

GEOLOGICAL SURVEY.

The staff of the Geological Survey is being strengthened by additional officers in order to advance more rapidly the structural survey of the Dominion. Increased provision is to be made for printing arrears of Geological Bulletins in order to meet the demand for information in connection with mining and other extractive industries. A special effort is to be made to obtain reliable data in regard to the quantity and quality of our coal resources from the point of view of their suitability for methods of utilization, particularly for oil. The work is being organized in conjunction with the Mines Department, and the chemical tests are to be carried out by special officers of the Dominion Laboratory. Information is being gradually accumulated regarding possible flow oil structures in the Dominion.

In geophysics attention has been devoted mainly to the Reefton area. Extensive geological mapping and geophysical survey of the lode systems have been carried out in this district, comprehensive maps also having been prepared as a basis for a large prospecting programme to be entered upon by the Mines Department. The country is heavy and the work of survey and observations has been difficult, yet much new information has been gained over a wide area, and it is hoped that it may lead to the reopening of several mines and possibly considerable employment in that district.

WEATHER SERVICES AND OBSERVATORIES.

The work of the observatories at Wellington, Christchurch, and Apia has been more closely co-ordinated with the work of the Meteorological Branch. Provision is being made for improved seismological observations and better services in connection with the relative timing of the instruments in various parts of the country, so as to enable a better record to be kept of the epicentres of the various earthquakes.

The staff of the Meteorological Office has been increased to cope with the extra work of forecasting for aviation. Synoptic weather charts are now plotted four times each day, and arrangements are in train for a better service on Sundays and holidays. The weather-forecasting service for everyday purposes and for the special needs of farming should thus be improved, quite apart from the meeting of the responsible duty of providing information rendered imperative by the rapid extension of civil aviation. The Meteorological Office has prepared special climatological surveys relating to those regions which are being covered by the soil and land-utilization surveys.

MANUFACTURING INDUSTRIES.

The manufacturing industries of the Dominion are justly entitled to the benefits of the application of research, and considerable thought has been given to the question of the extension of the technical and research services of the Department for this purpose.

In New Zealand it would appear that this problem could best be met by the formation of a co-operative research association by each branch of industry, some of the funds being contributed from Government sources, the rest by subscriptions from the industrial concerns who are members of the association. Steps are being taken to make such arrangements with a number of industries, in which an endeavour will be made to copy the more successful research associations affiliated with the Department of Scientific and Industrial Research, Great Britain. Because of the limitations of finance likely to be available owing to our relatively smaller industries, every care will need to be taken that the specialists on the staffs of the various research associations, the Dominion Laboratory, and the Universities will be available to give specialized advice to the staffs of other research associations. By this means effective team work will be possible and the best scientific advice brought to bear on the more complicated technical problems of industry.

In addition to the promotion of research associations, steps are being taken to establish a general bureau of technical information regarding problems of industry, which, in addition to having two chemical engineers appointed to its staff, will work in association with the Director of the Dominion Laboratory and his staff.