

polychromator requires no adjustment for temperature and can accommodate thirty-six channels; but the electronic console is built in units so that the polychromator can be built up from a minimum of twelve channels by the addition of units of six.

Units and Systems of Weights and Measures in the United States

THE subject of weights and measures is of wide interest, and many requests for information on both the customary and metric systems of weights and measures are received by the United States National Bureau of Standards from teachers, students and the general public. To serve this need, the Bureau has prepared Circular 570, "Units and Systems of Weights and Measures: Their Origin, Development and Present Status", by Lewis V. Judson (pp. 29. Washington, D.C.: Government Printing Office, 1956; 25 cents), which brings together in a convenient form much of the information that was previously available in separate mimeographed leaflets. The essential differences between the British and United States systems are clearly explained. The origin and early history of units and standards are discussed; with regard to the metric system it is mentioned that, though the use of the system was legalized in the United States by Act of Congress of 1866, it was not obligatory, and at present the Bureau neither advocates nor opposes its compulsory adoption. To satisfy the considerable interest shown in the maintenance and preservation of the United States national standards of length and mass at the Bureau, a special door, fully protected by an alarm system, was installed during 1955 so that during working hours the vault in which the standards are kept can be viewed by those interested. At other times the steel outer doors are locked. The circular concludes with ready-reference conversion tables dealing with lengths, areas, capacities and weights. For scientific workers and industrialists requiring more extensive information, the Bureau has published "Units of Weights and Measures" (Miscellaneous Publication 214).

Catalogue of Optical Glasses

OPTICAL glass has been made at the Smethwick (Birmingham) glassworks of Chance Brothers, Ltd., since 1848, though since 1948 the main production has been concentrated at the war-time 'shadow factory' at St. Helens, Lancashire, formerly used by Umbroc, Ltd. Some melts are still made at the Umbroc Works by the 'classical process'—that is, each pot of glass is cooled slowly to produce as many large lumps as possible for subsequent moulding into slabs; but another method now employed to an increasing extent for the production of colour filter glass in sheet form or of raw material for the production of lens blanks is to roll the molten glass into sheets $\frac{1}{4}$ – $\frac{3}{4}$ in. thick. The classical process is also used at the Smethwick works for certain glass types; but, in addition, platinum pots of 12–16 l. capacity are used for melting rare-earth and other special glasses. Full details of the physical properties of the various glass types produced, together with available sizes and batch reproducibilities, are listed in Catalogue O.S.16, which has recently been issued. The glass types are arranged in groups and described as 'crowns' or 'flints' with a generally accepted, but arbitrary, division at $V = 55$ (V represents the reciprocal dispersive power or constringence) for indices (n_d) of refraction in air for the sodium- D line

below 1.6, and at $V = 50$ for higher indices. Nine spectral lines are used for determining the optical properties, and routine measurements of the refractive index and dispersions of each production melt are made with a Hilger-Chance precision refractometer.

South Australian Museum, Adelaide: Report for 1954–55

THE annual report of the South Australian Museum for 1954–55 (pp. 11. Adelaide: Government Printer, 1956) records the retirement of the entomologist, Mr. H. Womersley, and his appointment as honorary acarologist. Dr. E. T. Giles has been appointed entomologist, and he reports that a considerable amount of re-organization has been undertaken since his arrival. The apparatus and equipment have been rearranged and the library reclassified to give a more logical sequence. Mr. H. Womersley was in charge of a scientific expedition to New Guinea, where collections of mites, largely consisting of new discoveries, were made and brought back to the Museum. Mr. William A. Cassidy, a Fulbright research student from the University of New Mexico, has spent a considerable time studying the numerous meteorites in the collections of the Museum.

Ciba Foundation, London: Report for 1955

THE annual report for 1955 of the Ciba Foundation for the promotion of International Co-operation in Medical and Chemical Research (pp. 43; from the Foundation, London; 1956) gives details of the five discussion meetings and the four sessions of the quarterly clinical forum held during the year, as well as particulars of the seven international conferences, the proceedings of four of which have been published in book form. The three on ageing in transient tissues, on bone structure and metabolism, and on paper electrophoresis, respectively, were due for publication. Five scientific film sessions were also held during the year, and the seventh annual lecture was given in Stockholm by Prof. H. Olivercrona on "Hypophysectomy in Diabetes". Accommodation was provided at the Foundation for nearly eight hundred visitors from thirty countries who came to London in connexion with their scientific work. Six British medical graduates were granted short-term bursaries for work in France, and the first seven international awards were made for papers descriptive of research relevant to the problems of ageing, a field in which the Foundation is attempting to encourage long-term research by younger workers. Besides particulars of publications of the Foundation, the report includes some notes on the library, which was ready for visitors early in June, and lists of holdings and of periodicals received.

Grants for Education in Plastics Technology

THE Trustees of the Plastics Industry Education Fund have recently announced their plans for the support of education in plastics technology during 1956–57, among which are a number of new projects. In addition to the grants for the seven students at the Borough Polytechnic, London, who last September started a full-time course for two years leading to the diploma of the Plastics Institute, a further £1,000 has been allotted for grants to students living in the London area who wish to take up this course next September. The Birmingham College of Technology is being offered £1,000 to start a 'sandwich' course in plastics technology which will last four