

## PERSONALS

CAPT. RAY FRASER ARMSTRONG has been elected town manager of Woodstock, N.B., the first town in New Brunswick to adopt this form of municipal government. Capt.



Armstrong is a son of R. E. Armstrong, formerly editor of St. Andrew's Beacon. Capt. Armstrong is a graduate of the University of New Brunswick, where he earned the B. Sc. degree, and a post-graduate in engineering of McGill University. He has been an associate member of the Engineering Institute of Canada since April, 1915. Before the war, he served in various engineering capacities in Montreal, Edmonton, Banff, Tofield, Coronation, Vancouver and St. John. He was engineer-superintendent

of water works and sewerage at St. John, N.B., when he enlisted in 1916. In France he was transferred to the Canadian Engineers and won his captaincy and the Military Cross in the last big drive.

LT.-COL. H. R. LORDLY, consulting engineer, of Montreal, has been elected a fellow of the Society of Engineers, London, Eng. Col. Lordly is a graduate of Cornell University and holder of the Fuertes medal. He took the 5th Pioneer Battalion overseas in 1916, and also served at the front with the Imperial army. The Society of Engineers is an amalgamation of the former Society of Engineers, established in 1854, and the Civil and Mechanical Engineers' Society, founded 1859. The merger took place in 1910. Under the new charter the membership is limited to one thousand.

## ALBERTA INDUSTRIAL CONGRESS

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high. The Baptiste power, 170 miles from Edmonton, might be developed to the extent of 12,000 horse-power, and another site on the Baptiste River would yield 6,000 horse-power. There are numerous other sources but they are for the present too remote to be of practical value.

Water, said Mr. White, is, however, only one source of power and the prevailing impression that it is cheaper than steam power is correct only under certain conditions. Compared with steam power it has the following advantages:—

- (1) Cost of operation is usually much lower.
- (2) Very few attendants are required in the plant and no fuel is required excepting for heating the building.

On the other hand there are the following disadvantages:—

- (1) Usually the cost of development and installation is much higher than with steam power.
- (2) The situation of the water power plant is fixed by nature and as a rule a transmission line is required to transmit the electric energy to the user.
- (3) The service is less reliable owing to the possibility of (a) injury to the transmission line and (b) lack of power due to unusually low water.

During recent years, owing largely to the introduction of the steam turbine, the capital cost of modern steam plants and of many hydro-electric power developments are coming closer together and some engineers predict that at an early

date steam-electric power will be produced at less expense, other things being equal, than hydro-electric energy. Alberta, he said, contains 87 per cent. of the coal in Canada and is, therefore, in an excellent position to produce steam power.

## Plea for Scientific Development

Dr. R. D. MacLaurin, professor of chemistry in the University of Saskatchewan, spoke on "A Field for Reconstruction." "During the past five years," he said, "Canada's national debt has rapidly increased until it has reached the sum of \$1,950,000,000, incurring interest charges to the amount of \$115,000,000. Our adverse balance of trade with the United States in 1918 amounted to \$292,000,000, and our exchange rate is 5½ per cent. The recommendation by the finance minister of Canada to meet that situation was 'increased production and thrift.' The war made it necessary for Canada to mortgage her resources, human and material, for the purpose of carrying on. The obligations were loyally and willingly assumed, but we are now confronted with the question—How is the liability to be financed? Will 'increased production and thrift' accomplish this?

"For the successful carrying out of a policy formulated for the development of our natural resources, the co-operation of men of scientific attainments is essential. In 1916, in urging the development of our resources, I suggested that provision be made in the case of a research subsidized by the government and leading to a discovery, invention or the improvement of a technical process, protecting the author in the ownership thereof. As government aid had, at least, materially contributed to such discovery, invention or improvement of a technical process, provision should also be made for a royalty to the government on its use for the purpose of maintaining a national research fund.

"The creation by the Alberta government of a ministry of industry, and the calling of this industrial congress by the Industrial Development Association of Alberta, is an outstanding recognition of the value of Alberta's natural resources, and a realization of the urgency for their immediate development.

"The Dominion of Canada ranks second among the nations of the world as regards its potential coal resources, which have been estimated at 1,234,269 million tons, of which 1,059,927 million tons, or 86 per cent. of the total, is possessed by the province of Alberta. Furthermore, the total coal in Great Britain and Ireland, Australia, India, South Africa, New Zealand, Rhodesia, Newfoundland, South Nigeria, British New Borneo, has been estimated at 494,961 million tons; consequently, according to the above figures, Alberta contains more than twice as much coal as Great Britain and her other possessions within the empire."

The speaker then showed how coal had contributed to the industrial development of England, Germany and other countries.

## War Interfered with Progress

The closing sessions of the Congress were held in Edmonton on August 15th. The delegates were entertained at a banquet in the Macdonald Hotel given by the Board of Trade, at which A. M. Frith, first vice-president, presided. Short addresses of welcome were given by Mayor Clarke and James Ramsay, M.L.A. An address by Dr. John A. Allen on the mineral resources of Alberta was interesting and instructive. He pointed out that the mineral resources of the province stood second in the matter of basic wealth, the first place going to agriculture. The last few years had seen great strides toward the development of natural resources of Alberta, he asserted, the value of production in 1917 being computed at \$16,000,000, and in 1918, \$24,000,000. He considered, however, that the vast wealth was yet unknown, and that the north must be looked to for the full determination of the metallic wealth of the west. Here the indications were most favorable. The clay products were so extensive that it has not been possible to develop them. The war caused some hindrance in the matter of production in this regard, for while the value of the products produced in the province in 1912 amounted to one and a half million dollars, at the end of 1917 the output had decreased to half a million.