

Library Resources of the University of North Carolina

A Summary of Facilities for Study and Research. Edited with a Foreword by Charles E. Rush. (University of North Carolina Sesquicentennial Publications.) Pp. x+264. (Chapel Hill, N.C.: University of North Carolina Press, London: Oxford University Press, 1945.) 21s. 6d. net.

WITH the exception of a chapter on the role of the library in the advancement of scholarship, by L. F. Wilson, professor of library science and administration, and another on co-operative facilities in research and service, by C. E. Rush, director of libraries, this volume in the sesquicentennial celebration series of the University of North Carolina is a purely factual but well-written account of the library resources of the University and its facilities for study and research, as well as of the development of the library and of its more distinctive collections of material. The chief emphasis is placed on the role of the library in the promotion of culture and scholarship, and the contribution of the library in teaching, investigation and research is well displayed.

Although there are a score and a half of contributors, the volume does not lack unity; in style and content it is admirably designed for the purpose it seeks to serve, and the production is no less appropriate. British readers handling this well-printed book, with its good paper and binding, will envy a university able to devote so much material and labour to such a purpose. There is, indeed, room for such publications in Great Britain, even on a more modest scale. A new edition of Colonel Newcombe's "The University and College Libraries of Great Britain and Ireland", now twenty years old, would scarcely meet the need, but if each British university could put out some account of its library resources intermediate in scale between the present volume and, for example, the admirable "A Reader's Guide to the British Library of Political and Economic Science", a useful addition would be made to the bibliographic tools of research and a first step taken towards that survey of library resources which the Library Association suggested in a recent report. R. B.

Report of the Michigan Academy of Science, Arts and Letters

Vol. XXVI, containing papers submitted at the Annual Meeting in 1940. Edited by Eugene S. McCartney and Mischa Titiev. Pp. xiii + 586 + 36 plates. (Ann Arbor, Mich.: University of Michigan Press, London: Oxford University Press, 1941.) 28s. net.

THIS volume contains papers covering a wide field in botany, zoology, geography, geology, anthropology, economics and non-scientific subjects. Most of the botanical papers are of taxonomic interest and deal with local flora in Michigan. The zoological section contains some papers of general interest, including one by M. G. Whitney on "The Hermaphrodite Gland and Germ Cells of *Vallonia Pulchella* Mull.". A second paper by Sister M. F. Xavier O'Reilly deals with "Leucocytic Reaction to Bacterial Infection in Animals". This is a contribution from the Department of Zoology and Institute for Medical Research of the University of Michigan and gives a detailed account of the injection of *Staphylococcus aureus* into earthworms, crayfish, yellow perch, goldfish, garter-snakes, turtles, pigeons, guinea pigs, rabbits and mice. Mice were also inoculated

with suspensions of lampblack and fibrin in order to compare the reactions of the leucocytes to an infecting organism, and to particulate matter (lampblack) and a foreign protein (fibrin). The reactions of leucocytes in a variety of animals to the presence of an infecting organism indicate that in each class of animals a particular set of reactions is induced to protect the animal against bacteria and their metabolic results. The features associated with phagocytosis are described in detail and fall into three categories: (1) phagocytosis and excretion; (2) phagocytosis and digestion; (3) basophilia of the granules of the polymorphonuclear neutrophils or their homologues, the pseudoeosinophils.

Basic Mathematics for Radio Students

By F. M. Colebrook. Pp. x + 270. (London: Iliffe and Sons, Ltd., 1946.) 10s. 6d.

COMPETITION and diversity among text-books is surely to be desired, and it is time that the dominance of a few names in the field of educational mathematics and its applications should be challenged. The present author is correct in stating that in mathematics it is the first steps which count. Many students fail to achieve their proper stature in applied science because of the non-acquirement of facility of expression in mathematical terms, for, again quoting the author, mathematics is the generalization of experience. For such students mathematics was dull, and the present author seeks to obviate the possibility of such a defect.

His technique is to start at the very beginning and to develop a whole course of instruction based on concrete instances, titillated with engaging literary references, leading through series, limits, vectors, and some calculus, with a final application to electric circuits found in radio engineering. Not an entirely original conception; but the author manages to be rigorous at every step as far as he goes, and uses all ingenuity to induce the student to be rigorous also. There are ample examples, but no index. So we conclude that a substantial gap in the literature for teaching potential engineers has been filled.

L. E. C. HUGHES

The Annual Register

A Review of Public Events at Home and Abroad for the Year 1945. Edited by Dr. M. Epstein. Pp. xvi + 470. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1946.) 42s. net.

THE arrangement and allocation of space in this annual volume remain unchanged. Rather more than half the space is devoted to the political history of the world for the year, with special reference to Great Britain and the United States both of which are treated with singular impartiality even in the record of the change of British Government in the summer of that year. It was a year of turbulence but hope. The international complications that now loom so large were only beginning to arise and the successful end of war was the dominant note. Yet the editor's task cannot have been easy; and his untimely death as this volume was being published will be widely regretted.

The second part of the book as usual gives a survey of literature, science and finance, etc., a chronicle of events and a number of obituary notices. Among the public documents printed in full is the text of the declaration of the defeat of Germany signed at Berlin on June 5, 1945, the Russo-Polish Treaty of April 1945 and the Russo-Chinese Treaty of August 1945.