

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

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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 Vindication of Aluminum

Aluminum is by far the most plentiful of the metals in the earth's crust, but until recent times it has been one of the most difficult of all to prepare in the pure state, writes a metallurgical expert in the London Standard. Aluminum is the foundation metal of granite and of clay. The English put an "i" in the name and refer to it as "aluminium." All soils contain it, and the outer crust of the world is full of it. Evolutionists usually explain this by saying that a big drop of liquid once formed in the flaming vapors of our universe, and as the drop cooled down the heavier part sank towards the centre, leaving the lighter elements on the surface. Aluminum, being one of the lightest of them, naturally became a constituent of the outer crust. Lead, iron, and gold lie deeper down.

It was one of the greatest metallurgical achievements of the last century to separate the pure metal from the common minerals in which it was so strongly locked, and it was an equally great commercial triumph to put the metallurgical operation into such a position that aluminum has now become almost a household metal, white, clean, strong, and astonishingly light.

"Thirty years ago the world's annual production was about 5,500 lbs. In 1913 it rose to nearly 174 million pounds. At first it was a disappointment. The wonderful new white metal was only a quarter the weight of iron, bulk for bulk, and was supposed to be as strong as steel. So it was for minor purposes when small quantities were used, but as engineers used it more and more they discovered its limitations. Its strength was not so great as had been thought; its marvelous lightness was still there, but on the whole engineers fought shy of it.

"A little later aeronautics came into being, and aircraft makers found aluminum to be the very metal they needed. About the same time the astonishing chemical properties of the powdered metal were recognized. Aluminum thereafter became one of the most desirable metals for any nation that wished to wage war. Its use in aeroplanes is now well known, but its use when filed to a powder is less understood. Yet in this condition it forms part of two of the most destructive agents used by the Central European Powers. The first is the high explosive used to charge the Austrian shells. This is known as 'ammonal,' a mixture of five or eight parts of ammonium nitrate with one part of finely powdered aluminum. The exact proportions, and the means for keeping the mixture dry, are, of course, secrets which the Austrians keep to themselves, but even as made in English laboratories its explosive violence is tremendous. It is one of the few explosives that has never been used as a propellant. No gun known to warfare could resist its suddenness. The

explosion chambers would be smashed to pieces before the projectile had begun to move. So it is put inside the projectile itself and allowed to explode amongst the enemy a few miles away from the gun. So far as we know it is only the Austrian howitzer shell that contains this horrible mixture."

The other chemical use of powdered aluminum is in making thermite, the famous incendiary bomb which enables an airman to drop melted iron in such quantities as to set even wood pavements on fire. This is a mixture of oxide of iron and aluminum powder.

Now, it is not easy to extract aluminum from either clay or granite even with the best modern appliances. The world's supply depends almost entirely on a mineral known as bauxite. It is really doubtful whether Germany can produce enough aluminum to meet her needs. We can only estimate her abilities in this direction from what was known before the war, and the sources of aluminum in 1913 can be summed up in a very few words.

The United States and Canada, in that year, produced nearly half of the world's output of aluminum, the remainder being furnished in almost equal quantities by France, Great Britain, and Switzerland, leaving out of account a certain amount (perhaps eight hundred tons) produced by Italy. So far as the Allies are concerned, therefore, they are in a much better position with regard to the supply of this metal.

Moreover, France contains the most suitable of all European deposits of the raw material of manufacture — nearly pure bauxite. We must, however, remember that the Swiss production is available, and it is probable that Germany has, since the war, extended its own production.

THE STANDARD BANK.

Net earnings of the Standard Bank for the year ended January 31st, amounted to \$563,401 as compared with \$621,463 in 1914. Earnings are equal to 18.78 per cent on the capital of the bank and 8.04 on combined capital and rest.

The Standard Bank secured a large share of the aggregate gain in deposits which came to Canadian banks during 1915, the total deposits at the close of the fiscal year amounting to \$43,099,000, a gain for the year of \$5,058,000. On the other hand, banking accommodation extended to the public was increased from \$31,426,000 to \$33,942,000. On January 31 the bank held in actual cash assets \$12,893,000 and its quick assets were \$18,414,000, the increase being \$2,548,000. The ratio of quick assets to liabilities to the public are increased by a considerable margin over any previous period in the history of the bank.

Investments during the year included a subscription of \$1,000,000 to the Dominion war loan, upon which subscription the bank was allotted \$857,000. The note circulation at the end of the year was \$3,271,000, an increase of, roughly half a million dollars.

THE DETERIORATION OF OUR YOUTH.

The fact that about 25 per cent of the Canadian recruits have been rejected because of some defectiveness—flat feet, varicose veins, and these in men who at least thought themselves physically sound—should give food for thought to those who have control of our public health, particularly in the schools. It would seem that if a better system of physical training and more frequent medical examinations had been in vogue in our public schools a higher percentage of recruits would have passed the medical examination.

The pity of it—young fellows anxious to do their bit turned down through a defect which might have been prevented, or eliminated if detected when young.

We know of schools with good gymnasiums in which the scholars are allowed but once a week, and we also know of schools where there is neither a gymnasium nor physical exercise of any kind. The reason given in most cases being that the syllabus did not allow the time for physical drill. The state can hardly expect much return from a training such as this.—Canadian Municipal Journal.

PEOPLE'S MUTUAL BUILDING SOCIETY.

The twenty-third annual meeting of the People's Mutual Building Society, Class B., was held a few days ago, when the annual statement was presented by the president, William Geraghty. The declaration of a six per cent dividend was made to the shareholders on the year's operations, the best result obtained in the past fifteen years.

The profit and loss account presented showed that the revenue of the company for the year ended Dec. 27, 1915, was \$33,254, and the balance carried forward after expenses, contingent reserve, etc., was \$667.79.

PERSONALS.

Mr. W. P. Hunt, manager of the Bank of Nova Scotia in Montreal, has gone to the West Indies on an inspection trip.

Mr. A. J. Dawes has been elected to the board of the Northern Electric Company, Ltd., succeeding the late Mr. Archer.

Mr. P. S. Hairston who lost his life in the American Club fire in Toronto, was a mining broker in that city.



THE STANDARD BANK

OF CANADA
HEAD OFFICE - TORONTOEfficient and Prompt Service
in every Department

SAVINGS BANK at all Branches.

MONTREAL BRANCH

E. C. GREEN, Manager

136 St. James Street