

the varied fuel-power resources are availed of to a maximum extent.

It is axiomatic, claimed Mr. Challies, that our heat, light and power needs must be considered as one great national problem. While the Pacific and Atlantic Provinces are self-sustaining, the Central Provinces, he said, were dependent on outside sources for coal. The "acute fuel area" is dependent for domestic requirements mainly upon Pennsylvania anthracite, and for industrial needs upon American bituminous coal, as well as upon water-power.

This "area," however, he said, could eventually be made independent of foreign fuel imports and Canada could become self-sustaining, at any rate in respect of her domestic heating requirements.

In 25 years there has been developed and put in use nearly 1,800,000 water horse-power. Only about 10 per cent. of Canada's available water-powers has been developed. If Canada is to reap full benefit from her heritage in white coal there must be a constructive liaison between the Dominion and Provincial Government administrative departments concerned in water-power matters.

#### Electrification of Railways Would Help.

In a paper on railway electrification, Mr. John Murphy, chief electrical engineer of the Department of Railways and Canals at Ottawa, said the elimination of the need for coal at a considerable distance from the mine is a greater measure of relief and of true conservation than increasing mine production, and thereby adding to the load of the already over-burdened railways. Reducing coal consumption automatically releases men and apparatus all along the route from the mine to the consumer, and also helps to prevent railway congestion.

Railway electrification will reduce coal consumption and haulage, and it will greatly improve traffic conditions. It seems, therefore, to be a solution of the problem.

"Railway electrification is, in my opinion, a very pressing, economic, financial and engineering problem—a problem worthy of the best attention of the most highly trained and experienced specialists," said Mr. John Murphy. "From 50 per cent. to 60 per cent. of the coal now used would be saved if electric locomotives were used."

In dealing with "The Possibilities of the Relief of Fuel Consumption in Canadian Industry by the Increased Use of Hydro-Electric Energy," Mr. J. M. Robertson, Director of the Southern Canada Power Company, Montreal, said that economic utilization of power and fuel resources would limit the present use of irreplaceable materials and promote the use of other materials whose use would conserve the assets of a community.

Electric heating is not a present economic possibility, due to high cost and lack of available power, according to Mr. P. H. Mitchell, consulting engineer, who read a paper on "The Possibilities of Lessening Fuel Consumption in Canada by Adoption of Electrical Heating."

#### \$5,000,000 PLATE MILL FOR SYDNEY, N.S.

Ottawa, April 4.—Additional information with respect to the Federal Government's programme for the construction of steel ships to be used in meeting the

shortage of merchant vessels on the Atlantic, and the agreement between the Government and the Dominion Iron and Steel Company looking to the construction of a plant for the rolling of ship-plates in Canada was contained in the statement of Hon. C. C. Ballantyne, Minister of Marine and Fisheries, in committee of supply in the Commons to-night.

Hon. Charles Murphy asked if the shipbuilding programme of the Imperial Munitions Board and that of the Government were in any way connected. Mr. Ballantyne replied that there was absolutely no relation between them. The Minister of Marine said that one difficulty which had confronted him when he first took into consideration the question of steel shipbuilding was that Canada had no plant for the rolling of steel plates. If Canada was to be a ship-building country it was necessary that a steel mill be established in the Dominion. He, therefore, took up with the various Canadian steel companies the question of establishing a rolling mill in the Dominion. The best proposition submitted by the Government was that of the Dominion Iron and Steel Company, of Sydney, which agreed to install a rolling mill which would cost in the neighborhood of five million dollars, all of the money to be furnished by the company.

The contract which the Government had entered into with the steel company was concluded on the following basis, the Dominion Government guaranteed to take a minimum tonnage of 50,000 plates per year for five years. The price per plate for the moment was \$4.15, but this would have to be adjusted every six months on the basis of the cost of steel ingots. The mill would run for six months, turning out steel plates, and then the price to be paid by the Government would be determined. The contract provided that no higher price than \$4.25 should be charged the Government, and if the prices of ingots went down that of steel plates should be lowered accordingly. Government accountants would be placed in the office of the company to see that the prices were adjusted correctly.

The Minister of Marine said that the new mill would probably be in operation in twelve or fifteen months. All machinery which the company had to import would have to pay duty on entering Canada, but this would be refunded to the company. Until the mill was ready to supply steel plates, the shipbuilding programme would be carried on with plates supplied from the United States. The Government had been fortunate in securing 80,000 tons of steel plates at a reasonable price through the British War Mission at Washington.

#### BRITISH-AMERICAN NICKEL CO.'S REFINERY.

Ottawa, April 10.—The British-America Nickel Refining Company, which has been negotiating for property on which to erect a refining plant for some time, has decided to locate on the Hull side of the Ottawa River.

It is learned that representatives of the company have purchased the property known as the old Conroy piling grounds, at Deschenes, upon which a nickel refining plant, to cost in the neighborhood of \$1,000,000, will be erected. The company will employ at least one hundred and fifty hands.

Preparations have already been made for a start on the construction of the plant as soon as the frost leaves the ground.