

The Yearbook of the Universities of the Commonwealth, 1957

Pp. lx + 2067. (London: Association of Universities of the British Commonwealth, 1957.) 73s. 6d.

THE aim of the Association of Universities of the British Commonwealth, as the authority responsible for the production of this useful handbook, is that of providing basic information on all the universities and university colleges of the Commonwealth, their activities and their staffs, in a single volume for ease of reference. The present rate of growth, both in number and in size, of the universities in Great Britain, and indeed throughout the Commonwealth, has, however, produced a concurrent expansion in the "Yearbook", which now has more than two thousand pages, compared with less than six hundred in 1921. It has become apparent that the framework of contents and format of the volume could with advantage be altered, the better to accommodate the large increase in information bound between its covers. It is stated in the preface that plans are accordingly now being made for the next issue to appear in a completely revised form, with a different shape and appearance.

Meanwhile, the contents of the present issue have been revised up to May 1956, and in some cases to a rather later date. The University of Leicester still appears among the university colleges, Exeter has taken its place among the English universities, and the entry for the new University of Khartoum—although the Sudan has now no formal connexion with the Commonwealth—is retained in an appendix which also includes the universities of the Republic of Ireland having historical associations with British institutions. Two new Indian universities appear for the first time—Thackersey Women's University of Bombay and Sri Venkateswara University, Tirupati—and a detailed entry is included for the University College of Rhodesia and Nyasaland.

The "Yearbook" remains a source of reference indispensable to all who are concerned with academic, scientific and editorial affairs.

Chemistry in the Service of Man

By Prof. Alexander Findlay. Eighth edition. Pp. xx + 326 + 36 plates. (London and New York: Longmans, Green and Co., Ltd., 1957.) 25s. net.

THIS classic was first published in 1916. For the new edition the publishers have used a larger format and have increased the number of illustrations. The 390 pages, each $4\frac{7}{8}$ in. \times $6\frac{1}{2}$ in., of the 1947 edition now become 326 pages, each $5\frac{3}{8}$ in. \times $8\frac{1}{2}$ in., but in addition there are now twenty-seven line drawings and thirty-six half-tone plates.

Responsive to the shift of emphasis consequent upon the synthesis of many new materials of economic and industrial worth, Prof. A. Findlay has rearranged and rewritten much of the book. He has deleted the old Chapter 2 on atomic structure, and has incorporated the matter in a new Chapter 17 dealing with radioactivity, tracer elements, nuclear chemistry and the right use of nuclear energy. The two chapters on synthetical chemistry, formerly numbered 15 and 16, have undergone much revision and now appear under these new chapter numbers and titles: Chapter 13, "Dyes, Perfumes, Drugs and Insecticides", and Chapter 14, "Artificial Fibres and Plastics". Materials and phenomena in the public eye, such as silicones, 'Terylene' and adsorption, all receive due attention. Forty years ago the publication of this book caused

many science teachers to see chemistry in a new light and helped them to promote a better presentation of their subject. Brightened with the new illustrations and everywhere brought up to date, the new edition should delight and inspire a new generation.

Polyesters and their Applications

By the Bjorksten Research Laboratories, Inc. Pp. vii + 618. (New York: Reinhold Publishing Corporation; London: Chapman and Hall, Ltd., 1956.) 80s. net.

THIS book reviews the period to June 1954 with a supplement to early 1956. Its principal value is for reference, since more than half consists of an annotated bibliography. Polyesters are defined as the polycondensation products of dicarboxylic acids and dihydric alcohols, thereby excluding polymers with side-chain ester linkages. The introductory theoretical chapter is unsatisfying, brief and in places inaccurate. For example, the molecular weight distribution of the products of a polycondensation is incorrectly stated, and it is surprising to see polystyrene described as a highly polar molecule.

Unsaturated, fibre-forming saturated and di-isocyanate modified polyesters are treated in the next three sections. In places excessive detail is given, as in lists of potential curing agents, whereas the polyurethanes receive only eight pages. Reinforcing fibres are interestingly discussed; the expectation of a good treatment of the sizing and finishing of glass fibres was fulfilled. To regard fibres merely as improving the strength of a resin seems an incorrect emphasis, and a discussion of fibre orientation is lacking. The chemical reactivity of glass fibres is greater than might be inferred by the reader of this section.

The reproduction of data sheets and the discussion of specifications other than those of the well-known American Society for Testing Materials and Federal series remind British readers of the source and principal users of this book. A brief chapter on health hazards should fulfil a useful purpose.

E. W. RUSSELL

Soil Physics

By Dr. L. D. Baver. Third edition. Pp. xvii + 489. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1956.) 62s. net.

"SOIL PHYSICS" was originally designed as a text-book for graduate students in agronomy, but over the years it has become something more. Advisory and research workers, including professional physicists, have used it as a standard reference book, and, perhaps somewhat unfairly, have criticized it because the treatment of many topics was not thorough enough to meet their specialized needs. The new edition will silence some of, but not all, this criticism, for it is more nearly a book about physics than either of the first two. It has all their virtues in an enhanced form, with new chapters on irrigation and drainage, and new material on several aspects of soil structure and stability. The outlook remains essentially practical, the descriptive sections are well written, there are plenty of tables and diagrams of field observations, and as all this is supported by an excellent bibliography, Baver's "Soil Physics" will have no difficulty in holding its place as the best available general guide to the physics and physical chemistry of the soil.