

few will quarrel with the view he expresses here that controversy is in fact desirable and useful, provided it avoids the acrimonious. It is indeed a tribute to Prof. Wilson's energy and perspicacity, with which the reviewer was previously acquainted, that this volume should have been produced without appearing to affect the output of original papers from the Madison department. In a lighter moment, Wilson and Fred subjected the

vast literature dealing with leguminous nitrogen fixation to mathematical analysis, and concluded that an annual publication of approaching one hundred articles was soon to be expected, though it is probable that this rather fearsome climax has now been postponed. In this latest monograph we have a substantial addition to the 1940 quota of literature, but one which will be of great use to a variety of investigators. G. BOND.

THE ENGINEER'S YEARBOOK

The Engineer's Year-Book of Formulæ, Rules, Tables, Data and Memoranda for 1941

A Compendium of the Modern Practice of Civil, Mechanical, Electrical, Marine, Gas, Aero, Mine and Metallurgical Engineering. Originally compiled by H. R. Kempe and W. Hanneford-Smith. 47th annual issue, revised under the direction of L. St. L. Pendred. Pp. xii+2778+lvii. (London: Morgan Brothers (Publishers), Ltd., 1941.) 35s. net.

ONCE again, despite all the difficulties associated with war-time publication, "Kempe" has appeared and to all external appearances differs in no respect from its earlier issues. There is more in this than mere sentiment, for the publication of "Kempe" has become an important annual occasion in the engineering world. Originally designed by H. R. Kempe, engineer-in-chief at the General Post Office, to be a work which, being carefully brought up to date year by year, should take its place as the standard book of reference in the engineering profession, it has in actual fact attained to this eminence and fulfilled the destiny planned for it.

The 1940 edition, being the first affected by the present War, was subjected to some major alterations such as the elimination of the section dealing with costs, which had been rendered useless by

the new conditions. In its place, the mathematical tables were reinstated, and it is in precisely the same form as that of its immediate predecessor that the 1941 edition has been issued. Last year the demand, instead of being smaller than usual as might have been anticipated, actually proved to be enhanced by the changed conditions, thus confirming the need for such a publication and the reliance which engineers have come to place upon "Kempe". The range of information packed into its many pages is amazingly wide, and, being well documented and backed by the high reputation of the men who have contributed its various sections, can be relied upon to yield most of the established data such as may at any moment be required by a practising engineer in one or other of the branches enumerated in the bibliographical particulars given above.

Two minor omissions should be made good in due course. In the section on belt conveyors an empirical formula for the power required to drive a conveyor of this type includes a term representing the weight of the belt; but no information appears as to the weight of such belts. Further, formulæ are given for the approximate strength of wire and manila ropes, but for cotton ropes for there are no such data.

EVERYDAY CHEMISTRY

An Introduction to Chemical Science

By Prof. W. H. Hatcher. Pp. viii+423. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1940). 18s. net.

THIS book is based on a course of lectures which has been developed over a period of years by the author in an attempt to give to non-scientific students at McGill University a cultural appraisal of chemistry.

The book is divided into four main parts,

namely, inorganic, organic, food and industrial chemistry, and contains a bibliography and comprehensive index. In the first part, an introductory account is given of the non-metals and their more important compounds, and this, quite rightly, is blended with an elementary discussion of solutions, colloids and the atom. A broad survey of both metals and non-metals is also given in three chapters which are devoted to the classification of the elements.