

SECRETARY'S REPORT.

The Research Council has held four regular meetings during the year, at which there have been full attendances, and, in addition, there have been numerous committee meetings.

The personnel of the Council is as follows :—

Mr. George Shirlcliffe, O.B.E. (Chairman).

Professor Henry George Denham, D.Sc., M.A., Ph.D., Professor of Chemistry, Canterbury College, Christchurch.

Mr. Quentin Donald, Featherston.

Professor John Malcolm, M.B., Ch.B., Professor of Physiology, University of Otago, Dunedin.

Mr. Theodore Rigg, M.Sc., Assistant Director, Cawthron Institute, Nelson.

Mr. Charles Rhodes, Manager of the New Zealand Mines Trust, Auckland.

Mr. Hugh Vickerman, D.S.O., O.B.E., M.Sc., M.Inst.C.E., Wellington.

Dr. Ernest Marsden, M.C., D.Sc., F.N.Z.Inst. (Secretary).

On the 11th November, 1931, an amendment to the Scientific and Industrial Research Act, 1926, was enacted, which made provision for an alteration in the personnel of the Research Council and the establishment of two special divisions to deal with Industrial and Agricultural problems respectively.

The Industrial Division of the Research Council, now titled "The Development of Industries Committee," was constituted early this year, and held two meetings, at which the main lines of development for certain New Zealand secondary industries were given consideration.

The expenditure of the Department during the year was as follows :—

Permanent services—

	£
Dominion Laboratory (with branches)	12,553
Geological Survey	5,573
Meteorological Office	7,639
Petrological Laboratory (four months only)	157
Apia Observatory	2,611
Dominion Observatory	1,808
Magnetic Observatory, Christchurch (8 months only)	1,187
Lincoln College	3,616
Research investigations (including contributions)	35,246
Head Office, Publications, Research Scholarships, and miscellaneous..	6,744

The grants made by the Empire Marketing Board and industries in support of research investigations amounted to a total of £20,845 for the year.

Owing to uncertainties of finance, the Department has shared the general difficulty of working steadily towards definite goals, but, fortunately, interference with programmes has been confined to a minimum, and these difficulties have been kept as far as possible from the actual workers. Moreover, the general realization of the economic position has had the effect of stimulating one and all, and of bringing prominently to the realization of each worker the need for putting forth his best efforts for the common good. This realization has shown itself in the intensity of his efforts, and has evoked the genuine spirit of true team work. It can truly be said that research workers at all centres, and under various authorities, are working to an increasing degree in active co-operation and helpfulness towards the solution of the many national problems coming within their purview.

The Department was established to undertake scientific work and investigations proper to Government activities. Its purpose was also to stimulate in the country generally, by example and otherwise, the idea of the value of the research method and the importance of steady and long-range research in connection with our main industries. It was particularly necessary to show that these questions of research must be regarded as being part of and vital to the organization of industry. Moreover, it was imperative that these researches be fostered and directed by industrialists themselves, with such assistance as the Government, with its special facilities, and with its broader outlook of the welfare of the whole community, might be able to give. To be successful, this task involves patient, steady, slowly penetrating effort—industry cannot be driven—the best that can be done is to endeavour to encourage leadership through the industry's most enlightened members. A broad view of the situation, compared with six years ago, shows definitely that the scientific outlook of industry, and of the community, has grown, and with it the realization that industries are more stable on such a basis, more resilient, and that progress must be built up on intelligent forward moves and initiative, based on the fact-finding methods of research.

Apart from the encouragement of the research idea, there remains the problem of inculcating the principles of the proper amount of co-operation between units of an industry in pursuit of research, fundamental to all. This is only part of the whole principle and spirit of that co-operation, which does not sacrifice individual initiative, but rather provides for it a surer basis and removes competition to the efficiency of the methods by which the results of fundamental research are applied in industry.