

The machinery in use is out of date and non-productive, and the reports indicate that 60 per cent. is from twenty-five to forty-seven years old, 30 per cent. is from ten to twenty-five years old, and 10 per cent. fairly modern; and in addition much essential machinery is entirely absent.

The reorganization provides for complete electrical installation, and the adoption of accurate costing methods and production schedules.

#### USE OF NEW ZEALAND COAL ON RAILWAYS.

The question of coal requirements in the Dominion has for many years been one necessitating close attention, and naturally, in an undertaking of the magnitude of the railways, which consumes approximately 350,000 tons annually—and mostly bituminous coal—the utmost care has to be exercised in regard to quality and expenditure involved.

The Department has been subjected to a good deal of criticism since the war because of the large amount of bituminous coal it imports from Newcastle. Those interested in the coal-mining industry in the Dominion contend that New Zealand should be self-supporting so far as coal is concerned, and that preference should be given to the local product. But New Zealand has never produced sufficient coal to meet its own requirements. As far back as 1878, importations amounted to 174,000 tons annually; in 1914, 518,070 tons; and in 1919, 455,494 tons. Indeed, the position became so acute in 1917, owing to shortage of supplies, that control of the distribution was inaugurated, and continued until 1921. The diminution in the production of bituminous coal in the Dominion was reflected in the enormous increase in importations, much of which went to build up railway reserve stocks. These had become so depleted in 1919 as to necessitate a very serious curtailment of train services, causing much inconvenience to the public and the loss of considerable revenue.

The uncertainty of local supplies was responsible to a large extent for the increased importations, and the trade so established has been a very important factor in placing the local industry in the position it is in to-day.

The Government has stated time after time that it is fully prepared to utilize local coal to the fullest possible extent, but it has been shown conclusively that with the locomotives at present in use the most satisfactory and economical results are obtained by the use of screened bituminous coal either from the West Coast or Newcastle.

The question is one of very far-reaching importance to the Dominion, and in order to obtain the best possible advice in the matter a Board of Inquiry was set up, consisting of the Engineer-in-Chief, Public Works Department, the Assistant Chief Mechanical Engineer, and the Designing Engineer of Railways, General Secretary, E.F.C.A., an Engineer of the Mines Department, and a representative of the mine-owners and miners respectively, to inquire into and report on the following matters:—

- (1.) Whether, and, if so, to what extent, New Zealand coals are suitable for consumption in locomotive engines run upon the New Zealand Government railways, having regard to—
  - (a.) The quality of such coals for steaming purposes:
  - (b.) The economic working of the railway:
  - (c.) The safety of property on the railway or on any land adjoining the railway:
  - (d.) The possibility and likelihood of the Railways Department obtaining continuous and adequate supplies of such coals:
  - (e.) Any other consideration which may be relevant to the question of such suitability.
- (2.) Whether it is necessary to alter the construction of the locomotive engines at present in use to adapt them for efficient work, using New Zealand coals, and, if so, what would be the approximate cost of such alterations and the time required to complete the same.
- (3.) Whether new locomotives can conveniently be designed and used with New Zealand coal, having regard to the same considerations.
- (4.) As to the extent of the advantages to New Zealand in finance and employment of labour or otherwise, assuming that it is possible at reasonable cost to utilize New Zealand coal, either partially or entirely, on the railways.

The Board was empowered to obtain the fullest possible information, and to carry out such research and practical experimental work as might be found