

INVESTIGATIONS, NEW ZEALAND COALS.

During the year the chemists employed upon coal-research work at the Dominion Laboratory have continued with important investigations, consisting chiefly of the low-temperature carbonization of Blackball and Millerton coals in the Fischer retort, and examination of the products. The results have been published as Bulletin 29 of the Department of Scientific and Industrial Research. The yield of oil from Blackball coal, 39 gallons per ton, is the highest from any New Zealand coal so far treated in the Fischer retort. Work on the composition of such oils is proceeding with a view to discovering more profitable uses than merely as oil fuel.

Further experiments with swelling and non-swelling coals have been carried out, and blends suitable for use in gasmaking can now be recommended.

The progress of hydrogenation of coal and coal oil in older countries is carefully followed by the Research Association. Through the courtesy of Imperial Chemical Industries, Ltd., the yields of oil from several New Zealand coals by hydrogenation have been ascertained. In spite of great advances, it has not yet been established that oil from coal can compete commercially with petroleum oil.

The research work which has been carried out is regarded as not only helpful to the Mining Industry, but is of particular assistance to those who are interesting themselves in projects having for their object the treatment of our coals.

COAL-MINERS' RELIEF FUND.

The Miners' Sick and Accident Funds having been abolished as from the 1st April, 1926, and incorporated in the Coal-miners' Relief Fund, all accident relief payments are now made from the latter fund, which is administered by the Public Trustee.

Notwithstanding that the Public Trustee increased, as from the 1st April, 1927, the rate of interest on the funds by $\frac{1}{2}$ per cent., the Relief Fund shows a diminution of £289 12s. 2d. for the year ended 31st March, 1931, as against a diminution of £1,290 17s. 3d. for the year ended 31st March, 1930. This has been caused by the payments for relief exceeding the receipts for the year.

The interest earned for the twelve months ended 31st March, 1931, was £1,240 17s. 6d., as against £1,311 13s. 9d. for the previous year, while for the same periods the receipts from the $\frac{1}{2}$ d. per ton contributions were £5,579 12s. 1d. and £4,924 3s. 11d. respectively.

The total expenditure for the year ended 31st March, 1931, amounted to £7,110 1s. 9d., as against £7,526 14s. 11d. for the previous year.

The amount standing to the credit of the fund as at the 31st March, 1931, was £23,890 14s. 5d., as against £24,180 6s. 7d. at the 31st March, 1930.

MINING PRIVILEGES.

That renewed interest is being taken in the mining industry is shown by the fact that during the year ended 31st March, 1931, 544 licenses for mining privileges were granted under the provisions of the Mining Act, 1926. Out of this number eighty-one were licenses for claims authorizing the holders to mine for gold. For the same period 125 mining privileges, including thirty licenses for claims, were struck off the registers under the provisions of section 188 of the said Act.

STATE AID TO MINING.

As in previous years, considerable use was made of the Government prospecting drills. They were hired by seven parties, and a total of 6,038 ft. was drilled.

The sum of £9,000 was voted for expenditure by way of subsidies for prospecting.

The balance of unexpended authorities at the 31st March, 1930, and those issued during the year, less cancellations, amounted to £9,217 4s. 11d. Of this amount, the sum of £3,780 19s. 3d. was actually expended during the year, leaving the sum of £5,436 5s. 8d. authorized but not spent at the 31st March, 1931. The subsidies gave employment to 172 persons.