreuil 1.25 p.m. daily, except Saturday and Sunday, arriving Montreal 2.20 p.m., will leave Vaudreuil 2.40 p.m. daily except Sunday, arriving Montreal 3.40 p.m.

New train will leave Vaudreuil 4.40 p.m. Sundays only, arriving Montreal 5.35 p.m.

Production and Thrift

"To win the war with the decisiveness which will ensure lasting peace, the Empire will require to put forth its full collective power in men and in money. From this viewpoint it is our true policy to augment our financial strength by multiplying our productive exertions and by exercising rigid economy, which reduces to the minimum all expenditures upon luxuries and non-essentials. Only in this way shall we be able to make good the loss caused by the withdrawal of so many of our workers from industrial activities, repair the wastage of the war, and find the funds for its continuance. It cannot be too frequently or too earnestly impressed upon our people that the heaviest burdens of the conflict still lie before us, and that industry and thrift are, for those who remain at home, supreme patriotic duties upon whose faithful fulfilment our success, and consequently our national safety, may ultimately depend."—
SIR THOMAS WHITE, Minister of Finance.

**PRODUCE MORE, SAVE MORE.
MAKE LABOUR EFFICIENT.
SAVE MATERIALS FROM WASTE.
SPEND MONEY WISELY.**

LET US PRODUCE AND SAVE—

The war is now turning on a contest of all forces and resources—men, munitions, food, money. The call to all is to produce more and more. It may be necessary to work harder. The place of those who enlist must be taken by those at home, men and women, old and young. The more we produce the more we can save. Produce more on the farms and in the gardens. Save more and help to win the war.

LET US NOT WASTE OUR LABOUR—

In this war-time all labour should be directly productive or should be assisting in production. Make it as efficient as possible. If your labour is on something that can be postponed, put it off till after the war and make your labour tell now. Making war is the first business of all Canadians. Efficiency in labour is as important as efficiency in fighting.

LET US NOT WASTE MATERIALS—

Begin at home. The larger portion of salaries and wages is spent on the home—food, fuel, light, clothing. Are any of these things being wasted? \$20.00 a year saved from waste in every home in Canada will more than pay the interest on a war debt of \$500,000,000.

LET US SPEND OUR MONEY WISELY—

Are you spending your money to the best advantage? What do you think of extravagance in war time? Tens of thousands of Canadians are daily risking their lives for us at home. Is it not our duty to be careful and economical? Canadian dollars are an important part of the war equipment. Make them tell. Have a War Savings Account. Buy a War Bond.

THE GOVERNMENT OF CANADA

THE DEPARTMENT OF AGRICULTURE

THE DEPARTMENT OF FINANCE

Train will leave Pointe Claire 6.15 p.m. daily except Sundays, arriving Montreal 6.40 p.m.

New train will leave Vaudreuil 9.05 p.m. daily except Sunday, arriving Montreal 10.03 p.m.

New train will leave Pointe Claire 9.50 p.m. Sundays only, arriving Montreal 10.35 p.m.

New train will leave Vaudreuil 10.05 p.m. Sundays only, arriving Montreal 10.55 p.m.

Train now leaving Vaudreuil 10.20 p.m. daily except Sunday, for Montreal, will on Saturdays leave Vaudreuil 10.45 p.m., arriving Montreal 11.45 p.m.

Montreal—St. Hilaire—St. Hyacinthe.

New train will leave Montreal 7.40 a.m. daily except Sunday, arriving St. Hilaire 8.35 a.m.

New train will leave Montreal 1.45 p.m. Saturdays only, arriving St. Hyacinthe 3.15 p.m.

Train now leaving Montreal 5.20 p.m. daily except Sunday, for St. Hyacinthe, will run daily except Saturday and Sunday.

New train will leave St. Hilaire 8.45 a.m. daily except Sunday, arriving Montreal 9.40 a.m.

Train now leaving St. Hyacinthe 2.30 p.m. daily except Sunday, will run daily except Sunday and Saturday.

New train will leave St. Hyacinthe 5.00 p.m. Saturdays only, arriving Montreal 6.15 p.m.

Montreal—St. Paul.

Train now leaving Montreal 5.40 a.m. daily except Sunday, for St. Paul, will be cancelled.

Train now leaving Montreal 7.46 a.m. daily except Sunday, arriving St. Paul 8.00 a.m., will leave Montreal 8.46 a.m., daily, except Sunday, arriving St. Paul 9.00 a.m.

New train will leave Montreal 10.00 a.m. daily except Sunday, arriving St. Paul 10.15 a.m.

Train now leaving St. Paul 6.00 a.m. daily except Sunday for Montreal, will be cancelled.

Train now leaving St. Paul 8.05 a.m. daily except Sunday, arriving Montreal 8.21 a.m., will leave St. Paul 9.05 a.m. daily except Sunday, arriving Montreal 9.21 a.m.

New train will leave St. Paul 10.20 a.m. daily except Sunday, arriving Montreal 10.35 a.m.

EFFECTIVE SATURDAY, MAY 6TH.

Montreal—Hemmingford—Fort Covington—Massena Springs.

New train will leave Montreal 8.05 a.m. Sundays only, arriving Massena Springs, 12.05 p.m.

New train will leave Montreal 8.20 a.m. Sundays only, arriving Hemmingford 10.20 a.m.

New train will leave Montreal 1.47 p.m. Saturdays only, arriving Fort Covington 5.00 p.m.

New train "Special" will leave Montreal 6.30 p.m. Sundays only, arriving Fort Covington 9.45 p.m.

New train "Special" will leave Fort Covington 6.50 a.m. Sundays only, arriving Montreal 10.00 a.m.

New train will leave Massena Springs 4.30 p.m. Sundays only, arriving Montreal 9.35 p.m.

New train will leave Hemmingford 7.15 p.m., Sundays only, arriving Montreal 9.20 p.m.

Montreal—Valleyfield—Cornwall.

New train will leave Montreal 9.10 a.m. Sundays only, arriving Valleyfield 10.55 a.m.

New train will leave Montreal 1.30 p.m. Saturdays only, arriving Cornwall 3.34 p.m.

New train will leave Cornwall 7.05 a.m. Mondays only, arriving Montreal 9.10 a.m.

New train will leave Valleyfield 6.25 p.m. Sundays only, arriving Montreal 8.05 p.m.

Train (No. 6) leaving Toronto 7.15 a.m. daily, Brockville 2.55 p.m., arriving Montreal 7.20 p.m., will on Sundays leave Brockville 4.50 p.m., and arrive Montreal 9.00 p.m.

Lake of the Woods Milling Company, Limited

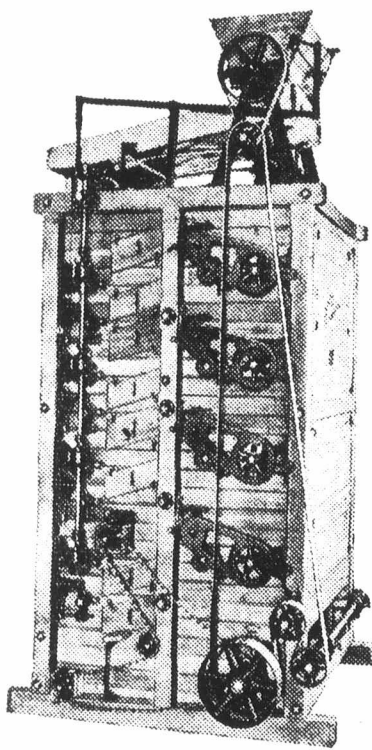
Makers of Manitoba Spring Wheat Flour
Guaranteed

Not Bleached

Not Blended

Mills at Keewatin and Portage La Prairie
Offices: Montreal and Winnipeg, Canada

Cable Address, "Hastings" Montreal
Capacity, 13,700 Barrels Daily



THE RICHARDSON New Type Wheat and Oat Separator The Perfected Machine

is different from every other. Not only in construction but in service rendered. Its many new and valuable improvements place it in a class by itself. We are not the only ones that say it is the best on the market, read these letters:

MOOSE JAW, SASK., Dec. 10th, 1915.
Richardson Grain Separator Co., Minneapolis, Minn.
Gentlemen—We take pleasure in advising you that we are entirely satisfied with the results we have been getting for several years from Richardson Oat Separator. They have fulfilled every representation made for them by the manufacturers.—ROBINHOOD MILLS, LTD. By E.A.A.

TORONTO, ONTARIO, Dec. 23rd, 1915.
Richardson Grain Separator Co., Minneapolis, Minn.
Gentlemen—Please ship to us West Toronto, another No. 3 Richardson Oat Separator the same type as the other two we are now using. We are pleased to advise you the two machines we have, have given us splendid satisfaction.—CAMPBELL FLOUR MILLS, LIMITED. J. W. Cornish, Supl.

MEAFORD, ONTARIO, November 6th, 1915.
Richardson Grain Separator Co., Minneapolis, Minn.
Gentlemen—We are more than satisfied with the results we have had from our Richardson Oat Separators. The results from these machines are simply perfect. Not one grain of oats left with the wheat, and not one grain of wheat left in the oats, leaving nothing more to be desired.—GEORGIAN BAY MILLING & POWER CO. By T. R. Moore, Sec.

THE RICHARDSON GRAIN SEPARATOR COMPANY
15th Avenue, S.E., and Winter Street, MINNEAPOLIS, Minn.
THEODORE KIPP CO. of Winnipeg, Canadian Representative

F. O. M. A. CONVENTION.

The twenty-first annual convention of the Fraternity of Operative Millers of America will be held in St. Louis, Mo., May 29 to June 3, 1916. An exhibition of flour and cereal-mill machinery and of allied lines will be held at the Coliseum in connection

with the convention. All the principal manufacturers of milling machinery and supplies in the United States will exhibit their products, and a small but complete flour mill will be installed for demonstrating purposes. It is expected that some 3,000 millers from United States and Canada, will be in attendance.

EFFECTS OF CYANIDE ON BREAD.

In connection with hydrocyanic acid gas fumigation, inquiries naturally arise as to whether the fumigation has any deleterious effect upon the flour. In order to have positive data upon this subject a member of the staff of the Kansas State Agricultural College, in co-operation with Prof. C. O. Swanson, assistant chemist of the Kansas State Experiment Station, conducted a series of extensive baking tests. In these experiments, four grades of soft winter wheat flour, consisting of a patent, a straight, a clear and a low grade, and three grades of hard winter wheat flour, consisting of a patent, a straight, and a low grade, were used. Twelve-pound samples of each of the grades of soft and hard winter wheat flours were treated with hydrocyanic acid gas at the maximum strength used in flour mills, viz., one pound of potassium cyanide to one thousand cubic feet of space. These treatments were given in an air-tight constant-temperature chamber for a period of twelve hours at a temperature of 90 degrees F.

No Deleterious Effect.

From each of the samples baking tests were made immediately after the fumigation, and were repeated under the same conditions two or three days later, in order that any error that might have entered into the first baking might be checked up. Similar duplicate baking tests from the same samples were made at the end of thirty days and at the end of sixty days. In every baking, under the same conditions and at the same time, one loaf was made from each grade of fumigated flour, and, as a check, one loaf was made from each grade of unfumigated flour. Very careful measurements, calculations and observations were made during the entire baking process and of the finished loaves. Photographs were taken of all the loaves baked, and examination of the measurement tables and photographs showed that the effects of the gas are so small as to be entirely negligible. The finished loaf showed no deleterious effect from fumigation in any of the tests.

Extensions to the plant of the Lake of the Woods Milling Co., Ltd., at Keewatin, Ont., now under way, will increase the flour-milling capacity there by 1,000 bbls. The company has also installed an engine of greater power in the mill at Medicine Hat, Alta.

The Food Value of Flour and Breakfast Foods

Compared With Other Foods Flour Products, Particularly Bread, Most Valuable as Heat Producers and Body Builders.

(By R. HARCOURT, Professor of Chemistry, Ontario Agricultural College, Guelph, Can.)

In the March number of the Journal we dealt with the composition and food value of bread from different grades of flour. We now want to give some data regarding the relative cost of food materials in flour and bread and in some of the common foods on the market. At such a time as this when economy and efficiency are so absolutely necessary, it is almost imperative that we look more closely into the actual cost of nutrients in the common foods we purchase. It is true that in feeding human beings, palatability is a very important factor and because of this the material supplying the cheapest important factor and because of this the material supplying the cheapest nutrients may not be the best for all people; but it may not be out of place to compare the actual amount of food nutrients that can be purchased for any given amount of money in the form of some of our more common foods. A food that is quite palatable to one person may not be to another, but the comparison of their actual value will hold good in general.

The Nutritive Value of Foods.

Generally speaking, foods are valuable for nutritive purposes in proportion as they contain protein, fat, carbohydrates and ash. Some materials such as fruits and green vegetables are more valuable for condimental and medicinal purposes than for the actual amount of nutrients they contain, and are very essential for these purposes. But such substances as meats, flour, bread, breakfast foods, milk, roots, tubers, etc., are valuable as foods in that they contain digestible protein, fat and carbohydrates. The protein such as lean meat, white of egg, gluten of flour, etc., is the only constituent in our foods capable of building up muscle, or lean meat; connective tissue, etc., in the body, and are commonly spoken of as the flesh formers. The fats and carbohydrates are used in the production of heat and of the energy to do work, internal and external. When eaten in larger quantities than is necessary for these purposes, they are stored on the body in the form of fat to be drawn upon as required. If protein is eaten in excess of requirements, it may also be converted into fat; but, as it is the expensive part of a food, it is not economical to use protein foods for this purpose. A properly arranged diet will not provide more protein than is required for doing the work which it alone of all the food constituents is capable of performing. The ash, or mineral part of the food, is required for building bone. A child must have abundance of the flesh-forming and mineral materials to build up muscle and bone. An adult is not adding to the body weight in this manner; its food is used more for the production of heat and energy; consequently, the cheaper carbohydrates may form a larger part of the diet. When we wish to make a close comparison of the value of foods it is evident that we must take into consideration the age of the person using it; the young and growing child requires more protein than the adult. However, for the present we will compare the foods only on a general basis.

The Comparative Caloric Values of Foods.

The best generally accepted basis for making such a comparison is on the ability of the food to furnish heat in the body. This will form a true guide to the nutritive value of the food whenever the diet of which it forms a part supplied a sufficient amount of digestible protein, and this will be the case whenever a person is living on a general mixed diet. Each pound of digestible protein and carbohydrates will produce 1,860 calories of heat in the body, and the same weight of fat will produce 4,220 calories of heat. If then, we calculate the number of heat units that the various breakfast foods, flour, etc., are capable of producing, we find that among these cereal products there is naturally very little difference, and a pound of one is about as valuable as a pound of another. If, however, we wish to include in our comparison the weight of each nutrient and the number of calories of heat that the amount of food we can purchase for any given sum of money will furnish, we get wide differences. To illustrate this, we have prepared a table giving the weight of protein, fat and carbohydrates that one dollar's worth of each of the foods

will provide, and in the last column the calculated number of calories of heat the same amount of food will furnish. This last column will, then, give the relative value of the foods when the diet of which it may form a part furnishes a sufficient amount of protein. Milk, milk products and meats have been added to the list of cereal foods for purposes of comparison.

Table giving number of pounds of Protein, Fat, and Carbohydrates and calories of heat furnished by One Dollar's Worth of Each Food.

| | Price. | Protein. | Fat. | Carbo- hydrates. | Fuel Value. |
|--------------------------|------------------|----------|------|------------------|-------------|
| Milk | 8 cts per qt. | 1.04 | 1.27 | 1.66 | 10,402 |
| Skim-milk | 10 " " gal. | 3.4 | .30 | 5.1 | 17,070 |
| Buttermilk | 10 " " gal. | 3.0 | .50 | 4.8 | 17,362 |
| Butter | 30 " " lb. | .3 | 2.83 | .... | 12,000 |
| Cheese | 20 " " lb. | 1.39 | 1.84 | .... | 10,360 |
| Beef, flank | 12½ " " lb. | 1.34 | 1.51 | .... | 8,924 |
| Beef, sirloin | 24 " " lb. | .69 | .68 | .... | 4,132 |
| Veal, cutlets | 22 " " lb. | .91 | .34 | .... | 3,145 |
| Mutton chops | 20 " " lb. | .67 | 1.44 | .... | 7,328 |
| Ham, cooked | 40 " " lb. | .50 | .56 | .... | 3,304 |
| Eggs | 25 " " doz. | .79 | .56 | .... | 3,853 |
| White bread | 4 " " lb. | 2.10 | .50 | 12.2 | 28,710 |
| Flour | \$3 per cwt. | 3.25 | .03 | 25.3 | 54,057 |
| Rolled oats | 7 lbs. per 25c. | 3.5 | 1.9 | 20.0 | 51,730 |
| Farinas | 6 " " 25c. | 2.3 | .24 | 18.7 | 40,070 |
| Corn meal | 25 cts " 80 ozs. | 1.31 | .25 | 16.36 | 33,921 |
| Roman meal | 25 " " 42 | 1.71 | .29 | 6.76 | 22,753 |
| Shredded Wheat | 25 " " 30 | .86 | .06 | 5.75 | 12,547 |
| Corn Flakes | 10 " " 11 | .37 | .10 | 5.55 | 11,432 |
| Grape Nuts | 15 " " 15 | .71 | .56 | 4.92 | 11,309 |
| Puffed Rice | 15 " " 9 | .28 | .05 | 3.00 | 6,311 |
| Potatoes | 90 " " bag | 2.18 | .10 | 15.6 | 33,492 |
| Beans | 5 " " lb. | 3.90 | .54 | 12.0 | 31,000 |

The price of the foods given in the first column will naturally vary in different places. Some of them, particularly potatoes, may be very much lower than the present market prices; but they serve very well for making a comparison.

Milk contains some carbohydrates as well as the protein and fat, and thus, like the cereal foods, supplies all the constituents required to make a complete food. Cheese is valuable for its fat and protein, while butter contains only fat that has any food value. The meats contain no carbohydrates, which means that they do not supply any of the cheap heat and energy producing materials; consequently, they furnish a small number of calories of heat. It is noticeable also that one dollar spent on meats will not furnish as much protein as if used in purchasing milk, flour bread or rolled oats.

The Digestible Constituents of Foods.

No attempt has been made to calculate the amount of digestible constituents, but it is probable that over 95 per cent of the protein of the milk and meats and about 80 per cent of that of the cereals will be digestible. The fat of cereals will be less digestible than that of the milk and meats, and the sugar of the milk will be almost entirely absorbed, while a considerable proportion of the carbohydrates of the bread and breakfast foods would resist the action of the digestive juices. It is also quite probable that more energy will be required to digest the vegetable foods. However, after allowing for this, it is evident that the cereal foods are a cheap source of protein and carbohydrates and that it is because of the presence of the latter cheap heat-producing materials that this class of food has such a high fuel value.

Their Money Value and Palatability.

Taking the figures as they stand, it is evident that milk furnishes protein and fat more cheaply than the various cuts of the meats. Skim milk and buttermilk, when they can be purchased, are particularly cheap sources of protein, and are probably the cheapest source of this constituent among all our foods. Butter is valuable almost entirely for the fat it contains, and as an energy producer is as cheap as any of the meats, while cheese as a source of protein and fat is very much cheaper than the meats. Thus, one dollar expended on cheese at 20 cents per pound will furnish about twice as much protein, nearly three times as much fat, and about two and one-half times as much energy as the same

amount of money spent on sirloin steak at 24 cents per pound. From the above it is evident that one dollar spent on milk, or any of its products excepting butter, will furnish more protein, or muscle-forming material, and more energy, as indicated in the fuel value column, than fresh meats. Furthermore, there is no reason why the cheaper milk products should not at least partly replace the more expensive meats. There is, however, the whole problem of palatability to contend with and it is very doubtful if there are many people who will give up meats for milk products, unless these are put up in a form that is equally palatable.

Flour Products, Particularly Bread, Stand High.

Flour has been figured at a cost of \$3.00 per hundred pounds and contains about as much protein and more calories of heat than any other food on

the list. The cost of manufacturing it into bread reduces the amount of food constituents purchasable for one dollar, yet the bread stands high. Rolled oats, at seven pounds for twenty-five cents, are almost as cheap a source of food materials as flour while the various wheat farinas, such as Cream of Wheat, come next. All these foods have to be cooked. It may be more trouble and expensive to make bread in the home from the flour than to cook the oat meal and farinas, yet flour and its various products compare very favorably with rolled oats and the farinas.

When we turn to the other breakfast foods, it is at once evident we pay a great deal for the manner in which they are put on the market. Investigations show that they are no more fully digested than the bread and rolled oats. Some of them are ready to serve, and, consequently, there is no trouble or expense incurred in cooking them, but it is evident that we pay dearly for this convenience. Some of them are also sold in packages, but even this does not add to their food value and it is doubtful if any cleaner or better material is obtained in this way than when purchased in bulk.

Flour and bread are often spoken of as being the "staff of life"—and apparently with good reason. Perhaps no food is used in such a variety of ways and is as cheap and satisfying as flour and its products. Oatmeal, or the farinas and milk make a very nutritious and at the same time cheap food; but, considering the variety of ways flour is used, and that milk will fill out and balance the diet, these foods have certainly no advantage over bread and milk.

THE BETTER WAY.

Chas. M. Schwab, congratulated in Pittsburg on a large war order contract which he had just received from one of the warring nations, said:

"Some people call it luck, but they are mistaken. Whatever success I have is due to hard work and not to luck.

"I remember a New York business man who crossed the ocean with me one winter when the whole country was suffering from hard times.

"And you, Mr. Schwab," the New York said, 'are, like the rest of us, I suppose, hoping for better things?'

"No, my friend," I replied. 'No, I am not hoping for better things. I've got my sleeves rolled up and I'm working for them.'—Philadelphia Bulletin.

Flour Millers---Do You Want a Safe Investment

??

Then investigate our latest improved electric machine, and our basic Canadian patents, which cover the process of aging, conditioning or bleaching flour

The Process is Paying Others--It Will Pay You

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8 Wellington St., Glasgow, Scotland

THE TECHNOLOGY OF BREAD-MAKING

including - - The Chemistry and Analytical and Practical Testing of Wheat, Flour, and other Materials employed in Bread-Making and Confectionery

By WILLIAM JAGO and
By WILLIAM C. JAGO
Leading Authorities on the Subject

PRICE \$6.50 PER COPY, Postpaid

Industrial & Educational Press, Limited
600 Read Bldg., Montreal, Canada

Last year the world produced £97,000,000 worth of gold against £92,000,000 in 1914. The Transvaal produced £38,827,000, or 40 per cent of the world's total. The United States came second with £20,300,000, and Australia third with £9,200,000 worth. Other important gold producing countries are Canada, Mexico and Russia.

The Milling of Rice

By F. B. WISE and A. W. BROOMWELL, Grain Standardization Branch, U. S. Department of Agriculture.

The milling of wheat and of rice are fundamentally opposite. In milling wheat the chief product, flour, must be ground very fine; in milling rice the grains must be kept as nearly whole as possible. According to the present commercial conception, an efficient rice mill is one which properly cleans, scours, and polishes the rice grains with a minimum amount of breakage. This fact must be kept in mind in the study of each machine.

Rice Milling and Machinery.

Screens and Fans.—The rough rice from the thrashers, stored in bags in the warehouse or in bulk in the elevator bin of the rice mill, generally is thoroughly screened and fanned in a combination screen blower before being conducted into the hopper of the hulling stones. Chaff, weed seeds, mud lumps, and other foreign substances are thus removed, which, if present, would damage the machinery or introduce impurities into the finished products.

Hulling Stones.—The first real milling operation consists of removing the hulls from the grain between the hulling stones. These latter are a perfected form of those employed in the old mortar-and-pestle mills, and differ little from the stones which are widely used for grinding corn. In a modern rice mill of a daily capacity of 600 barrels of 162 pounds each, two sets of stones are generally employed. Since the revolving motion of the stones tends to keep the grains on end and all the grains in a lot of rice are not uniform in length, it is found most economical to adjust the stones at a sufficient distance apart so that the best and longest grains are not broken and at the same time a maximum percentage of rough rice is hulled. If the stones are set too close together, it is also found that the germs are removed from some of the grains instead of remaining to be scoured off with the bran. The average results of the mechanical analysis of several samples of rice of the Honduras type collected directly from the stones are as follows: Hulled rice, 65.5 per cent; rough rice, 15.3 per cent; and hulls, 19.2 per cent.

Fans.—From the stones the mixture of hulled rice, rough rice, and hulls is elevated to the upper mill floor to be fanned. The fanning device is very similar in this case to the one used in removing the dust and weed seeds from the original rough rice. The same forced air that separates the hulls from the rice usually takes them to the fuel house near the boiler room, where they are eventually used as fuel for the mill, or, if they are not to be burned, to a grinding machine, where they are prepared for the market. Practically all rice mills make use of the hulls as a source of power for heating the boilers. Analyses of many samples of the Honduras type of rice taken from the fans show how efficiently the loose hulls are removed in this machine. The average results are as follows: Hulled rice, 81.9 per cent; rough rice, 17.2 per cent; and hulls, 0.9 per cent.

Paddy Machine.—The paddy machine is a device designed to separate the rough from the clean rice in the mixture, which has been fanned practically free from hulls. Essentially it consists of a large inclined mechanically operated shaker, the surface of which is interrupted at regular intervals with small vertical metallic plates which divide the rice and aid gravity in making the separation. As the shaking proceeds, the rough rice grains, being lighter, gradually move upward from the centre feed and pass over the high side of the machine into a trough, while the heavier, hulled grains are collected under the lower side. The separation may be varied by changing the speed of shaking, the angle of incline of the platform, or the rapidity of the feed. Four to six paddy machines are generally employed in a mill of 600 barrels daily capacity.

The rice from the rough side of the paddy machines is returned to a pair of small stones which are set close together, where the short kernels are hulled and then combined with the rice from the first stones. The rice from the clean side is now practically free from hulls, but the grains retain the thin brown bran layer as well as the eye, or germ, intact.

Hullers.—The name "huller," given to the next machine in the milling process, is very misleading, because in reality this machine is used for removing the bran layer from the grain which has been hulled by the stones and freed from rough rice by the paddy machine. The word "huller" is universally understood in this connection in the rice industry, and hereafter when the word appears in this article it will designate the machine which receives the rice

from the paddy machine and scours off the outer bran layers. The name was probably inherited from the similar machine, the plantation huller already described, which removed hulls as well as bran. The modern huller is somewhat smaller but otherwise very similar to that already described, and six or seven machines are necessary in a 600-barrel mill. The grain from the clean-rice side of the paddy machine is conducted to the feed hopper of the huller and thence passes into the cavity of the machine. A part of the bran layer on the outside of the grain and most of the germ are removed, largely by scouring between the rough inside iron walls of the tapering cylinder and the grooved surface of the rapidly revolving core.

Bran Reel.—The bran reel receives the product from the hullers and separates the rice from the powdery bran. This reel is composed of a large octagonal framework covered with fine wire screen, the square meshes of which are 14 per linear inch. The reel is set on a slight incline and its slow revolving motion takes the rice, which enters at the higher end, through its length 9 feet in about 5 minutes. As the reel revolves, the rice constantly falls from side to side and forces the bran through the wire covering.

Pearling Cone.—The pearling cone, which has recently been introduced in many mills to supplement the work of the hullers, is essentially the same machine that is used in the pearling of barley. The principal working part of the machine is a frustrum of a cone covered with a composition stone; this is surrounded by a sieve mantle composed of close-meshed heavy iron wire. The rice is fed from above between the stone and the sieve and is thoroughly rubbed before passing out at the bottom. The severity of the scouring is regulated by raising or lowering the stone, thus decreasing or increasing its distance from the wire screen. The best milling practice now approves the use of the pearling cone, because with its use the grain may be more gradually scoured than where the hullers alone are used and the breakage can also be kept lower. The loosely adhering bran resulting from the action of the pearling cone is removed from the rice in a bran reel. This bran is generally combined with that removed by the hullers, but is occasionally mixed with the polish from the brush or even bagged and sold locally as rice meal.

Brush and Brewer's Reel.—The brush is the last scouring machine in the milling process. On account of the rapid feed necessary in securing the best results from the brush, the rice from the bran reel following the pearling cone is stored in large bins situated above the brush. This latter machine has already been described as the polisher of the mortar-and-pestle mill. In the modern mill it has been found advantageous to substitute pigskin for moose hide or sheepskin and to increase the speed of the machine. The very thin layer of bran which is rubbed off is forced through the surrounding screen as a light-brown powder, called rice polish. The rice kernel at this point is reduced approximately 10 per cent of its weight after the removal of the hull. As a rule, when a coating of glucose and talc is to be applied later in the process, the rice is not subjected to such a severe scouring in the brush as when it is to be sold as uncoated rice. From the brush the rice, containing all sizes from the most nearly perfect whole grains to the smallest particles, is passed into the brewer's reel for the first step in grading. This reel differs from that which removes the bran only in that the wire screen covering has 10 meshes instead of 14 to the inch in each direction. The brewer's rice which passes through the screen of this reel is never coated with glucose and talc, since its value is small and not increased by such a process involving extra expense.

Trumbles.—When the rice is to be coated with glucose and talc, as it generally done, it is trans-

FOR SALE

ORCHARD MILL.

The Executors of the Estate of John Swanston offer for sale the mill property known as "The Orchard Mill," in the County of Grey. The mill is situated on the Garafra Road midway between the towns of Mount Forest and Durham. There is a long established trade in a good farming community. A good chopping business is done the year round. Never failing water power. Cement dam. Comfortable dwelling house. Title perfect. For further particulars apply to J. P. Telford, Durham, Ont., Solicitor for the Executors.

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ferred directly from the brewer's reel to the trumble for this purpose. The trumble is a cylinder about 9 feet long and 4 feet in diameter set on an incline of about 15 degrees from the horizontal and revolved by a gearing on the outside. It is often provided with a steam pipe through its axis for raising the temperature of the rice, to effect a higher luster in cold weather. The rice, together with the coating materials, is introduced at the higher end of the trumble, and the shiny appearance is produced on the grain as it moves slowly round and round and ultimately pours out at the lower end. To the inside surfaces of the trumble are fixed several small strips of wood, which carry the rice up the side and let it fall again as the cylinder revolves, thereby increasing the friction on the rice grains. Glucose of a good quality, which is generally heated and mixed with a small proportion of water, is fed from a tank in a constant small stream upon the rice as it enters the trumble. Talc is introduced at the same place by means of a screw feed connected with a supply box. The quantity of each coating material added is regulated by the miller to suit the quality of the particular lot of rice being milled. No other coating materials than those mentioned have been observed in use in the mills of the United States. In some cases a second trumble without glucose and talc feeds supplements the work of the first, and it is generally conceded that the extra friction gives to the rice a brighter and more desirable luster.

Grading the Rice.

Grading Machines.—From this stage to the ultimate bagging the problems met with pertain to the grading of the clean rice. However, if the rice is damaged or very inferior because of the presence of red rice, it is often bagged ungraded and sold as "line" rice. The shaker frame, which was the earliest device used for grading rice, is simply a framework, mechanically operated, which supports a set of inclined flat metal screens. These screens are removable at will and are numbered according to the sizes of the round perforations in them. The unit of measure is a sixty-fourth of an inch hence, a No. 8 screen has holes eight sixty-fourths of an inch in diameter. Shaker frames are still used in practically all mills, to aid in the grading work. In most cases a considerable proportion of the "fancy head" grade is removed on the screens before the rice goes to the cockle cylinder.

Head Grade.—If the quality of the rice being milled is exceptionally good an extra fancy head grade is made, which consists of the largest and most nearly perfect grains of the lot, with only a small percentage of broken particles. This commercial grade, if of the Honduras type, consists of that rice which does not pass through a No. 8½ screen on the shaker frame, and, if Japan, a No. 7½ screen. In passing the rice over the screens of the shaker frame the small quantity of finely broken rice which failed of separation in the brewer's reel or resulted from a slight breakage with the trumbles is removed through a No. 5½ screen and combined with other brewer's rice.

Grading Reels.—Long, revolving, cylindrical grading reels replaced in some cases the earlier shaker frames. Such a reel consisted of a framework divided equally into four sections, each of which was covered with a wire screen. The screens, which could be replaced, were of various-sized mesh, and by mak-

Empire Trade After the War

Views of a Great Ship Owning Community.

(The following are extracts from a preface to The Port of Hull Annual for 1916 by Councillor Wm. C. Dawson, J. P., Sheriff of the City and County of Kingston-upon-Hull and Chairman of the Kingston-upon-Hull Education Committee).

"Questions of international policy are of the most vital importance to the manufacturer, the merchant, and the shipowner, but to appreciate events in their true proportions and perspective, all parochial views must be put far from us. The development of the port and the trade of Hull must be considered as part of a great Imperial, and, indeed, a complex international question.

"A nation which has created a magnificent army of several millions of men in a few short months out of a peace-loving population, must mobilize its capital, and organize its credit, in the interests of a united Empire. Without embarking upon schemes of adventurous finance, the great banks of the home country and the Colonies by effective co-operation, backed by Government direction and guarantees, can do, and must do, much more to stimulate, to foster, and to direct into the best channels, the capital required for the development of the resources of this country and of the British Dominions beyond the seas. Increased elasticity in banking practice and complete cohesion between the banks of the Empire, insuring greater fluidity of capital, would be a much more powerful factor in increasing trade than protective tariffs, be they never so skilfully framed. The methods pursued by the German Banks in Turkey, Asia Minor and the Argentine are worthy of very serious consideration. In developing the material resources of the Empire, we ought to direct to the Colonies the surplus population of the mother country. What a difference it would have made in the present combat if the British capital invested in the countries with which we are now at war had been employed in the development of the resources of Australia, New Zealand, and Canada. Is it not possible that the man-power of the Empire would have been so great as to have made war impossible to the Kaiser and his myrmidons?

"The fiscal policy of this country must be reconsidered, reconsidered at an Imperial Council, at which all the Colonies are represented, reconsidered not in the light of settled convictions supported by the muttered shibboleths of Free Trade or of Tariff Reformers, reconsidered not by sections of the Empire as independent units, but as one united indivisible Empire determined to promote the safety and well-being of all people who dwell under our flag. Two points should always be remembered. First, taxation either direct or indirect for Imperial purposes can only be imposed on any Colony by the Colony concerned. Proposals must never be brought forward similar to those which a century ago cost us the United States of America. To re-enact the Naviga-

tion laws whereby British cargoes must be carried only in British owned ships, would in effect impose an indirect tax on the Colonies. They wish to convey their exports to British markets, and to import our goods in exchange at the lowest rates. To exclude from the Colonial carrying trade all foreign owned ships must raise freights both against ourselves and them. Secondly, if we are to remain the free market for gold and commodities (which in the main has given us the carrying trade of the world, and made us its financial clearing house) we must not, unless we are satisfied we are receiving adequate compensating advantages, impose any restrictions that will rob us of that position of pre-eminence and tend to shift the financial centre of the world elsewhere. To ensure the solidarity and stability of the Empire is, of course, immensely more important than the continuance of our financial prosperity, but these are not alternatives. With wise statesmanship we may secure both."

ing substitutions the character of the separation could be fairly well controlled. Beneath each section was a trough to receive the rice which passed through the screen of that section. The grading reels are now used only to assist the more efficient cockle cylinder described in the following paragraph.

The Cockle Cylinder is by far the most valuable and widely used device for grading rice. It is a form of the machine extensively employed in removing cockle from wheat previous to its milling, and has been in use for grading rice for about 10 or 12 years. It consists of a metal cylinder, the inside surface of which contains indentations stamped or bored in the metal. The cylinder is set on an incline and propelled from the outside, and in action revolves around a supporting stationary axle, to which is also fastened an adjustable curved metal apron. The apron extends nearly across the diameter of the cylinder and throughout its entire length. The rice to be graded is introduced on the floor of the cylinder at its upper end. As the cylinder revolves, the smallest particles of rice fall into the depressions, are carried upward through a part of a revolution, and when above the suspended apron, they fall upon it. Since the apron receives all rice particles which are carried by the surrounding cylinder above its edge, the size separation of the rice may be changed at will by adjusting the position of the apron on the axle and thus raising or lowering the edge of the apron. Each cylinder is designated according to the diameter of its depressions, which, as in the case of the flat metal screens, are expressed in terms of sixty-fourths of an inch.

WESTERN GRAIN INSPECTIONS.

The inspection of grain at Winnipeg and other points in the Western Dominion during the seven months ended March 31, 1916, has broken all records of previous years amounting to 232,434 cars, compared with the previous high of 158,938 cars in 1913-14, and 100,572 cars during the corresponding period in 1914-15. The following is a recapitulation of the inspections during the seven months ended March 31, 1916:

| | | | |
|----------------------|------------|-------------|-------------|
| Wheat, Cars .. | 17,668 | 193,250 | 78,702 |
| Bush | 21,201,600 | 231,900,000 | 88,539,750 |
| Oats, Cars | 4,186 | 30,274 | 15,395 |
| Bush | 8,581,300 | 60,261,700 | 29,250,500 |
| Barley, Cars .. | 492 | 6,466 | 3,160 |
| Bush | 664,200 | 8,729,100 | 4,108,000 |
| Flaxseed, Cars . | 409 | 2,124 | 3,064 |
| Bush | 470,350 | 2,442,600 | 3,140,600 |
| Rye, Cars | 12 | 111 | 118 |
| Bush | 12,000 | 111,000 | 118,000 |
| Screenings, Cars | 30 | 208 | 133 |
| Bush | 30,000 | 208,000 | 133,000 |
| Speltz, cars . . . . | ..... | 1 | ..... |
| Total grain | | | |
| Cars | 22,797 | 232,434 | 100,572 |
| Bush | 30,959,450 | 305,452,400 | 125,289,850 |

THE FARMER IS THE BIG PROSPECT.

A man whose business it is to prepare lists for automobile companies says that 70 per cent of the automobiles sold are purchased by farmers. This reinforces the signs from every side (a New York Life official says) that right now the farmer is the logical prospect for a great volume of life insurance.

In most mills three cockle cylinders, Nos. 10, 12, and 14, are set up in the same framework and are operated together, and frequently two such sets are placed side by side in a double frame. It is the customary practice in milling the Honduras type of rice to conduct the ungraded rice from the shaker frame to the floor of cockle cylinder No. 10, which takes out the smallest particles and sends the remainder to cylinder No. 12 below. Broken grains of the next larger size are separated on the apron of cylinder No. 12 and the remainder goes down to cylinder No. 14, which performs its work in a similar way. The rice from the apron in cylinder No. 10 is ordinarily bagged as the screenings grade of clean rice, the particles from the aprons of Nos. 12 and 14 are mixed and sold as the second head grade, and the remainder from the floor of No. 14 constitutes the fancy head grade. Each separated grade is conducted through a wooden chute to the first floor of the mill, where it is packed for the market.

The above-described separations apply only to the Honduras type of rice. The Japan type is sorted in a similar way, except that all broken particles separated by the cockle cylinders are ordinarily mixed and sold as Japan type screenings, thus making three grades instead of four.

Weighing and bagging machines.—All clean rice, except the brewer's rice and a small amount which is packed in cartons, is shipped from the mill in closely woven burlap bags, or pockets, of 100 pounds each. In many mills automatic machines for weighing the rice and sewing the filled bags have been installed with satisfactory results.

Wants to Build Ships

President Thomas Cantley, of the Nova Scotia Steel and Coal Company recently addressed a meeting of the Montreal members of the Canadian Manufacturers Association on the question of steel ship building in Canada. Mr. Cantley spoke in part as follows:

"Marine transportation at the present time is a matter of vital interest both to Canada and the Empire. The losses of British merchant shipping tonnage during the past twenty months of this war have amounted to more than two and a quarter million tons — the losses during several months averaging over two steamers per day. We have recently lost more shipping in one week than the shipbuilding resources of Great Britain produce in three months. These losses, coupled with the transportation demands of Britain and the Allies, and the inevitable law of supply and demand, have caused freight rates and the value of ships to advance from five to fifteen times over those formerly paid. So long as the present war and the transportation problems arising out of it continue, no relief can be expected from outside sources.

"On the Great Lakes Canadian shipping amounts to only a small fraction of the lake tonnage. On the ocean Canadian ships carry less than one-tenth of the produce sent out of Canadian ports, while very large quantities of other Canadian products pass through American ports. It is estimated that before the war Canadians were paying over \$50,000,000 yearly in ocean freights, almost all of which went into the pockets of foreign ship owners.

Overseas Trade Expansion.

"If we assume that there will be a very large volume of immigration to Canada after the war, doubtless a considerable proportion of this influx will settle on the land, principally in the West, and at a reasonable time thereafter there should and undoubtedly will be a very large increase in our exports of agricultural products. Of the four to five hundred thousand Canadians returning from the battle-front when the enemy is defeated, a large number both by previous training and inclination will expect to find employment in the various workshops of the Dominion.

"The success of our railway transportation system has been due largely to the vigorous and resolute policy of our governments in the matter of railway development, which contributed the Intercolonial Railway, and latterly the Transcontinental system—our investment in which exceeds \$200,000,000. Public aid has been given to private railway systems to an even greater extent, and guarantees of bonds have been made to an amount closely approaching \$300,000,000.

"As regards marine transportation we have had no such policy. We have constructed a canal system that since Confederation has cost us over \$100,000,000, but the canals so constructed are open to our competitors and over four-fifths of the traffic passing through the Canadian canals originates in the United States, and less than one-third of the ships using the canals are Canadian.

"In addition to the expenditure on canals, Canada has spent something like \$150,000,000 in aids to navigation on the Atlantic and Pacific coasts and on our inland waters.

Canadian Shipbuilding.

"It is true that we have a few Canadian shipyards equipped for the building of steel vessels, but the

peculiar fact is that these plants are practically all on the Great Lakes, and none are on the Atlantic seaboard. Those that we have, Collingwood, Toronto and Port Arthur, have done good work and exhibited great enterprise in the face of little encouragement, and both Collingwood and Toronto have turned out large vessels, probably in every respect equal to similar tonnage constructed either in Great Britain or elsewhere.

"A generation ago wooden shipbuilding was a leading industry in the Maritime Provinces and Quebec. The position of the industry at that time as compared with to-day is shown by the following figures:

"In 1874 190,756 tons were built, with a total of 1,158,363 tons, which had dropped by 1914 to 43,346 tons built and 932,422 tons registered.

Industrial Policy.

"Personally, I have but little faith in the success of any scheme for providing greater or more efficient transportation either through Government ownership, time charter or operation of a tramp steamer fleet, or by any other form of attempted control of ocean traffic by the Government. On the other hand the Dominion would be justified in making some considerable expenditure by way of aiding in the development of Canadian shipbuilding at the present time. The iron and steel industry of Canada could never have reached the present output capacity save for the fostering influence of the combination of tariff protection and bounty, and I take it we have reached the position in Canada where even the most out and out Free Trader will admit that any sacrifice made by Canada to establish the steel industry has been fully warranted by the experience of the past eighteen months, for I assume that it will be agreed that if the iron and steel industry had not been developed in this country as it was no munition business would have been possible in Canada to-day, and in that case the financial situation of the Dominion and the industrial condition in the large manufacturing centres would be quite different from what they are at this moment. (Applause).

"I am confident that when a return is made by the Minister of Finance it will be shown that the tax on the excess profits collected from munition and iron and steel manufacturers, will, before the war is ended, equal the entire total bounties paid out by the Dominion Government to iron and steel manufacturers from the inception of that policy in 1892 until the date when the bounties finally ceased.

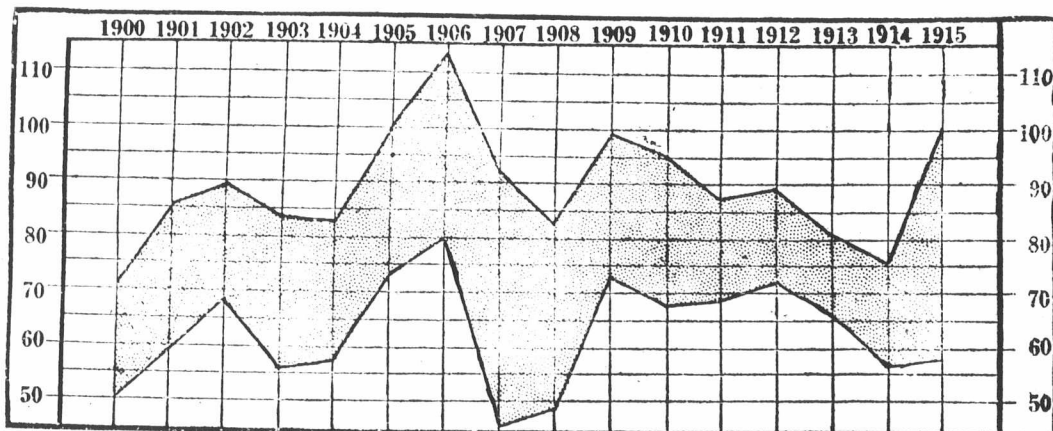
Assistance is Required.

"Steel shipbuilding on a comprehensive scale can be developed if the Government of Canada is prepared to grapple with the matter in a broad and statesmanlike way. The measure of assistance which the country should extend to the shipbuilding industry is a matter for Government decision. The present bounty is entirely ineffective and out of date.

SPRING.

April weather is proverbial, but the sap is rising and veteran operators think the Stock Exchange barometer will soon be moving up in sympathy. Psychic influence of the season seems still to count for something notwithstanding the innumerable changes that have come over the Street since Dan Drew coined his famous saying, "Don't be short of the market when the sap is running."—Adams, in Boston News Bureau.

SIXTEEN YEARS OF MARKET FLUCTUATIONS.



The chart shows the absolute high and low in Wall Street of fifty leading stocks, half railroad and half industrial, in each year without regard to the dates on which the high and low of individual issues was made. The range is thus somewhat wider than that shown in the record of daily and weekly averages presented on other pages.—New York Annalist.

Textile Mills

throughout Canada are working overtime on military and regular business

Four mills are now under construction. Several plants have resumed operations during the past few months. A number of concerns have recently doubled the capacity of their plants. Practically all the mills are installing new equipment as quickly as it can be secured.

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TUNGSTEN.

To make high-speed tools necessary in manufacturing shells, rifles and big guns, as well as other war implements, only one kind of steel can be employed, that alloyed with tungsten which will retain a cutting edge at over 1,200 degrees Fahrenheit, or while red hot.

As a result of demand for munitions, the demand for this class of steel has grown by leaps and bounds. Average tungsten content of such steel is about 13 per cent.

And there is only a limited supply of tungsten commercially available in the world. It is no wonder, then, that price of tungsten has advanced from \$5.50 or thereabouts in normal times to \$15 to \$30 to-day. This quotation is for a unit containing 20 pounds of pure tungsten. In other words, tungsten has advanced from under \$600 to nearly \$8,000 per short ton.

Before the war world production of tungsten was probably 6,000 tons a year. Definite figures are impossible as leading authorities disagree and there are no reliable records available. Of this total more than half came from British colonies, but was concentrated in Germany. America produced 1,000 tons, approximately, partly from Mexican ores and partly from ores obtained in Boulder county, Colo. Tungsten ores are found in Africa, Australia, Burma, Bolivia, Peru, Argentina, Mexico, Japan and other countries, and in several states in the U. S. Most of the latter ores, however, cannot be worked at a profit at peace prices.

A CURIOUS DEVELOPMENT.

Why Germany, numerically weaker than her enemies, should assume the offensive at all and accept the odds that lie against that part of modern warfare, in a theatre where those odds would be their highest and the total cost heart-breaking — that is the most important question. Time to Germany undoubtedly is more precious than material. Time is more than precious. It is vital. To gain time, she went through Belgium. The longer, harder way lay past Verdun. Well, the short and easy way was no thoroughfare to Paris, and here the Germans are, after eighteen months of precious time elapsed, battering at Verdun.—New York Times.

The firm of A. E. Ames and Co., of Toronto, will carry on business under the old name but minus the services of Mr. Thomas Bradshaw, who was recently appointed Toronto's City Treasurer. The present partners are A. E. Ames, H. T. Tudhope, F. J. Coombs and C. E. Abbs.

Week

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COMMODITY MARKETS

Week's Wholesale Review

The holidays affected the volume of business last week to some extent as many of the travellers were off the road, but wholesale houses generally report a good movement for the season. The warmer weather has stimulated inquiry in spring and summer dry goods and an increasing number of repeats are reported. Fall placing business is also holding fair, and in view of the fact that wholesalers have purchased very heavily in fall and winter lines the volume of business is expected to be larger than for the past two years.

The hardware trade is fairly active, the paint and oil business are doing a rushing trade. The scarcity of supplies keeps the leather market very firm under an active inquiry. The hide market is also very firm with a further advance reported in calfskins. The boot and shoe business is showing more activity and prices rule high in sympathy with the high prices paid for the raw material. Some of the more fashionable grades of ladies boots are selling in a retail way as high as twenty dollars per pair.

Refined sugars were again advance 10 cents per 100 pounds by the inland refineries, thereby making a total advance of \$1.10 per 100 pounds since the beginning of the year, and an advance of \$1.10 over prices a year ago. The movement in groceries is well maintained. Dairy produce prices are high due to the extra holiday demand, but a drop is expected.

A feature of the week's trade was the record advance in live stock prices at the Montreal sales. Cattle are ranging very high and other lines are at record levels. Export demand is heavy and it is stated that our supplies are becoming low.

Regarding Western trade, Dun's Review says: "In the Far West and Northwest progress continues, and all indications point to a large spring and summer trade. Winnipeg reports unusually favorable prospects for this period. There is a steadily increasing demand for the principal commodities, notably farm supplies, agricultural implements, dry goods, clothing, footwear, groceries and provisions, and sales, as a rule, in all classes of merchandise make quite a satisfactory comparison with those at this time in the best preceding years. Retail trade is improving at Edmonton, with more settled weather, while wholesalers report a seasonable volume of business, with further improvement from now on expected. Although the backward spring has been an adverse feature at Regina, general trade conditions are improving and wholesalers look for a steady demand for most kinds of merchandise from now on. Business at Saskatoon shows substantial expansion, there being a brisk demand for farm implements, dry goods, groceries and other staples, and merchants regard prospects as being very favorable. The movement of merchandise at Calgary is fully up to normal, with demand in numerous lines decidedly active, and expectations are general that business in all departments will continue to improve. Business at Vancouver compares favorably in volume with that of last year at this time, and the outlook for spring trade appears to be unusually bright."

DAIRY PRODUCE.

BUTTER: There is an easier feeling in the butter market notwithstanding the large demand. New butter is now coming in quite freely, with expectations of lower prices. The chief feature of the trade was the opening of the auction sales for the season 1916 by the Quebec Agricultural Co-operative Society, at which a round lot of new-milk finest creamery was sold at 31c and a lot of fine at 30c per lb. The feeling in the country last Saturday was weak, and the offerings on the board at Cowansville were sold at 30½c per lb., which is a decline of 1½c to 1¼c per lb. as compared with a week ago, and 1½c to 1¼c with a year ago. The first session of the St. Hyacinthe board for the season 1916 was held on Saturday, April 22, and the butter offered sold at 30c and the cheese at 17¼c per lb.

CHEESE: The demand for new cheese continues good, but the uncertainty of obtaining ocean freight makes speculative business out of the question. Freight rates are very high, ranging from \$2.00 to \$2.50 per 100 lbs.

Current quotations follow:

| | | |
|-----------------------------------|-------|-------|
| Butter— | | |
| Fresh Creamery | 0.35 | 0.35½ |
| Storage | 0.34 | 0.34½ |
| Seconds | 0.32 | 0.32½ |
| Dairy Butter | 0.28 | 0.30 |
| City Selling Prices, to grocers:— | | |
| Choice Creamery Solids | 0.35 | 0.35½ |
| Do., Prints | 0.34 | 0.34½ |
| No. 2 Creamery Solids | 0.32 | 0.32½ |
| Do., Prints | 0.31 | 0.31½ |
| Choice Dairy Prints | 0.32 | 0.32½ |
| Do., Rolls | 0.31 | 0.31½ |
| Cooking Butter | 0.29 | 0.30 |
| Cheese— | | |
| Finest Eastern | 0.18 | 0.18½ |
| Finest Western | 0.18 | 0.18 |
| Fine Cheese | 0.17½ | 0.18 |
| Undergrades | 0.17½ | 0.18½ |

COUNTRY PRODUCE.

EGGS: This market is a little easier, largely on account of the Easter trade, there being a drop of over 1 cent per dozen, with lower prices expected. Everything depends on the amount of supplies coming forward. Owing to the high prices of all meats, eggs are the cheapest food product at the present time.

POULTRY: There has been a very brisk trade in all kinds of game and poultry during the past week owing to the Easter and Jewish holiday trade.

MAPLE PRODUCTS: Prices of maple syrup and sugar continue steady, with a good demand for supplies, which are coming forward from country points in sufficient quantities to take care of all requirements.

Current wholesale prices follow:

| | | |
|---------------------------------------|-------|------|
| Eggs— | | |
| New Laid | 0.25 | 0.26 |
| Honey:— | | |
| Buckwheat, in combs | 0.12 | 0.13 |
| Buckwheat, extracted | 0.10½ | 0.11 |
| Beans:— | | |
| 3-lb. pickers, carlots, bush. | 4.00 | 4.25 |
| 3 lb. pickers, do. | 3.95 | 4.15 |
| Undergrades, bus. | 3.60 | 3.70 |
| Potatoes:— | | |
| Green Mountains, per bag, car lots | 1.75 | 1.80 |
| Job lots, ex store, per bag | 1.90 | 1.95 |
| Poultry:— | | |
| Frozen stock— | | |
| Turkeys | 0.28 | 0.30 |
| Fowl, large | 0.19 | 0.20 |
| Fowl, small | 0.17 | 0.18 |
| Ducks | 0.20 | 0.23 |
| Geese | 0.16 | 0.17 |
| Roasting chickens, ord. | 0.21 | 0.23 |
| Chickens, milk fed | 0.24 | 0.25 |
| Capons | 0.28 | 0.30 |
| Spring broilers, dressed, pair .. | 1.15 | 1.25 |
| Squabs, Phila., pr. | 0.85 | 0.90 |
| Poultry—Live:— | | |
| Fowl, 5 lbs. and over | 0.20 | 0.23 |
| Fowl, small | 0.18 | 0.19 |
| Turkeys, cocks | 0.20 | 0.21 |
| Do., hens | 0.23 | 0.24 |
| Maple Products:— | | |
| Pure maple syrup, 8-lb. tins | 0.85 | 0.90 |
| Pure maple syrup, 10-lb. tins | 1.00 | 1.10 |
| Extra choice syrup, 13-lb. tins | 1.25 | 1.30 |
| Pure maple sugar, per lb. | 0.12 | 0.14 |

CHEESE EXPORTS.

The following are the shipments of cheese from Portland and St. John, N.B., which arrived on the other side for the week ending April 20, 1916.

| To | Thro. | Total. |
|--|-------|-----------|
| South Africa | 2,093 | 2,093 |
| Same week last year | 9,698 | 9,698 |
| Total exports, May 1, 1915, to April 20, 1916, boxes | | 2,152,415 |
| Do. corres. period last year | | 358,299 |

MONTREAL PRODUCE RECEIPTS.

The receipts of the principal commodities at Montreal for the past two weeks follow:

| | Week end. | |
|------------------------|-----------|-----------|
| | April 15. | April 22. |
| Oats, bushels | 408,544 | 386,205 |
| Wheat, bushels | 466,802 | 689,364 |
| Barley, bushels | 31,808 | 12,688 |
| Flour, barrels | 47,766 | 39,619 |
| Eggs, cases | 15,858 | 17,871 |
| Butter, packages | 5,134 | 4,890 |
| Cheese, boxes | 3,848 | 5,229 |
| Potatoes, bags | 7,720 | 8,843 |
| Hay, bales | 11,901 | 13,972 |

LIVE STOCK.

Record prices obtained at the local live stock sales last week. Cattle were in fair supply, and of better quality than of late, and prices scored a sharp advance on the brisk bidding. On Monday one carload of 21 cattle weighing 27,415 pounds, was sold at \$9.15 per 100 pounds, and prices generally ruled from 40c to 50c above the previous week's quotations. Prices held steady at the Wednesday sales.

Sheep and lambs continue scarce, but the demand is good for what few are offered, and prices are high. Hogs scored another advance to \$12.25 per 100 lbs. at the Monday sales, prices ranging from \$11.75 to \$12.25. The export demand is heavy, and it is expected that present prices will hold for a period.

The arrivals of calves continue in large quantities, but the demand is good, and prices held steady at from \$6 to \$7 a head.

Current quotations are as follows:

| | Per cwt. |
|------------------------------------|------------------|
| Butcher steers, best | \$8.90 to \$9.15 |
| Do., good | 8.60 to 8.85 |
| Do., fair | 8.25 to 8.50 |
| Do., medium | 7.90 to 8.15 |
| Do., rough | 7.50 to 7.75 |
| Butcher bulls, best | 8.00 to 8.25 |
| Do., medium | 7.50 to 7.75 |
| Do., common | 7.00 to 7.25 |
| Canning bulls | 4.25 to 5.25 |
| Butcher cows, best | 7.50 to 7.75 |
| Do., good | 7.10 to 7.30 |
| Do., medium | 6.65 to 7.00 |
| Do., common | 6.15 to 6.40 |
| Do., canners | 3.25 to 4.00 |
| Sheep | 6.00 to 8.50 |
| Lambs | 9.00 to 12.00 |
| Hogs, selects, weighed off cars .. | 12.00 to 12.25 |
| Do., roughs and mixed lots .. | 11.25 to 11.75 |
| Do., common | 11.00 |
| Sows | 9.35 to 9.90 |
| Calves, milk fed | 8.00 to 9.00 |

FISH AND OYSTERS.

Lent is now over, which will cause a general readjustment in the fish trade. The supply of haddock and cod is very fair, also fresh halibut, there being no frozen halibut left on the market. The season for fresh dore is over, but there are still a few frozen fish left, which will be sufficient until the season opens again on May 15. There has been a fair supply of river fish, such as carp, pike and perch in bunches, and dealers look for a bigger supply this week. The sale of oysters has dropped off very considerably, and as the weather gets warmer the demand will practically cease.

| | |
|---|------|
| Fresh:— | |
| Haddock, per lb. | 0.06 |
| Steak Codfish, per lb. | 0.07 |
| Carp, per lb. | 0.10 |
| Lobsters, live, per lb. | 0.25 |
| Salmon, Red Cohoes, or Silvers, Round per lb. | 0.11 |
| Salmon, Red—Cohoes or Silvers, Dressed and Headless, per lb. | 0.12 |
| Halibut, medium, per lb. | 0.16 |
| Herrings, medium, 60 lb. per 100 count | 2.50 |
| Whitefish | 0.14 |
| Pike | 0.09 |
| Frozen:— | |
| Dore | 0.10 |
| Whitefish | 0.11 |
| Mackerel | 0.09 |
| Oysters:— | |
| Standard Solid Meats—No water. | |
| No. 5 Can (containing 3 wine gals.) | 4.25 |
| Ordinary Bulk Oysters, Standards, per Imp. gallon | 1.40 |
| Ordinary Do., Selects, per Imp. gallon .. | 1.70 |
| Shell Oysters, Cape Cods in large barrels .. | 8.00 |

RECEIPTS OF BUTTER, CHEESE & EGGS.

The following table shows the receipts of butter, cheese and eggs in Montreal for the week ended April 22nd, 1916, with comparisons:

| Total receipts corresponding | | | |
|---|---------|-----------|---------|
| | Butter, | Cheese, | Eggs, |
| | pkgs. | cases. | boxes. |
| Week ended April 22, 1916 | 4,890 | 5,229 | 17,871 |
| Week ended April 15, 1916 | 5,134 | 3,848 | 15,858 |
| Week ended April 24, 1915 | 4,962 | 3,494 | 20,862 |
| Total receipts May 1, 1915, to date. | | | |
| 1915, to date. | 413,529 | 2,010,826 | 623,205 |
| period last year. | 400,337 | 1,537,620 | 468,267 |

PROVISIONS.

The prices of all pork products are ruling high at present, with no expectation of a drop in price. There has been a heavy export demand, with good local business passing.

Current prices are as follows:

| | | |
|-------------------------|-------|----------|
| Hams:— | | Per lb. |
| Smoked hams, 8-14 lbs. | ..... | 0.23½ |
| Do., 14-20 lbs. | ..... | 0.23½ |
| Do., 20-25 lbs. | ..... | 0.23½ |
| Do., over 30 lbs. | ..... | 0.19 |
| Large boneless hams | ..... | 0.23½ |
| Bacon:— | | |
| Roll Boneless Bacon | ..... | 0.26 |
| Windsor Bacon, selected | ..... | 0.27 |
| Windsor Bacon, Boneless | ..... | 0.29 |
| Barrel Pork:— | | Per bbl. |
| Short cut pork | ..... | 32.00 |
| Clear Fat Pork, 30-40 | ..... | 35.00 |
| Clear Fat Pork, 40-50 | ..... | 33.00 |
| Clear Fat Pork, 20-35 | ..... | 30.00 |
| Mess Pork | ..... | 29.50 |
| Bean Pork, Canadian | ..... | 24.50 |
| Barrel Beef:— | | |
| Plate Beef, 200 lbs. | ..... | 24.00 |
| Pure Lard— | | pound. |
| Tierces | ..... | 0.15½ |
| Tubs | ..... | 0.16¾ |
| Pails | ..... | 3.40 |
| Tins | ..... | 3.30 |
| Cases, 3, 5, 10's | ..... | 0.17½ |
| Prints | ..... | 0.17¾ |
| Compound Lard:— | | |
| Western Grades:— | | |
| Tierces | ..... | 0.14 |
| Tubs | ..... | 0.14 |
| Pails | ..... | 2.85 |
| Tins | ..... | 2.75 |
| Cases, 3, 5, 10's | ..... | 0.14¾ |
| Prints | ..... | 0.14¾ |
| Cooked meats:— | | |
| Roast shoulders pork | ..... | 0.30 |
| Roast ham, boneless | ..... | 0.32 |
| Cooked hams, rind off | ..... | 0.33 |
| Head cheese | ..... | 0.09 |
| Jellied pork tongues | ..... | 0.30 |
| Blood pudding | ..... | 0.09 |
| White pudding | ..... | 0.08½ |
| Jellied beef tongues | ..... | 0.28 |
| English brown | ..... | 0.11 |

MONTREAL GRAIN STOCKS.

The following table shows the stocks of grain and flour in store in Montreal on the dates mentioned:

| | April 22, 1916. | April 15, 1916. | April 24, 1915. |
|----------------|-----------------|-----------------|-----------------|
| Wheat, bus. | 1,367,615 | 1,014,143 | 371,986 |
| Corn, bus. | 7,721 | 9,716 | 100,779 |
| Oats, bus. | 2,050,274 | 1,472,313 | 645,797 |
| Barley, bus. | 98,050 | 105,560 | 147,436 |
| Rye, bus. | 39,328 | 38,178 | 14,720 |
| Buckwheat, bu. | 4,805 | 4,805 | 12,271 |
| Flour, sacks | 69,712 | 50,305 | 73,093 |

NORTH AMERICAN GRAIN EXPORTS.

Bradstreet's figures of the week's wheat and flour exports from the United States and Canada, compared with previous years, are as follows, in bushels:

| | 1916. | 1915. | 1914. |
|---------|------------|------------|-----------|
| Apr. 20 | 8,644,165 | 9,722,502 | 2,764,910 |
| Apr. 13 | 8,731,409 | 7,114,709 | 2,805,681 |
| Apr. 6 | 8,402,205 | 7,311,464 | 2,479,230 |
| Mar. 30 | 8,306,854 | 10,110,252 | 2,653,433 |
| Mar. 23 | 10,389,253 | 6,826,078 | 2,780,352 |
| Mar. 16 | 9,765,236 | 6,277,903 | 4,480,101 |
| Mar. 9 | 9,645,381 | 7,793,442 | 3,764,208 |
| Mar. 2 | 8,199,193 | 8,432,806 | 3,576,737 |

Wheat exports in this week in 1916 were 3,494,924 bushels; in 1915, 3,169,514 bushels; in 1914, 1,769,878 bushels, and in 1910, 1,289,272 bushels.

Bradstreet's figures for the week's corn exports, compared as follows, in bushels:

| | 1916. | 1915. | 1914. |
|---------|-----------|-----------|---------|
| Apr. 20 | 925,418 | 1,725,101 | 28,604 |
| Apr. 13 | 684,207 | 1,931,202 | 25,975 |
| Apr. 6 | 965,098 | 3,081,466 | 22,420 |
| Mar. 30 | 899,444 | 1,998,711 | 85,847 |
| Mar. 23 | 1,389,772 | 1,407,228 | 134,301 |
| Mar. 16 | 1,319,242 | 1,688,707 | 69,445 |
| Mar. 9 | 379,272 | 1,414,475 | 95,697 |
| Mar. 2 | 469,652 | 2,615,633 | 60,833 |

ORDERING EQUIPMENT.

Philadelphia and Reading Railway has ordered 26 locomotives from the Baldwin Locomotive Works. Twenty of the engines will be of the Mikado type and six of the Mallet type. They will cost about \$1,000,000.

FLOUR, CEREALS AND MILLFEED.

Business continues very slow in the flour market, the trade buying only in small lots to fill actual wants. The mills are generally taking advantage of the slackness to overhaul their plants, although contract business is still on hand. Ontario reports state that little wheat is now coming forward, but that the mills are well supplied to meet the slow demand offering. Prices are steady and unchanged.

Millfeed continues in good demand from all sources, and as the supplies are low prices are very firm. There is no actual change to report, however. The market for rolled oats is quiet, and prices are unchanged.

| | Montreal. | Toronto. |
|---------------------------------------|-------------|-------------|
| First patents, per bbl., in bags | 6.60 | 6.50 6.70 |
| Second patents, do. | 6.10 | 6.00 6.20 |
| Strong clears, do. | 5.90 | 5.80 6.00 |
| 30c per bbl. more in wood. | | |
| Winter wheat flour— | | |
| Fancy Patents | 5.85 6.10 | 4.40 4.30 |
| 90 per cent in wood | 5.60 5.80 | |
| 90 per cent in bags | 2.70 2.75 | |
| Cereals:— | | |
| Cornmeal, yellow, in per bag, 98 lbs. | 2.75 | 2.50 |
| Rollled oats, per bbl., in wood | 5.00 5.10 | |
| per bag, 90 lbs. | 2.35 2.40 | 2.65 |
| Rollled wheat, 100 lb. bbl. | 4.00 | 3.00 |
| Rye flour, 98 lb. bag | 2.65 2.80 | 2.80 |
| Graham flour, 98 lb. | 3.00 | 3.25 |
| Barley pot., 98 lbs. | 3.00 | |
| Barley, Pearl, 98 lbs. | 4.50 | 4.70 4.90 |
| Whole wheat flour, 98 lbs. | | 3.25 |
| Middlings, per ton | 28.00 30.00 | 26.00 27.00 |
| Bran, per ton | 24.00 | 24.00 25.00 |
| Shorts, per ton | 26.00 | 26.00 |
| Feed flour, per ton | 35.00 | |
| Feed flour, bag | 1.60 | 1.70 |
| Moullie, pure grain grades, per ton | | |
| Do., mixed | 33.00 | |
| Do., meal, per ton | 31.00 | |
| Barley feed, per ton | 32.00 | |
| Do., meal, per ton | 35.00 | |
| Crushed oats, 80 lbs. | 1.75 | |
| Reground oatmeal feed, per ton | 19.00 | |

WINNIPEG GRAIN RECEIPTS.

The receipts of grain at Winnipeg for the week ended April 22, 1916, compared with the previous week and the corresponding week a year ago were as follows:

| | Apr. 22, 1916. | Apr. 15, 1916. | Apr. 24, 1915. |
|----------------|----------------|----------------|----------------|
| No. 1 Hard | 1 | | |
| No. 1 Northern | 1,221 | 1,120 | |
| No. 2 Northern | 546 | 605 | |
| No. 3 Northern | 309 | 387 | |
| No. 4 Northern | 165 | 172 | |
| No. 5 Northern | 59 | 60 | |
| No. 6 Northern | 15 | 27 | |
| Other grades | 189 | 277 | |
| Winter grades | 10 | 6 | |
| Total | 2,525 | 2,878 | 930 |
| Flax | 735 | 872 | 235 |
| Oats | 62 | 63 | 47 |
| Barley | 80 | 81 | 47 |

GRAIN EXPORTS.

The following are the exports of grain from the Ports of Portland and St. John, N.B., that have arrived at their destination week ending April 20, 1916.

| | Wheat, bush. | Flour, bush. |
|--------------|--------------|--------------|
| London | 120,000 | |
| Manchester | 250,000 | |
| Avonmouth | 219,000 | |
| Rotterdam | 195,224 | |
| Barrow | 170,000 | |
| South Africa | | 35,231 |
| | 954,224 | 35,231 |

REFINED SUGAR AGAIN UP.

The sugar market remains in a very strong position in sympathy with the continued advance of the raw article in New York, which has forced up refined sugar in this market. Another 10c per 100 lbs. to \$7.70 for extra granulated in bags and \$7.75 in bbls. This makes an advance of \$1.15 per 100 lbs since the beginning of the year and \$1.10 advance over prices a year ago.

FRUIT AND VEGETABLES.

There has been a great deal of extra business passing owing to the Easter and Jewish holiday trade during the past week. Only one carload of strawberries arrived on the market, which caused a general scramble to get the fruit while it lasted. It was sold at auction at unusually high prices, with the result that the quoted price has risen from 12c to 15c, to 17c to 18c, and even higher. High prices have been ruling in bananas, bunches of 7 hands selling at \$1.00, and 9 hands at \$2.00 to \$2.25. There is no change to note in oranges, prices ranging from \$2 to \$4.00. Grapefruit is strong and active, the best brands selling at \$3.75 to \$4.25. Pineapples are arriving on the market in carload lots, and are selling at \$3.75 to \$5.00, according to size.

The scarcity of green beans on the New York market is expected to advance Montreal prices from the present price of \$4.50 to \$5.00 to even as high as \$9 to \$10 per basket. Red onions are practically over, giving place to Texas and Egyptians, of which the early shipments will be very high in price. Lettuce has been very high over Easter, selling at 7c to 8c per lb. The tomato market is climbing up in response to very light shipments from Florida. Only 50 carloads are being shipped instead of the usual 200 to 500 carloads per day.

Current quotations follow:—

| | | |
|------------------------------------|-------|-------------|
| Apples:— | | |
| Starks | ..... | 5.00 |
| Spys | ..... | 6.00 7.00 |
| Ben Davis | ..... | 3.00 3.25 |
| Russells | ..... | 6.00 6.50 |
| Baldwins | ..... | 4.50 5.00 |
| Bananas, bunches | ..... | 2.00 2.50 |
| Cranberries, Cape Cod, bbl. | ..... | 12.00 14.00 |
| Cranberries, Nova Scotia, bbl. | ..... | 8.50 9.00 |
| Grapefruit, 46-54-64-80-96 | ..... | 3.75 4.25 |
| Grapes, Malaga, heavyweight, bbl. | ..... | 8.00 10.00 |
| Lemons:— | | |
| California | ..... | 3.00 |
| Messina, 300 size, box | ..... | 3.00 |
| Oranges:— | | |
| Navel, Californias, 176-200-216 | ..... | 4.00 |
| 126 | ..... | 3.25 |
| 80-96 | ..... | 2.50 |
| Jamaica, 196-200-216 | ..... | 2.50 |
| Porto Rico, 126-150-250-286 | ..... | 2.75 |
| Pineapples, 18-24 and 30-36 | ..... | 4.50 5.00 |
| Strawberries, Louisiana, box | ..... | 0.17 0.18 |
| Vegetables:— | | |
| Artichokes, bag | ..... | 1.50 |
| Beets, bag | ..... | 1.50 |
| Beans, wax, N.Y., per basket | ..... | 4.50 5.50 |
| Beans, green, N.Y., per basket | ..... | 4.50 5.50 |
| Cabbage, Montreal, per bbl. | ..... | 2.00 |
| Cabbage, red, dozen | ..... | 0.40 |
| Do., New American | ..... | 3.00 |
| Cauliflower, hampers | ..... | 4.00 |
| Do., New American | ..... | 3.50 |
| Cauliflower, crate, singles | ..... | 3.50 |
| Celery, Florida, crate | ..... | 3.25 |
| Cucumbers, fancy, Boston, doz. | ..... | 2.50 |
| Garlic, per lb. | ..... | 0.30 |
| Horse radish | ..... | 0.14 |
| Leeks, bunch | ..... | 0.30 |
| Curly lettuce, box, doz. | ..... | 2.50 |
| Mint, dozen | ..... | 0.60 |
| Mushrooms, 4-lb basket | ..... | 2.50 2.75 |
| Oyster plant, dozen | ..... | 1.00 1.25 |
| Onions:— | | |
| Reds, 100 lb. bags | ..... | 3.75 4.00 |
| Spanish, case | ..... | 6.50 |
| Do., crates | ..... | 3.25 |
| Parsnips | ..... | 1.00 1.25 |
| Potatoes:— | | |
| New Brunswick, 80 lbs., bags | ..... | 1.90 |
| Sweet, hamper | ..... | 1.75 2.00 |
| Radishes, doz. | ..... | 0.40 |
| Rhubarb, lb. | ..... | 0.10 |
| Spinach, New York, bbl. | ..... | 3.25 3.50 |
| Turnips, bag | ..... | 0.90 |
| Tomatoes, hothouse, lb. | ..... | 0.30 0.35 |
| Tomatoes, Florida, doz. | ..... | 3.25 |
| Do., choice | ..... | 2.75 |
| Watercress, Boston, hothouse, doz. | ..... | 0.75 |

GRAIN AT HEAD OF LAKES.

Dr. Magill, chairman of the Board of Grain Commissioners, in a recent interview stated that there would be more work regarding the handling of grain at Fort William this season than ever before. "The elevators are full to overflowing, with over 40,000,000 bushels of grain, excluding the hospital elevators. The terminal elevator capacity at the head of the lakes is 40,600,000 bushels and the stocks in store exceed this total. There are still 100,000,000 bushels of wheat to be marketed by the farmers and there are 45,000,000 bushels actually on the farms not moved out of the bins. All this grain has to be moved east; the elevators have to be emptied of their contents, and all this grain has to come down here and be sent on to the east. There is a much larger volume of grain to be moved than there ever has been before and there will be more work in this respect than ever before in the history of these two cities," said the chairman.

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BOSTON WOOL SITUATION.

The Commercial Bulletin, Boston, April 22, 1916, says, in part: "War, rather than wool, has been the topic of chief discussion through the wool trade this week. While there has been some business underway more or less continuously, it has not been of large proportions; on the contrary, it has been of rather modest proportions and hardly more than it was a week ago.

Prices are firm for the most part. Short defective wools are not especially wanted and are rather irregular in price but wools of good quality and staple and even of average quality and staple are wanted and do not go begging for a purchaser, notwithstanding the fact that the market is indisputably quieter.

"Developments in the diplomatic relations between the United States and Germany have been pretty thoroughly discussed in the trade since the holiday (Wednesday) particularly with reference to the bearing of the situation on the price of wool, present and prospective. The conclusion has been very generally reached that the factors in the situation do not make for weakness but rather for continued strength.

"Sales of foreign wool have been of fair proportions only this week. Some business has been done both in Australian and Cape fine wools on the basis of 75 @ 80 cents for the most of the Australian 64's of fair to average quality, while choice wools, which are very limited in supply will bring readily up to 85 cents and good 70's range from 85 cents up to 90 cents, although supplies of these are also very limited indeed.

"Sales of Cape wools have been fairly large and have included some good combing sorts up to 75 cents, clean basis, and some short wools at 65 @ 70 cents, clean basis. Montevideo merinos have sold to a limited extent at 75 @ 78 cents, clean.

"Crossbreds have been in steady request for good wools but sales have not been large. A few Montevideo crossbreds ranging from 46's to 56's grade are reported sold at 44 @ 48 cents in the grease, while a moderate quantity of New Zealand crossbreds have been sold at 47 @ 48 cents for 46's and around 45 cents for 40-44's. These wools mean around 68 @ 70 cents clean for 46's and 62 @ 63 cents for 40-44's. A few Argentine crossbreds have been sold at 40 @ 41 cents for Lincoln and 42½ cents for average quarter-blood. High quarters are in limited supply and are held at 44½ @ 45 cents."

HAULING OVER 2,300,000 MILES OF ROADS.

There is the strongest kind of an argument for good roads in a report of the interstate commerce commission that in one year the railways of this country hauled 1,949,689,599 tons of freight, of which 195,586,840 tons were the products of agriculture. This tonnage of freight was hauled over 350,000 miles of railroad, but before it reached the railroad it was hauled over 2,300,000 miles of wagon roads.

The railroad haul was over the smoothest and most level road that can be made. The highway haul was mostly over unpaved and ungraded dirt roads, full of ruts, sink holes, and knolls. If the farmers were organized into corporations as the railroads are, they would soon discover they could not afford the enormous waste of bad roads.—Kansas City Star.

FEARFULLY AND WONDERFULLY MADE.

Generally speaking, a man of 50 years of age has slept 6,000 days, worked 6,500 days, walked 800 days, amused himself 4,000 days, eaten 1,500 days and been sick 500 days. He has eaten 17,000 pounds of bread, 16,000 pounds of meat, 4,600 pounds of vegetables, eggs and fish, and drunk, in all, 7,000 gallons of liquid.

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 have been declared for the three months ending 30th April, 1916, also a Bonus of One Per Cent, and that the same will be payable at its Banking House in this City, and at its Branches, on and after Thursday, the FIRST day of June next, to Shareholders of record of 29th April, 1916.

By order of the Board,
FREDERICK WILLIAMS-TAYLOR,
General Manager.

Montreal, 18th April, 1916.

EUROPEAN BEET CROP.

Revised figures of the 1915-16 European beet crop show reductions of outturn in most cases. Germany is reduced 220,000 tons, to 1,400,000 tons. France, Belgium and Holland also show slight reductions, as do "other countries." Russia, however, shows a small increase. The net decrease of the estimate of all Europe is 299,115 tons, making the latest indication 5,190,387 tons. Holland has embargoed half of her crop for home consumption. Later press advices state that Holland has forbidden exportation of foodstuffs, although it is not known whether or not this means a total embargo on all sugar exports. Conditions in Russia in the sugar business are very prosperous, in spite of the difficulties attendant upon sugar making due to war conditions. Cost of production in Russia is put at from 2.25c to 3.42c per lb., not including excise tax. Crude is selling at 8.72c to 8.77c per lb., f.o.b., railway station.

The latest estimate of the European beet sugar production, 1915-16, based on best advices so far received from various sources, compared with the latest estimate of the 1914-15 crop, and the latest figures for the actual-outturn of the three preceding years:

| | 1915-16. | 1914-15. | 1913-14. |
|-------------------|-----------|-----------|-----------|
| | Tons. | Tons. | Tons. |
| Germany | 1,500,000 | 2,400,000 | 2,720,000 |
| Austria | 1,011,400 | 1,602,315 | 1,703,000 |
| France | 140,000 | 302,961 | 805,000 |
| Belgium | 100,000 | 204,697 | 229,049 |
| Holland | 230,000 | 302,458 | 230,000 |
| Total | 2,981,400 | 4,912,431 | 5,687,049 |
| Russia | 1,588,872 | 1,992,776 | 1,687,799 |
| Other countries . | 620,115 | 678,008 | 804,165 |
| Grand Total .. . | 5,190,387 | 7,583,215 | 8,179,013 |

THE WORLD'S METAL SUPPLIES.

In 1912, the world used over a million tons of new copper, of which the United States produced 547,000 tons and consumed 345,000. Germany produced 25,220 tons and consumed 243,173. English possessions produced 47,020 tons, and consumed 147,551. France consumed 106,753 tons. Of tin, 116,079 tons appeared in 1913. The United States took 45,551 tons. The world produced 1,186,700 tons of pig lead in 1913, 407,800 tons in the United States, 181,100 in Germany, 203,000 in Spain, 163,000 in British possessions. The consumption of lead was placed at 1,196,200 tons; 401,300 by the United States, 223,500 by Germany, 191,400 by England, 107,600 by France. The world produced 1,093,635 short tons of spelter in 1913, 346,76 in the United States, 312,075 in Germany, 70,000 by England's possessions. The United States consumed 295,270 tons.

The United States produces more copper, iron, zinc, and lead than any other country. It buys nearly all the tin it consumes, taking 92 per cent of its imports from England or its dependencies.

THE REAL CULPRIT.

The crown prince had been so busy that he hadn't had time to get together with his father and have a confidential chat. But one evening when there was a lull in the 808-centimeter guns, they managed to get a few moments off. The crown prince turned to his father and said:

"Dad, there is something I have been wanting to ask you for a long time. Is Uncle George really responsible for this scrap?"

"No, my son."

"Well, did Cousin Nick have anything to do with it?"

"Not at all."

"Possibly you did?"

"No, sir."

"Then, would you mind telling me who it was?"

The anointed one was silent for a moment. Then he turned to his son and said:

"I'll tell you how it happened. About two or three years ago there was a wild man came over here from the United States, one of those rip-roaring rough riders that you read about in dime novels, but he certainly did have about him a plausible air. I took him out and showed him our fleet. Then I showed him the army, and after he had looked them over he said to me, 'Bill, you could lick the world.' And I was damn fool enough to believe him." — Life.

CONDITIONS IN BOOT AND SHOE TRADE.

There are few if any of the staple industries today in which the abnormal freight rates and the critical labor conditions resulting from the war are not dominant factors. This is especially true of the boot and shoe trade. The leather market has of late gone up to its present high prices by leaps and bounds, owing mainly to the difficulty of obtaining transportation for hides from South America, where the major portion of our leather supplies have been drawn from in the past. The total production of North American leather has declined considerably of recent years, the ranchers in the American West having to a large extent drifted into the newly formed towns and cities of the Prairie States. The beligerent nations prior to the war supplied us with certain grades of leather, such as colt skins for patent leather from Russia, and kids from France and Germany. These supplies, however, were after all but a small factor in the leather trade and have been replaced by larger imports from India and Mexico. Co-incident with this shortage we find an increased demand for the leathers now being used quite extensively in the manufacture of automobile fittings; ladies handbags and other lines known as "fine leather goods."

There are these days many difficulties that assail the buyers in the boot and shoe trade. Not only may the charges for freight and insurance actually equal the value of the hide, or the leather market may swing up or down 5 cents or 6 cents a foot in 24 hours, but all the other accessories to the business are difficult to obtain. Dyes are from 400 to 700 per cent higher than before the war and even then almost impossible to obtain, while the prevailing scarcity in the cotton and linen markets has caused a shortage in shoe laces.

The character of the retail market is also playing an important part. Five or six years ago ladies wore their skirts longer, and looked for a solid sensible shoe with good wearing qualities. Now-a-days, the skirts are worn to the boot tops, revealing shoes to match or contrast with the gown, chic in outline, and up to the moment in design and finish. The result is that in the women's shoe trade the styles are changing every month, and this means that orders are largely of a hand to mouth character. As it is impossible to predict the fickle feminine taste, an unfortunate guess may load up a dealer with a lot of unsaleable goods, and at the same time compel the manufacturer to work overtime to supply an unexpected demand for a new style.

Children's shoes are similarly affected, though to a more moderate extent. The decrease in the retail consumption of men's boots, resulting from the large numbers of men that have gone to the front, has been replaced by army orders so far as the manufacturers are concerned. The retailer, however, is for the present losing a large portion of his trade, for the Government of course deals directly with the manufacturers. Sales of sporting shoes, even in face of the war, show a tendency to increase, for the individual sportsman now buys several styles where one formerly filled his requirements.

Taking a general survey, however, this industry, although beset by many difficulties, is in a very prosperous condition at the present moment.

PERSONALS.

Mr. Harry Hodgson, butter and cheese exporter, has returned from his business trip to England via New York.

Captain T. G. Hodge, of the firm of George Hodge and Son, has returned from his trip to England via Halifax.

Mr. Arthur Jones, of the butter and cheese exporting firm of Jones, Grant, Lunham, Ltd., has arrived home from his trip to England, by way of New York, on the New Amsterdam boat.

U. S. EXPORTS.

Sir George Paish in London Statist says: "How great the exports from United States will be in the current year cannot be foretold, but they seem likely to be very much greater than last year. It would not be surprising to find that trade balance to be settled in securities or gold will rise in the next twelve months from \$1,500,000,000 to \$2,000,000,000 or even \$2,500,000,000, unless conditions change. At present prices of securities are simply result of sale of hundreds of millions of new stock in a single year and when these conditions are succeeded by a reverse operation a great rise in prices will be inevitable."

Shipping News

ORIGIN OF THE TANKER.

About 1880 Wilhelm Riedemann, a Prussian shipowner, withdrew from the East Indian and American trade for use in transporting petroleum two sailing vessels which had amidships two iron tanks of the same depth as the distance between deck and keel. Originally these tanks contained drinking water for the sailors, but it was found that the water could not be kept free of iron rust and this use was abandoned. Riedemann utilized these tanks as petroleum containers and found that his transportation expenses were reduced four marks a barrel in this way.

Continuing the experiment on a larger scale, Riedemann transformed the "Andromeda," a 3,200-ton vessel, into a petroleum carrier by installing on each of her three decks 24 iron tanks connected with pipe lines. The big disadvantage in this arrangement was that in the event of repairs being made on the ship, which was of wood, the tanks had to be removed at great expense and risk of damage. Riedemann finally concluded that the ideal tanker must be of iron and the entire hull of the vessel used as a container. Accordingly he planned a ship with the engine aft, protected by a water filled cofferdam, and the remaining space separated by bulkheads into eight compartments.

Riedemann tried in vain to get a German shipbuilding firm to construct a vessel after this design. He went to England and finally persuaded a Newcastle concern to undertake it. The result was the first modern tanker, the "Gluckauf," which was launched in June, 1886.

The arrival of the "Gluckauf" in New York in August of the same year created consternation among petroleum shippers. An indignation meeting was held and it was proposed to petition Congress to prohibit the exportation of petroleum in bulk on the ground that the oil gases would endanger the lives of all on board the tanker. A committee was appointed to request the Standard Oil Co. to refuse petroleum to the "Gluckauf."

But progress triumphed as usual. To-day there are 400 vessels of substantially the "Gluckauf" type transporting petroleum and 58 more are now in course of construction in American shipyards. — Wall Street Journal.

GEORGIAN BAY CANAL REPORT.

A voluminous report on the Georgian Bay Canal project prepared by the special Commissioner, W. Sanford Evans, appointed two years ago to investigate the commercial possibility of the Ottawa River route, has been tabled in the House of Commons. The report contains a thousand pages of data in regard to grain routes, trade channels, transportation charges, etc., but it makes no findings and no recommendations.

The absence of any definite conclusions is doubtless due to the fact that the Government, while having in reality decided to abandon the project for at least some years to come, at the same time does not wish to tell the Ottawa Valley constituencies to abandon hope. The deepening of the Welland Canal decided the fate of the Georgian Bay Canal scheme.

The report has cost the Treasury upwards of \$15,000.

MARINE INSURANCE RATES.

Marine insurance rates were advanced 1½ per cent a few days ago in New York, 2 per cent being charged by underwriters on liners and 2½ per cent on tramp steamers. This is a new high for this movement, and is due to increased graveness of the diplomatic situation between Germany and United States.

GRAND TRUNK SPRING CHANGES.

Effective Sunday, April 30th.

Train now leaving Montreal 1.30 p.m. Saturdays and Sundays only for Vaudreuil, will run daily except Sunday and on Saturdays will run through to Cornwall.

Train now leaving Vaudreuil 7.20 a.m. daily except Sunday, arriving Montreal 8.20 a.m., will leave Vaudreuil 7.10 a.m., daily except Sunday, arriving Montreal 8.10 a.m.

LETHBRIDGE MUNICIPAL RAILWAY.

Gross earnings April 7-14 \$844.97



MR. A. W. SMITHERS.

Chairman of Board of Directors, Grand Trunk Railway. He presided at the annual meeting of the Company held a few days ago.

Railway News

GRAND TRUNK TRAINMEN MUST HAVE PERFECT VISION AND HEARING.

All men in train service on the Grand Trunk System have to undergo a strict and scientific examination as to their vision, color sense and hearing before being employed by the railway, and those already in service must pass satisfactorily a re-examination at least every two years.

Dr. H. B. Carmichael, M.D., Division Surgeon, Eastern Division of the Grand Trunk Railway System, in a paper contributed to the Canadian Medical Association Journal, tells of the results of these rigid examinations. Out of 1,275 men who applied for entrance to the railway service, 60 were rejected, having failed to pass the high standard demanded in vision, color sense, or hearing. Defective vision was responsible for the failure of 27 of these men, while 32 had a defective color sense, and one defective hearing. Each employing officer in the Company is held responsible for keeping record of the dates that employees are due for re-examination, and by this means the Company is assured that each man employed in the handling of trains has the proper physical requirements to fulfil his duties safely and well.

WHAT IS A RAILROAD?

A railroad is not the unfeeling and relentless devourer of automobiles and little children at grade crossings described by impassioned advocates in crowded court rooms. The whistle of danger is an engineer's use of a piece of machinery, but it is also the echo of a man's thought for his own babies left at home.

A railroad has been likened to an octopus by those who do not know the flesh and blood and personality of railroads. The soul of a railroad is fidelity, and if a railroad is an octopus, it is an octopus with a soul.

A railroad is a disciplined power, owning rails and cars and locomotives; engaging the highest quality of mechanical skill and expert knowledge; but the glory of a railroad is the united adjustment of its living nerves to patience, courtesy, speed and safety.—Edwin S. Jackman, in Boston News Bureau.

CANADIAN PACIFIC

TICKET OFFICES:

741-143 St. James Street. Phone Main 8125.
Windsor Hotel, Place Viger and Windsor St. Stations.

RAILROAD BUILDING.

During 1915, 933.24 miles of new first track was completed in the United States and 718.37 miles in Canada. In the same period 356.28 miles of second track was completed in the United States and 0.84 miles in Canada. There was also during this period 64.70 miles of other multiple main tracks in the United States. Some activity is again noted in Mexico, where 36.50 miles of line was reported completed. Government railways of Alaska report 34 miles of line completed and 250 miles additional projected. These figures are based on reports made directly to us by various railroads, supplemented by our own construction records and are as complete as it is possible to compile at this time.

The figures of new construction by years beginning with 1893 are as follows:

| | | | |
|------|-------|------|-------|
| 1893 | 3,024 | 1905 | 4,388 |
| 1894 | 1,760 | 1906 | 5,623 |
| 1895 | 1,428 | 1907 | 5,212 |
| 1896 | 1,692 | 1908 | 3,214 |
| 1897 | 2,109 | 1909 | 3,748 |
| 1898 | 3,265 | 1910 | 4,122 |
| 1899 | 4,569 | 1911 | 3,066 |
| 1900 | 4,894 | 1912 | 2,997 |
| 1901 | 5,368 | 1913 | 3,071 |
| 1902 | 6,026 | 1914 | 1,532 |
| 1903 | 5,652 | 1915 | 933 |
| 1904 | 3,832 | | |

Locomotives built for every year since 1901:

| Year | No. built | Year | No. built |
|-------|-----------|-------|-----------|
| 1901 | 3,384 | 1908a | 2,342 |
| 1902 | 4,070 | 1909a | 2,887 |
| 1903 | 5,152 | 1910a | 4,755 |
| 1904 | 3,441 | 1911a | 3,530 |
| 1905a | 5,491 | 1912b | 4,915 |
| 1906a | 6,952 | 1913b | 5,332 |
| 1907a | 7,362 | 1914b | 2,235 |
| | | 1915b | 2,085 |

a—Includes Canadian output.
b—Includes Canadian output and equipment built in railroad shops.

Cars built every year since 1904:

| Year | Freight | Passenger | Total |
|-------|---------|-----------|---------|
| 1904 | 60,806 | 2,144 | 62,950 |
| 1905a | 165,155 | 2,551 | 168,006 |
| 1906a | 240,503 | 3,167 | 243,670 |
| 1907a | 284,188 | 5,457 | 289,645 |
| 1908a | 76,555 | 1,716 | 78,271 |
| 1909a | 93,570 | 2,849 | 96,419 |
| 1910a | 180,945 | 4,412 | 185,357 |
| 1911a | 72,161 | 4,246 | 76,407 |
| 1912b | 152,429 | 3,060 | 155,489 |
| 1913b | 207,684 | 3,296 | 210,980 |
| 1914b | 104,541 | 3,691 | 108,232 |
| 1915b | 74,112 | 1,949 | 76,061 |

a—Includes Canadian output.
b—Includes Canadian output and equipment built in railroad shops.

A MANCHURIAN RAILROAD.

Chinese government has signed an agreement, Japan concurring, permitting Russia to construct a railroad 662 miles long and costing \$25,000,000 in Manchuria. Road will give Russia control in northern Manchuria, in compensation for railway rights granted to Japan in southern Manchuria.

CANADIAN NORTHERN

QUEBEC

Daily except Sunday 9.30 A. M. Buffet Parlor Cars.

SHAWINIGAN FALLS GRAND MERE

Via the Short Line

9.30 A. M. Daily except Sunday. 4.45 P. M. Daily except Sunday.

L'ÉPIPHANIE JOLIETTE

Via the Short Line

9.30 A. M. Daily. 4.45 P. M. Daily except Sunday.

5.30 P. M. Daily except Sunday.

For tickets, parlor car reservations, etc., apply to City Passenger Agent, 230 St. James St., Tel. Main 6570 or Depot Ticket Agent, St. Catherine St. East Station, Tel. Lasalle 141.