

constituents. The fact, therefore, that the moisture is removed in the drying process had not so much bearing on the question, since freight from New South Wales had already been paid on it. The net result of the trials was that the use of pulverized fuel proved almost exactly as efficient as the use of the same fuel in a solid state, the extra efficiency of pulverized fuel in the boiler-furnace being offset by the extra amount of steam used in the feeding and blowing appliances on the engines, and by the fuel used in drying the coal.

“It is now recognized that no economy can be derived from the use of pulverized fuel unless the moisture is removed from the coal in the vicinity of the coal-mine itself before freight and transport charges have been paid on it. This restricts the process to the brown coals in the Eastern district and to the section centred on the mine, and extending to the limiting distance to which the dry coal may be carried without absorbing fresh moisture.

“In practice this means that the fuel would be pulverized and placed on the tender at Morwell, in the vicinity of the mines, and burned within engine-run radius of that point.

“The Morwell coal is a cheaply mined brown coal containing about 50 per cent. moisture, but costing only 3s. 4d. per ton to mine. Three tons of this coal give one ton of pulverized fuel, since about 50 per cent. of the coal is water and 16 per cent. is consumed in the drying process. The labour and overhead charges in drying and crushing average about 10s. per ton of finished produce. The pulverized fuel will therefore cost about £1 1s. per ton delivered on the tender at Morwell, and can be taken as practically equal to the best Newcastle coal in heating-value. There is, therefore, a possibility that locomotive operation can be cheapened on this section by the use of pulverized fuel.

“Unfortunately, only light engines are allowed to run on the section, and difficulty is being experienced in fitting the equipment to these small firebox engines in such a manner as to give reasonable hope of successful and satisfactory results. Another important factor against the scheme is the loss of flexibility and reliability in the locomotive power. The fact that the engines fitted will be made unsuitable for the use of other fuel, and will therefore be restricted to a short section centring on Morwell, will undoubtedly increase the cost of train-operation, but it is difficult at the present juncture to estimate the increase in monetary terms. The authorities consider that the cost of the experiment is justified, but are not at all sanguine of the ultimate success of the scheme.

“The successful use of pulverized fuel depends entirely on such local circumstances as the cost of the coal at the point where engines can conveniently be coaled, the moisture and ash content of the coal, the number of engines involved, and the length and traffic nature and density of the section.

“It is impossible, therefore, to apply broadly any figures derived from the Victorian experiments to New Zealand conditions. The only point that can be stressed is that the Victorian experiments have shown that on large-firebox engines pulverized coal can be burned to give an efficiency equal to that of similar coal (as dried) in the solid form. This conclusion confirms the opinion that I formed as a result of the experiments carried out at Auckland, and is somewhat disappointing to the advocates of pulverized fuel.”

#### STRIKE BY AMALGAMATED SOCIETY OF RAILWAY SERVANTS.

Negotiations with the Amalgamated Society of Railway Servants so far as I am concerned commenced in November last, when the executive council of the Amalgamated Society of Railway Servants interviewed me and asked that wages be restored to the 1921 basis and that a Wages Board be set up. I replied that I was then engaged in a very complete investigation of the conditions throughout the Dominion, and arranged with the council that the requests be left in abeyance until I had had an opportunity of completing my inspection in the following March.

The society reopened the matter in February of this year. The president, Mr. Sullivan, had in the meantime resigned the position, and Mr. M. Connolly was appointed in his place. The council protested against any further postponement