

yearly from the United States about 4,500,000 tons of anthracite coal, while we export to the United States about 200,000 horse-power of electrical energy. These two quantities on a reasonable basis of comparison are practically equivalent, but if you were to get this coal into Canada, and turn it into electrical power, and then use that power for the generation of *heat* you would only get the heat equivalent of about 450,000 tons, or 10 per cent. When electrical energy gets substantially cheaper,—if it ever does,—it is possible that we will be using more of it for heating, but it is impossible to heat this country with electrical energy, even if all the country's hydro-electric power was available for such purpose. This is because basic physical elements inherent in the problem make it impossible.*

"Fifth.—Let us next refer to wood fuel. Now, what can the municipalities, such as are represented here, do with regard to next year's fuel supply? There seems to be nothing to give immediate local attention to, except wood. It will be necessary to ascertain what quantities of wood can be obtained locally, what local means of transportation, such as motor trucks, suburban railways, etc., can be employed to deliver the wood to suitable centres. Steam railways are bound to be overtaxed. Local supplies, as far as possible, should, in times of stress, be handled locally by local transportation. If the local sources for wood supply are insufficient, it may be necessary for the government to open up wooded tracts. The farmers were the last to use anthracite coal, and will, I expect, be the first to suffer from curtailment of supply; hence they should be fully alive to the seriousness of the situation in order that they may look to the resources of wood in their immediate vicinity, because it will be questionable to what extent the railways will be able to provide cars for sending coal, as heretofore, to the more out-of-the-way country sidings.

The Labor Problem

"With respect to co-operation, there will have to be some active agency instituted, comprising representatives of county councils, farmers' institutes, municipalities, and fuel dealers, qualified to take charge of the distribution. If such committees be appointed, locally, in order to induce to the greatest possible extent individual activity, probably the first difficulty that will be encountered will be the labor problem. There is a shortage of labor on the farms already. In many localities farmers are even disposing of their stock and reducing the acreage of cultivated land because they cannot secure labor. If this condition existed in a European country there would be no difficulty about providing labor. Citizens would be compelled to labor.

"There are large detention camps, also a large alien population in Canada. If it is a case of compulsory action to keep people from freezing to death, some means can surely be found by which to conscript, if necessary, alien labor. Why not secure from detention camps men accustomed to the axe and the crosscut saw? They can be housed in suitable institutions, and, where necessary, placed under armed guards, to be supplied by the militia from soldiers back from the front and unable to perform more strenuous exercise. I make these suggestions with regard to labor, because the problem for 1918-1919 already looks serious; and if it is a question of whether we are to get along or not, without more labor, and labor

can be made available from the sources indicated, then full advantage should be taken of it."

Address by Mr. Clyde Leavitt

The chairman then called upon Mr. Clyde Leavitt, who, dealing with the importance of increasing production of wood, stated as follows:—

"Increased production of wood as a substitute for coal: Substitutes seem to be the order of the day for various articles required for war purposes, direct and indirect. The question of wood has not been considered much. Generally, it requires a reorganization of ideas in order to get back to wood. The question to be considered is what to do for the situation next winter. It is very essential that we look ahead right now as to what can be done next winter. Wood needs to be cut long enough in advance to have a chance to season, so far as is at all possible, and it should be cut during the balance of the winter and during the summer so that the results will be available for use next fall and winter. If wood is used during the fall and spring, it can be made to supplement the use of coal and relieve the demand for it. According to the best advice it is a serious problem, and the only thing to be done is to prepare for what may happen. Every good citizen should relieve the demand for coal by substituting other things, which would provide more coal available for war purposes and relieve the congestion of railways to a very notable extent, and also relieve some of the great trouble experienced with car shortage. It is going to require the investment of capital and thorough organization. Wood cannot be secured by simply talking about it. Someone has to invest money, which will be tied up for a considerable period of time. People may feel that this is the duty of the dealers. No doubt they will do the best that they can to handle the situation to a certain extent, but it cannot be expected that dealers, without any assistance from the people, can handle the whole situation. Many dealers do not feel justified in tying up the large amounts of money involved in laying in sufficient reserves of wood for next winter, and besides, they cannot tell what price they will be able to get next winter. Whatever the dealers are able to do, it must be supplemented by action through governmental authority. Action by city and municipal governments as to this question is being taken in a number of cases already. The city of Ottawa has just voted to buy wood as a relief for next year, and the contract has been let in the Gatineau valley for 14,000 cords of wood at a price of \$5.75 per cord, delivered on railway tracks, to which amount must be added transportation charges and costs of sawing same into stove sizes.

"The city of Winnipeg purchased a supply of 14,000 cords, and the mayor reported that the reserve supply of wood had already proved a big factor in avoiding a fuel famine.

"Brockville reports that they are using some of the Forestry troops' services in cutting wood, which is suggestive to other municipalities that have either gone into the wood question or are considering doing so. What is needed to handle the situation in a broad way, is an organization extending right down through from the Dominion to provincial, and thence down to the municipal governments in the provinces of Ontario and Quebec. The province of Quebec is already going into the question and making a local survey of the wood requirements to ascertain what the situation is, and the Forest service is getting information to find out what can be done to furnish wood in each case. Something of the kind should be done also in the province of Ontario to

*[NOTE.—For a fuller elaboration of this subject see letter "Electricity will not replace Coal," by Arthur V. White, in *The Monetary Times* of March 1st, 1918; also the article by the same author, entitled "Electricity will not replace Coal," in *Industrial Canada*, for April, 1918.—EDITOR.]