

INSTITUTE OF MARINE ENGINEERS

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PRESIDENT : THE RIGHT HON. LORD PIRRIE.

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PREFACE.

A MEETING of the Institute was held here on Monday evening, November 19, presided over by Mr. W. C. Roberts, when a lecture on "Canada," illustrated by lantern views, was delivered by Mr. Graydon Hume (Member). The report of lecture follows herewith.

With a view to encourage the Juniors to commit their thoughts and observations to paper, and at the same time induce in them close examination of details along with accuracy of expression, the Council decided to publish the two Essays by "Veritas" and "Vulcan" on "A visit to the Engineering Exhibition" held at Olympia in the autumn, and for which prizes were awarded by the kindness of Mr. A. E. Battle. The prizes were presented by Lord Pirrie on Friday evening, December 7, and consisted of books and instruments chosen by the respective winners. The Essays will be found following the report on the lecture.

One of the pleasing features of the Exhibition has been that owing to the interest taken in it by the Institute, a sum of £50 was placed at our disposal for benevolent objects. This amount has been allocated to various institutions from which

in past years assistance has been obtained for families of deceased members as follows :—

	£	s.	d.
The Merchant Seamen's Orphanage.	15	15	0
The Royal Scottish Corporation .	10	10	0
The Infant Orphanage, Wanstead .	10	10	0
The Royal Caledonian Orphan Asylum .	10	10	0
The West Ham Hospital .	2	15	0

As the Exhibition was so successful it is proposed to arrange for another next year, which it is hoped will be more representative of all classes of engineering.

JAS. ADAMSON,
Hon. Secretary.

Lecture on Canada

(Illustrated with Lantern Views)

BY MR. GRAYDON HUME (MEMBER),

On Monday, November 19th,

CHAIRMAN: MR. W. C. ROBERTS, R.N.R.

CANADA, as doubtless many of you are aware, is the oldest and nearest British Colony. On June 14th, 1497, Cabot set sail from Bristol (at that early date a leading seaport), discovered the Eastern Coast of North America, and in the year 1536 Jacques Cartie made the first landing on Canadian soil, so that you see the country, so far as we know it, is about 370 years old. Portions of the country had been alternately held by the French and British, until finally, on September 18th, 1759—after the great battle on the Plains of Abraham, when both the English General Wolfe and the French General Montcalm were killed—after a most gallant resistance, Quebec capitulated. Since then the whole Colony has been under British sovereignty. Forty years ago the Confederation of the various Provinces of the Dominion took place, and since then the country has developed by leaps and bounds, until to-day no one can deny the marvellous prosperity of Canada, and the untold possibilities which lie before her. I will not enter

further into historical facts or figures, but would just like for a moment to give you some facts as to its immense size. Canada contains fully one-third of the whole area of the British Empire, but at present only one-fourth of this vast territory is occupied, and but one-eighth is under cultivation. It is larger in area than the United States; thirty times larger than the United Kingdom; eighteen times larger than Germany; eighteen times as large as France; twenty times as large as Spain; thirty-three times as large as Italy; and twice the size of British India. It extends 3,500 miles from east to west, and 1,400 miles from north to south; the estimated population in 1904 being a little under 6,000,000. These figures will enable you to understand something of the vastness of the country. Last year I am informed there were over 140,000 emigrants, and this year that number has been exceeded.

Agriculturally, she has the largest wheat fields in the world. The wheat growing area in the West is calculated at 170 million acres in extent; of this vast territory, not three per cent. is under cultivation. If one-fourth of this 170 million acres were under cultivation, it would be sufficient to supply Great Britain two or three times over, and I venture to think leave enough for home consumption. We in this country would be entirely independent of any foreign country for food supply. Last year's Western grain crop yielded 75 million dollars to 25,000 farmers, or in British currency, £620 each. This amount appears a large return for a farmer, but I am informed it does not come without years of hard work, and Canada has no room for the restful man, spoon-fed weaklings or grumblers, as failures here would certainly prove greater failures in Canada; only those who are willing to put their shoulders to the wheel, and work earnestly with the intention of making a bright and comfortable home for themselves and families; in such cases their labour will not have been in vain, but handsomely rewarded.

If you were to go to Glasgow, Liverpool or Bristol, you would find there large and well appointed steamships ready to carry you to a Canadian seaport, the journey occupying something less than a week, and on arrival, trains as comfortable and as fast as those in Britain are waiting to carry the traveller or colonist to his or her destination. Should your destination be Australia or Japan, there will be a five days' journey

across the Continent to Vancouver, where there are again fast steamers waiting.

The same form of Government exists as in the Mother Country, there being a Governor-General appointed by the King, Upper and Lower House of Parliament, and a Cabinet. Each Province in the Dominion has a Legislature to manage its own affairs : this is similar to England, Scotland, Wales, and Ireland, each having Home Rule, besides the Imperial Parliament.

There is no State Church, all religious bodies are on a footing of equality, and complete religious liberty prevails. In point of numbers the Methodists come first, the Presbyterians next, Roman Catholics third, Church of England fourth, and Baptists fifth, etc. There are no Ecclesiastical rates or taxes except in Quebec, where the Roman Catholic Church has some right over its own members.

The most southerly part is in about the same latitude as Rome, and the most northerly part about the same latitude as Liverpool. Just as between Rome and Liverpool there is diversity of climate, so there is in Canada. The summer temperature is warmer than in England, the summer nights pleasantly cool. The winters are colder than in England, but the air being dry, the weather is healthful and exhilarating. It is a country of bright skies and long sunny days. England's highest average of sunshine will compare favourably with Canada's lowest. The appearance of snow is hailed as seasonable and beneficial ; sleighing parties are arranged for the period of full moon, and the sound of the bells is a merry one. The snow protects the autumn sown wheat from the frost, aids the farmer in hauling his produce to market, and is a help to business and pleasure alike.

The principal industry, and by far the largest, is agriculture in all its forms. Dairying, Wheat Growing, Ranching, Mixed Farming and Fruit Growing, also Experimental Farming, carried on by the Government in the various provinces ; then there are Fisheries, of which the value of the catch in 1901 amounted to considerably over £5,000,000.

During the last few years, Coal (which is plentiful all over), Gold, Nickel, Copper, Silver, Lead, Iron, Asbestos, Mica, and Petroleum have been largely developed. In 1901 the Mineral production was valued at 66,712,708 dollars (£13,300,000), and her Mineral exports 42,310,800 dollars (£8,462,160), over nine-tenths of which went to the United States.

There are also important Rolling Mills and Foundries, where special lines of machinery are manufactured, such as Agricultural Implements, Electric and Mining Machinery; Cotton and Woollen Mills, Tobacco Factories, Sugar and Petroleum Refineries, Breweries and Distilleries. As the country abounds with running streams of considerable magnitude, there is no doubt this power, known as "White Coal," is practically inexhaustible; and, roughly, the St. Lawrence can supply 10,000,000 horse-power and Niagara Falls 5 to 6 millions. As soon as cheaper methods of transmitting electricity have been perfected, the utility of these running waters will be indefinitely increased.

In Railway mileage, Canada nearly beats the Mother Country, having 19,000 miles of track, compared with 22,100 miles in Great Britain. In 1902 its railways had a paid-up capital of £219,770,040, a train mileage of 55,729,856 miles carried 20,679,794 passengers and 42,376,527 tons of freight, and earned £16,733,300, expended £11,468,718, and owned 2,444 locomotives, 2,020 passenger coaches, 76,254 baggage and freight cars.

First class railway fares are 1½*d.* per mile, but excursions at low rates are run every little while for both tourists and settlers; dining cars are attached to the principal trains, and there are railway restaurants at the principal stations. The through coaches are converted at night into convenient sleeping cars.

All the large cities have now Electric street railways and radial lines connecting them with the neighbouring municipalities.

The Telegraph and Telephone systems are in the hands of Government and private Companies, which work in connection with each other. In 1902 there were 35,972 miles of telegraph line, as against 47,786 in Great Britain.

The Postal facilities are good; there is a domestic penny post, and parcels are carried at about the same rate as Great Britain. Money Order and Post Office Savings Banks are also managed by Government. As an evidence of the efficient administration of the Service, the records show that out of 4,973,000 letters registered in 1902, less than eighty were lost, including losses due to fire, wreck and similar mishaps.

As to Finance, the decimal currency has been adopted, the standard unit being the dollar (4*s.*), which is divided into 100

cents. The equivalent of £1 sterling is about 4·87 dollars, subject to fluctuations of exchange within narrow limits. There are thirty-three Chartered Banks, with over 1,000 branches, and a paid-up capital of nearly £20,000,000.

In the matter of Education, every boy and girl may go to an elementary school free of all charge for tuition. Every settled territory provides generously for schools. In the West a school district may comprise an area of not more than 25 square miles, and most districts contain a school population of at least ten, the District Government contributing to the support of the school. For secondary schools a small fee is usually charged to supplement the revenue from Municipal taxation and Government grants. In some of the older provinces there are large residential schools for boys, much like our own great public schools, besides many colleges for girls and young women. Several universities carry on the work to higher grades.

In addition to a free grant of 160 acres, Canada offers to settlers :—

1. A healthy climate.
2. A country where law and order are most strictly enforced.
3. A system of education equal to those of any other country.
4. Churches of various denominations, which are established as rapidly as the land is settled upon.
5. Excellent transportation facilities for marketing.
6. Local markets, with good prices for products.
7. The fullest recognition of civil and religious liberty.

Just a word in conclusion. A girl who has learned any household work at all can always command a comfortable home and good wages in Canada. Cooking meals for the men, making bread and butter, and other household duties.

To quote from a settler near Edmonton, in the North-West territory : “We have but one great need—young women. For marrying, our settlement offers unparalleled advantages, as there are at least fifty to sixty unmarried men, most of them young and in every way suitable.”

We shall now have a number of views placed on the screen, the lantern will be manipulated by Mr. W. McLaren, and my friend Mr. Wick has kindly consented to sing two songs, accompanied on the piano by Mr. E. Cameron.

