

intervals with a camera with a lens of very great focal length, the source of light being a mercury lamp. The ultra-centrifuge, which will be available for any research worker in the University, is, under the direction of Prof. R. A. Peters, in the charge of J. St. L. Philpot, Balliol College. He will employ it in a general investigation of enzymes as proteins, and particularly to see how the alteration by chemical reaction of certain groupings on the enzyme affects the stability of the particle itself.

Scientific Research in New Zealand

THE tenth annual report of the New Zealand Department of Scientific and Industrial Research covers the year 1935-36, and in addition to the Minister's statement and the Secretary's report, includes reports of the various research committees as well as of the Dominion Laboratory, the Geological Survey Branch, Meteorological Branch, and the Dominion, Apia, and Magnetic Observatories (Wellington: Government Printer, 1936. 2s. 3d.). Of the expenditure of £91,344 during the year, £46,306 was on research investigations, £11,225 of which was for industries and £21,360 in the Consolidated Fund. Plant research plays a large part in the activities of the Department, and has now been organized so that each Division is situated in the part of the Dominion most affected by its activities. General co-ordination of the work on animal health and nutrition has also been effected, and it is hoped that a comprehensive scheme of attack on these problems will be evolved during the year. A systematic soil survey of New Zealand is in progress and a survey of the tung oil industry will shortly be undertaken. Soil surveys form an important part of the investigations which are being made in the development of the citrus industry.

THE first organization to be established under the Department was the Dairy Research Institute, and this has already attacked with success certain major problems in the manufacture of butter and cheese. Strains of starter bacteria which afford the best type of Cheddar cheese have been isolated, and much information on the action of bacteria in the ripening of cheese has been accumulated. Valuable research by the Wheat Research Institute has resulted in the breeding of a new hybrid which avoids the necessity of importing strong wheats for blending purposes. An outstanding feature of the fruit research in the year has been the proving of a successful method of controlling corky-pit disease of apples by the application of boron compounds. Steps are being taken to establish research associations for various industries on the lines of those in Great Britain and also to establish a general bureau of technical information for industry. Recently the Government has taken over the responsibility for the development of industrial standards. The work of the Meteorological Office has been considerably affected by the inauguration of regular air services in New Zealand, and the system of weather observation and reporting is being considerably increased.

League of Nations and Nutrition

AT a meeting of the Expert Committee on Nutrition set up by the Committee of the League of Nations, held on December 8-10, 1936, under the chairmanship of Prof. H. Laugier, methods and results obtained as an outcome of the report on the physiological bases of the subject and a programme of research outlined, were compared and a plan of action established. Agreement was reached as to the technical methods to be applied, and a plan of future studies for co-ordination by the Health Organization was drawn up. Three methods are recommended for assessing the state of nutrition of children of pre-school age and school age and of adolescents. The first method is essentially suitable for practical work, such as the determination of the state of nutrition of large numbers of children, and for this purpose the preparation of record cards giving particulars of age, sex, physical appearance, weight and height is recommended, as well as a clinical examination of each child bearing on the colour of the skin, the state of the teeth, the condition of the subcutaneous fat layer, the state of the muscles and any signs of abnormal fatigue.

THE second type of inquiry is intended for more thorough and more scientific investigation covering smaller groups, and will include an inquiry into the child's food intake and the economic and social status of its family. A thorough medical examination and, so far as possible, special measurements and special tests, for example, on protein content of blood, pre-deficiency tests, etc. The third type of inquiry is intended to study scientifically the disturbances to which all the functions of the body are subjected when the diet is quantitatively or qualitatively deficient. A further meeting of the Expert Committee on Nutrition held on December 11-12, 1936, under the chairmanship of Prof. E. Gorter was concerned with nutritive food requirements during the first years of life. These requirements were defined as regards calories, proteins, vitamins and iron, indicating to what extent milk, cereals, vegetables, eggs, meat and broth should be used to provide a suitable diet for infants, and remarks on the quality and preparation of food were also made.

Science and Social Problems

A RECENT broadsheet issued by Political and Economic Planning (PEP) directs attention to the welcome evidence afforded by the malnutrition controversy of the recognition that science can make important and indispensable contributions to the solution of social problems. The present broadsheet merits attention not merely as presenting a concise summary of experiments and studies bearing on the known facts of nutrition, but also for a helpful discussion of the main points of controversy or misunderstanding. This is particularly true of its efforts to disperse some of the confusion caused by the use of the word 'malnutrition' in several different senses. Available evidence shows that even in the lowest income groups, shortage of calories cannot affect