

the position has become less unsatisfactory or the need for drastic reform diminished. On the contrary, he stated categorically that the specific recommendations of this report, which were repeated in a 1944 policy report, have still to be implemented fully, although this year's annual report of the Library Association remarked: "technical colleges are now very much aware of the necessity of building up a strong and efficient library for the use of students". Mr. Ardern's paper directs attention to a defect in the present provision for technical education which calls for immediate action. It is not entirely a matter of buildings and accommodation: more generous provision for books and periodicals could be made without delay, and Mr. Ardern's indication of the value and functions of trained staff should assist in obtaining from the scientific and technical world, as well as from the Library Association, support for a more generous and enlightened staff policy which it is false economy to delay.

NEW SOUTH WALES UNIVERSITY OF TECHNOLOGY

THE first graduation ceremony of the New South Wales University of Technology (see *Nature*, 165, 477; 1950) was held on March 15 in the Great Hall of the University of Sydney. It is of interest to note that, since the University of Sydney is celebrating its centenary this year, there is almost one hundred years difference between the ages of the two institutions. The honorary degrees of D.Sc. were conferred upon the chancellor of the University of Sydney, Sir Charles Blackburn, Viscount Nuffield and Prof. M. L. E. Oliphant. Fifty-seven graduates were admitted to degrees by the president of the New South Wales University of Technology, Mr. Wallace C. Wurth, the degrees being distributed between engineering and science. Those present at the ceremony included H.E. the Governor of New South Wales, Lieut.-General Sir John Northcott, the Premier of New South Wales, the Hon. J. McGirr, the Minister for Education, the Hon. R. J. Heffron, the Primate of Australia, Archbishop Mowll, Cardinal Gilroy, representatives of the Services, and senior representatives of education and industry.

The honorary graduates addressed the large gathering, stressing the pioneering nature of the University of Technology and the co-ordination which must exist between other universities in Australia. The director of the University, Mr. A. Denning, in his report stressed that "in the early history of the University the reliance on the close co-operation and support of all branches of industry was not misplaced. . . . The University thanks the many members of the advisory panels who have given valuable time to help the University. Every effort is being made to ensure that each student receives such stimulation as will enable him to develop his latent capabilities for work and thought and to fit him to assume social and political responsibilities inherent in communal life".

Appointments to the following chairs in the University have recently been announced.

Nuffield Research Chair of Mechanical Engineering. As the result of a grant of £25,000 made from the Nuffield Foundation, a research professorship of mechanical engineering was established in the University, and Prof. A. H. Willis has been ap-

pointed to the chair. Prof. Willis obtained his B.Sc.(Eng.) with first-class honours and his Ph.D. from the University of London and was awarded a Whitworth Scholarship. He spent five years as a member of the engineering staff of King's College, London, and during the Second World War worked as a production engineer with Lagonda, Ltd., where he was concerned with the production of shells, flame-throwers and other miscellaneous munitions. His association with the University of Technology dates from his appointment as senior lecturer in mechanical engineering in January 1950, and later as associate professor in mechanical engineering.

Chair of Metallurgy. Prof. R. H. Myers will occupy the chair of metallurgy in the University as from May 4. During the past few months Prof. Myers has been surveying the metallurgy developments in the United States and Great Britain prior to joining the University. In view of the potential metallurgical development in New South Wales, the establishment of a Department of Metallurgy will be looked upon with considerable interest.

Chair of Applied Physics. Dr. C. J. Milner, who is at present head of the Physics Section of the British Thomson-Houston Research Laboratory, Rugby, has been appointed to the chair of applied physics in the University. Dr. Milner, who is the son of Prof. S. R. Milner, emeritus professor of physics in the University of Sheffield, is a graduate of the University of Cambridge, where he worked under the late Lord Rutherford, Sir John Cockcroft and Prof. P. Kapitza. His main fields of activity have been in vacuum physics, electronics, physics of solids and spectrometry. During the Second World War, he was concerned in the development of ultra-short-wave klystron and magnetron valves, and infra-red devices.

The first annual report of the New South Wales University of Technology*, which covers the year ended June 30, 1950, reviews also the development of the University since the establishment of the Developmental Council was approved by the Government on July 8, 1947. The incorporation of the University sprang from the recognition by the State of the need for providing facilities for training and research in applied science and technology which would ensure an adequate supply of highly skilled scientific men and technologists for its expanding industries and for the continuous advance of scientific knowledge. The Developmental Council was established under the chairmanship of the Minister of Education to exercise immediate control over the University, and to recommend the principles that should be established for co-operation between the University and industry in industrial research and between the University and other educational and scientific bodies, including the University of Sydney. The Council was also to make recommendations regarding the appropriate structure for the future control of the University and, in the light of such inquiries, including a survey of existing technical college courses from the point of view of the needs of industry, to draft legislation for the incorporation of the University.

While proposing to establish the University as an independent body, in view of restrictions imposed by post-war scarcities of building materials and equipment, the Council decided to start by utilizing the existing resources of the technical education

* New South Wales University of Technology. First Annual Report of Proceedings for the Year ended 30th June 1950. Pp. 25. (Sydney: Government Printer, 1951.)

system. Accordingly, while substantial achievements like the establishment, in March 1948, of first degree courses in civil, electrical, mechanical and mining engineering, and, in March 1949, of degree courses in applied chemistry, and chemical engineering and the first postgraduate course in electronic engineering are recorded, and some indication is given of the research projects being undertaken in physics, applied chemistry and branches of engineering, the picture presented in this report is rather one of the development of a college of technology than of an autonomous university as such an institution is understood in Great Britain. The general principle of a Faculty of the Humanities and the establishment of a chair in this field have been approved, and so far as possible the course in humanities is to be common to all faculties. Language and literature, economics, history and psychology are to be included in all undergraduate courses; a further feature is the programme for extensive practical training in industry which supplements lecture and laboratory work.

SOUTH AFRICAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

ANNUAL REPORT FOR 1950-51

THE sixth report of the South African Council for Scientific and Industrial Research* covers the year ended October 4, 1951, and includes the accounts for the financial year ended March 31, 1951, together with lists of publications during the year by the Council or its staff or by holders of research awards from the Council, and also details of the five senior and fifty-nine student research bursaries and twenty-one assistantships awarded during the year. The permanent staff of the Council now numbers three hundred and fifty, with about a hundred and twenty temporary members, and subsidies to the six industrial research associations and to the South African Institute for Medical Research totalled £46,000. Fellowships for long-term investigations into marine stand-oils, the processing of groundnuts and the treatment of dairy wastes have been established by industrial firms, and three by the Institution of Municipal Engineers for investigating methods of preventing the corrosion of cement sewers; and one, sponsored by the blue-lime manufacturers, on the production and uses of blue lime, is in its third and final year. The National Housing and Planning Commission has created five fellowships for research into the methods of reducing the cost of native-African housing.

Selection and classification procedures established by the National Institute for Personnel Research are now being applied as a normal recruiting medium by the Defence Forces and several gold-mining groups. The laboratories of the Paint Industries Research Institute in the new science block at Howard College, University of Natal, Durban, were opened in May 1951, and the foundation stone of the building for the Sugar Milling Research Institute was laid in June 1951. The Bituminous Binder Research Unit started operations early in the year, and temporary accommodation for the South African Wool Textile Research Institute has been provided by Rhodes

* South African Council for Scientific and Industrial Research. Sixth Annual Report, 1950-51. Pp. viii + 80. (Pretoria, P.O. Box 395; 1952.)

University, Grahamstown. Eight medical research units supported by the Council are working smoothly, and a ninth, dealing with applied physiology, has been taken over by the Transvaal Chamber of Mines.

In the National Chemical Research Laboratory, X-ray diffraction technique and differential thermal analysis have permitted the identification of the occurrence of attapulgite, a clay with many industrial uses. A survey of Transvaal chromites is almost complete, and fundamental work on the spontaneous combustion of coal has been continued. The mechanism of decomposition of dolomite at 600-900° C. has been elucidated, and research on seaweeds initiated. A survey of the Berg River in the Cape area has thrown much light on the breeding seasons, periods of maximum abundance and preferences in substratum of individual species of flora and fauna of the stream. The behaviour of superphosphate in South African soils is being studied with the aid of radioactive phosphorus.

In the National Physical Laboratory, a recording photometer is being developed for astronomical sequences, an integrating photometer for the accurate measurement of light from very faint sources and a microphotometer for rapidly scanning photographic plates are being designed. Acoustic equipment for determining the elastic properties of samples of concrete has been developed for the National Building Research Institute, and further work has been done on checking the accuracy of the equipment used in maintaining the International Temperature Scale. A Consolidated-Nier mass spectrometer has been used for studying the exchange of carbon between gases and solid carbonates and to determine small amounts of hydrogen in gases in which carbon dioxide and nitrogen are present. A simple and powerful method has been developed for predicting the number of carbon atoms in the chains of synthetic crystalline hydrocarbons in which 'basal reflexions' at small angles of glancing incidence are accentuated so that they can be measured on the Geiger-counter spectrometer. The Telecommunications Research Laboratory has been concerned mainly with the study of radio propagation and radio-noise levels and with the development of a crystal-controlled all-wave receiver. The National Building Research Institute has continued its work on the use of high-magnesia limestone and the transmission of heat through the elements of buildings. A new advisory committee has been appointed for the National Institute for Personnel Research, and the eight medical research units have consolidated their work, that on amebiasis having established the extreme value in immediate control of the antibacterial drugs.

NATIONAL RESEARCH COUNCIL OF CANADA

RECENT APPOINTMENTS

THREE appointments to the National Research Council of Canada have recently been announced as follows: Dr. E. W. R. Steacie to be president of the Council in succession to Dr. C. J. Mackenzie, who has been appointed president of the newly created Crown Company, Atomic Energy of Canada, Ltd. (see p. 1037); Dr. Leo Marion to be director, jointly with Dr. Steacie, of the Division of Pure Chemistry at the National Research Laboratories; and Dr. Ira E. Puddington to be director of the