

ENGINEERING

The Engineer's Year-Book of Formulæ, Rules, Tables, Data and Memoranda for 1940

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. 46th annual issue, revised under the direction of L. St. L. Pendred. Pp. lxi+xii+2788. (London: Morgan Brothers (Publishers), Ltd., 1940.) 31s. 6d. net.

SUBSTANTIALLY the same publication in the form in which it has appeared for a number of years, "Kempe's Engineer's Year-Book" has been issued in its 1940 edition. Though once again in its forty-six years' history it has been published in time of war, this fact has not changed its form or restricted the great range of the information it presents. A few changes there have been, but these are in the nature of those developments which must necessarily take place in a work of this kind in order to keep it up to date and to maintain its usefulness at a maximum. The section dealing with the costs of engineering works has therefore been excised, for at the time of preparation it was apparent that the prospects of war negated its value for so long as conditions should remain abnormal. The space thus released has been occupied with some of the mathematical tables which were discarded a few years ago so that the bulk of the volume might be limited.

The original aim of its first editor to produce a work which, being carefully brought up to date, shall take its place as the standard book of reference in the profession is fully maintained in the latest issue. The list of associate editors and contributors, forty-six in number and each responsible for the preparation of a section, contains the names of recognized experts, most of them engineers, and the section dealing with timbers has been revised by the Forest Products Research Laboratory. The user can therefore feel fully confident that the information given throughout its pages is in the highest degree reliable. In a way, it appears at a psychological moment, for with the whole engineering profession of Great Britain organizing itself for its duties in the War, and its members engaged in new work, the need for such a work of reference is greatly enhanced.

The Engineers' Manual

By Prof. Ralph G. Hudson. Second edition. Pp. iv+340. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1939.) 13s. 6d. net.

PROF. HUDSON'S book contains what may be regarded as the 'permanent information' of engineering. It comprises a consolidation of the principal formulæ and tables of mathematics, mechanics, hydraulics, heat and electricity in frequent use by practising engineers and engineering students. As each set of formulæ is preceded by a statement giving its application, the physical quantities involved and the units of measurement used, the appropriate formula is quickly

selected and accurate substitution readily effected. The sequence in which the formulæ are arranged is, so far as possible, that of the order of derivation, so that, where it may be required, the source of any statement can be recognized from an inspection of those immediately preceding it.

GEOGRAPHY AND TRAVEL

The Scenery of Sidmouth

Its Natural Beauty and Historic Interest. By Dr. Vaughan Cornish. Pp. xiii+86+6 plates. (Cambridge: At the University Press, 1940.) 7s. 6d. net.

NO one has raised his voice more frequently or with greater sincerity for the preservation of the beauties of rural England than Dr. Vaughan Cornish. To him, as indeed to many others, the charm of our English countryside is one of the priceless heritages of the land, and he says with truth that sorrow is softened and hope strengthened by the peaceful beauty of rural England. In earlier works Dr. Cornish has tried to establish general principles for the aesthetics of scenery. In this small book he illustrates these principles by the analytical description of a small area. The corner of South Devon he has chosen is one of long family associations; and he has been able to give practical expression in it to his desire for preserving beauty in saving the valley of Salcombe Regis from spoliation by the builder. It is a charming volume, which shows the mingling of scientific spirit and æsthetic appreciation in the manner that the author has made all his own, and it provides at very least an hour or two of soothing comfort in these dire days. There are charming illustrations and an excellent map.

The Statesman's Year-Book

Statistical and Historical Annual of the States of the World for the Year 1940. Edited by Dr. M. Epstein. Seventy-seventh annual publication: revised after Official Returns. Pp. xxxviii+1488. (London: Macmillan and Co., Ltd., 1940.) 20s. net.

EVEN in these difficult times this annual statistical review of the world appears, not merely with regularity, but also with all its usual features and at the usual price. The task of revision has presented many obstacles, and for several States the discontinuance of official statistics has been a drawback. Yet the picture of the world in the opening quarter of this year is wonderfully complete. States now in enemy occupation appear in their rightful places: thus Poland, and Danzig, as well as the later occupied western States, retain their nominal independence. Czechoslovakia and Albania also have their places, but Ethiopia is submerged. Even the League of Nations still figures, but the list of non-members is now a long one. The useful introductory tables give world production of petroleum, cotton, iron and steel, gold and rubber. A coloured folding map shows the extent of the U.S.S.R. with indications of the various degrees of autonomy, 'protection' and influence attributed to the different constituent States and territories.