

life, and the need to do so is in itself a stimulant to thought not only about the immediate problems of the profession but about the deeper problems of purpose, proportion and responsibility". For Wolfenden, "the restlessness of the human mind is a divine restlessness; and however solid these brick walls may seem to be, it is part of man's nature that he cannot resist banging his head against them. For it is not in the problems of our relations with other human beings or of our relations with the world of Nature that the ultimate problem lies; it lies in our relations with what is neither of these. What is very clear is that an education with this basis will not end at school-leaving age, or with the acquisition of a university degree. There is no reason to suppose that it ends with the grave".

Electrotechnology in Australia

THE annual report for 1957-58 of the Division of Electrotechnology of the Commonwealth Scientific and Industrial Research Organization of Australia describes the three main activities of the Division: the maintenance of the Commonwealth standards of measurement of electrical quantities, including the standard of frequency; calibration of electrical and magnetic instruments; and research on the improvement and extension of the electrical measuring and standards facilities and on the dielectric properties of insulating materials and the microwave spectra of gases. New apparatus installed includes a small vacuum evaporation plant; a calculable capacitor and associated measuring equipment; and facilities for making impedance and other measurements at microwave frequencies chiefly within the 9,000 Mc./s. range. The hyperfine structure of the microwave spectra of heavy-water molecules is being analysed on the high-speed digital computer *Silliac* to determine more accurately the electric field gradient at the position of the deuteron nuclei in these molecules and to estimate the magnetic constants governing the smaller effects observed in the spectra. Special furnaces have been constructed to assist in the determination of the conditions required for the successful growth of large single crystals of organic materials, and the study of the dielectric properties of polycrystalline materials and liquids has been extended. Both experimental and theoretical work has been carried out on dielectric breakdown in the alkali halides and a theoretical study based on the harmonic motion of the interacting electron-lattice system has been made of the superconducting specific heat and transition temperature of multi-valent metals.

Wool Industries Research Association

THE report of Dr. A. B. P. Cassie, director of research of the Wool Industries Research Association, presented to the annual general meeting of the Association on April 7, includes, besides details of the membership of the Council and Committees and a list of staff, a bibliography of publications in 1958, including lectures given by members of the staff, patents and some forthcoming publications (Wool Industries Research Association, Report of the Director of Research for 1958. Pp. 35. (Publication No. 212.) Headingley, Leeds: 1959). Modifications have been made to the pilot scouring plant, while methods for determining oil and grease in scoured wool and tops have been extensively investigated. Further work on the pulling of rags has confirmed that there is little, if any, difference in the quality of the

yarns or fabrics prepared from the differently treated yarns. The work on examining the state of a yarn at the instant of break during spinning is now almost complete, and a technique has been evolved for determining whether the fibres slip or break when the yarn breaks for use with 'Fibro' but not for wool. Further experience with wool/'Terylene' blends indicates that there can be no guarantee against the tight ends or 'fiddle-string' fault developing, as procedures which are entirely satisfactory with all-wool yarns can give rise to snatch and stretching of wool/'Terylene' yarns without breakdown, but a procedure which seems to provide reasonable protection during cone-winding is indicated. The review of milling was expanded and work continued on the scouring of wool/'Terylene' worsted cloths. The study of damage to wool in dyeing was extended to coarse wool, and work was restarted on the efficacy of dieldrin in moth-proofing. The first part of the work on the examination of the washing process of wool by microscopical methods was completed, and determinations of the latent heat of sublimation of nitrogen-substituted amides, which contain a peptide group similar to that in keratin, suggest that the strength of this bond is 4-5 kcal. Homogenous membranes are now being used to study the effects of organic solvents on the rate of diffusion of dyes into keratin.

East Africa High Commission: Report for 1958

APPROXIMATELY half the illustrated and very readable annual report for 1958, of the East Africa High Commission (pp. iv + 92. Nairobi: Government Printer, 1949. 5s.) is concerned with research and scientific services, including some material to be found in "Colonial Research, 1957-58" and in the annual report of the East African Industrial Research Board as well as in "The Colonial Territories, 1957-58". Although more limited territorially, it has a somewhat more popular appeal and is well designed to show the important contribution which scientific research is making to development and welfare in East Africa. This is particularly true of the work of the East African Agriculture and Forestry Research Organization, the Veterinary Research Organization, the Fishery Research Organization, the Marine Fisheries Research Organization, the Trypanosomiasis Research Organization, the Virus Research Institute and the Institute for Medical Research. Expenditure on research was £806,721 and on the Desert Locust Survey £438,982, but it is stated that for the past two years difficulty in recruiting suitable technical and scientific staff has been the main hindrance to the expansion programme.

Acta Biologica Cracoviensia

A NEW botanical journal, *Acta Biologica Cracoviensia* (Sér: Botanique) (1, No. 1; 1958), has been published for the Polish Academy of Sciences under the editorship of Mme. Prof. M. Skalinska (Cracovie. Inst. d'Anatomie et de Cytologie des Plantes; Rue Jana 20). The contents of this first issue are partly palaeobotanical, partly cytological. An article on the interglacial flora in Ganovce travertines in Eastern Slovakia is contributed by V. Kneblova; and there are short descriptive accounts of the genus *Cunninghamia* in the European Miocene by W. Szafer and of *Salvinia* and *Azolla* from the same geological horizon in Poland by M. Lancucka-Srodoniowa. The several cytological investigations, by Prof. Skalinska and her colleagues or pupils, deal with the curious behaviour