BOOK SECTION

New Publications

Modern Practice in the Pickling of Metals and Related Processes, by M. Straschill, published by Robert Draper Ltd, Teddington Middx, England, 1964, 196 pages, 65sh.

High Temperature Inorganic Coatings, by J. Huminik (Ed), published by Reinhold Corporation, New York, 1963, 310 pages.

Modern Electroplating, by F. A. Lowenheim (Ed), published by John Wiley & Sons, Inc, New York—London—Sydney, 2nd Ed, 1963, 769 pages, $ 16.

Handbuch der Galvanotechnik, Vol. I, by H. W. Dettner and J. Elze (Ed), published by Carl Hanser Verlag, Munich, 1963, 648 pages, 125 DM.

Van Nostrand's International Encyclopaedia of Chemical Science, published by D. Van Nostrand Co. Ltd., London, 1964, 1,344 pages, £11 sh 15.

Chemical Plant Design I, by F. Molyneux, published by Butterworth & Co (Publishers) Ltd., London, 1963, 117 pages, 50sh.

Hard Chromium Plating, by J. D. Greenwood, published by Robert Draper Ltd., Teddington, Middx., England, 1964, 201 pages, 65sh.

First International Conference on Lead, edited proceedings of Conference held in London, Oct. 1962, published by Lead Development Association, London, 253 pages, 45sh.

Modern Polarographic Methods, by H. Schmidt and M. von Stackelberg, translated from German by R. E. W. Maddison, published by Academic Press, New York, 1963, 99 pages, $ 5.50.

Fuel Cells — Power for the Future, published by Fuel Cell Research Associates, Cambridge, Mass, USA, 2nd printing, 1960, 158 pages.

Architectural Metal work in Copper and Its Alloys, Publication No. 63, published by Copper Development Association, London.

Ionic Equilibria in Analytical Chemistry, by H. Freiser and Q. Gernando, published by John Wiley & Sons, Ltd., London, 1963, 334 pages, 38sh.

Extractive Metallurgy of Aluminium, Vo. 1 by G. Gerard and P. T. Stroup (Ed), Vol. 2 by P. T. Stroup (Ed), published by John Wiley & Sons, New York, Vol. 1 — 355 pages, $15; Vol. 2 — 572 pages, $24.

Anti-Corrosion Manual, published by Scientific Surveys Ltd., London, 5th ed., 1964, £3 sh. 3.

Physical Chemistry, by G. W. Castellan, published by Addison-Wesley Publishing Co., Inc., Reading, Mass, USA, 1964, 717 pages, 12.50.

Publications Received

Insdoc List — Current Scientific Literature, Vol. 11, No. 1-8, 1964, New Delhi.

International Atomic Energy Agency Bulletin, Vol. 6, No. 1,2, 1964, IAEA, Vienna.

Corrosion Bulletin, Vol. 1, No. 1, 2, 1964, Corrosion Advisory Bureau, CSIR, Jamshedpur.

Chemical Age of India, Vol. 15, No. 1 (Proceedings of a Symposium on "New Developments in Chemical Industries based on Ethyl Alcohol, Its By-products and Wastes"), No. 2, 4, 1964, Technical Press Publications, Bombay.

CSIR News, Vol. 14, No. 1-7, 1964, New Delhi.

Industrial Finishing, Vol. 16, No. 187-189, 1964, Arrow Press Ltd., London.

Corrosion Technology, Vol. 11, No. 1-3, 1964, Grampian Press Ltd., London.

Metal Finishing Journal, Vol. 10, No. 109-111, 1964, Fuel and Metallurgical Journals Ltd., London.

An Introduction to Metallic Corrosion, by U. R. Evans, published by Edward Arnold (Publishers) Ltd., London, 2nd ed., 1963, 253 pages, 30 sh.

British Patents, Group 36, Division H1, London.

Electroplating and Metal Finishing, Vol. 17, No. 1-3, 1964, Robert Draper Ltd. Teddington, Middx, England.

Corrosion Prevention and Control, Vol. 10, No. 8-10; Vol. 11, No. 1-3, 1964, Scientific Surveys Ltd., London.

author gives details of the utility of activated carbon in vapour phase system. In the next chapter ways and means to explore the potential of activated carbon for new fields in liquid systems are reviewed. In this section the author has described the use of activated carbon in conjunction with other materials like chemical agents etc. Carbon treatment of liquid systems as unit operations is discussed in the next chapter. Description of various applications of activated carbon in different industries, with practical details are given in another chapter. Evaluation of the activated carbons for liquid systems, manufacture and nature of activated carbon are dealt with in the following three chapters. Desorption of activated carbon in liquid systems and application of carbon as contact catalysts are discussed. The author has dealt with the biochemical aspects of activated carbon in one chapter. Laboratory testing procedures for evaluating adsorption in gas and vapour and for liqiud systems are described next. In chapter fifteen, other properties of activated carbon like pH, constituents etc., are given. In the last chapter the author has included such of those odd subjects pertaining to activated carbon, which could not be conveniently classified in the previous chapters.

A useful appendix normally used with activated carbon has been added. References are given at the end of each chapter. The volume is attractively produced with clear printing. The author has dealt with the subject in a lucid manner to enable the user of activated carbon to understand the necessity of using the correct type of carbon for specific purposes. This excellent publication will be an asset in any reference library for electrochemists, physical chemists and chemical engineers interested in the use of activated carbon.

—S.K.

Metal Industry Handbook and Directory, 1964, published for 'Metal Industry' *by* Iliffe Books Limited, London, 560 pages, 21sh.

The publishers of 'Metal Industry' bring out this annual publication, and this 53rd edition "is a standard work of reference offering comprehensive information to all engaged in or connected with the non-ferrous metal industries". The general arrangement of matter and contents is about the same as in previous years. In the first two sections general properties of metals and alloys and general data and tables are given. General information on electroplating and allied processes is dealt with in the third section. Information about nickel seal and micro-cracked chromium has been added in this year's handbook. Inclusion of newer types of baths like sulphamate, pyrophosphate and other fluoborates will complete the information about electroplating processes in this section.

The handbook covers almost all aspects of non-ferrous metals and alloys, and will no doubt be of immense value to metallurgists, chemists and engineers in this field. The get-up is, as usual, good.

—S.K.

An Introduction to Metallic Corrosion, *by* U. R. Evans, published by Edward Arnold (Publishers) Ltd., London, 2nd ed., 1963, 253 pages, 30sh.

This is the second edition of the book first published in 1948, and written by Evans, a 'household' name in the field of corrosion. The revision has modified certain portions and brought the matter up-to-date.

There are 9 chapters in the volume: film growth; electrochemical corrosion; corrosion by acids, alkalis and pure water; influence of environment; effect of stress, strain and structure; passivity and inhibition; protective coverings; kinetics and chemical thermodynamics; statistics and size effect. In the end a historical note and an electrochemical appendix are included.

The principles of metallic corrosion and its prevention have been presented in an excellent manner in this concise volume. There is little to comment on the treatment. One has, however, to see the book 'The Corrosion and Oxidation of Metals' (1960) by the same author for references, and this should be regarded as an important drawback. Further, the lettering of references as a, b, c etc., in pages 242 to 244 is somewhat uncommon. Like the earlier edition this volume will no doubt be a success. It should find an important place in the libraries of institutions handling corrosion courses. It is strongly recommended as a valuable book of reference to all those interested in corrosion and corrosion control.

—T.L.R.

Corrosion Resistance of Metals and Alloys, *by* F. L. LaQue and H. R. Copson (Ed), published by Reinfold publishing Corporation, New

York, 2nd ed., ACS Monograph No. 158, 1963, 712 pages, $21.

The first edition by McKay and Worthington was published in 1936, and the revised volume edited by LaQue and Copson has taken care of the much needed modifications in keeping with the recent advances in corrosion during the last 30 years. Several people have contributed to this book. The American Chemical Society, the publishers and the editors deserve to be congratulated for bringing out this fine monograph.

The principles of corrosion have been discussed at first; followed by corrosion testing and control. Control methods should have been dealt with in greater detail. The second part of the book covers the corrosion behaviour of different metals and alloys. The corrosion resistance data compiled for each system are extremely valuable in the choice of a material of construction for a specific case. It is good to find a comprehensive treatment on stainless steels, and adequate information pertaining to the newer metals. There are exhaustive references at the end of each chapter.

This monograph will serve as a first class 'corrosion guide'. There is no doubt that, as with the previous edition, this 'will be equally famous as the leading treatise on corrosion in the English language'. It is a very important source of reference to electrochemists, metallurgists, design engineers and others tackling corrosion problems.

—T.L.R.

Chemical Analysis without H_2S, using Potassium Trithiocarbonate, *by* K. N. Johri, published by Asia Publishing House, London, First edition, 1963, 107 pages, 20sh.

The obvious advantages of replacing a noxious reagent such as gaseous H_2S in inorganic analysis by potassium trithiocarbonate would be highly welcome to all the students of chemistry. The increasing popularity of the new reagent has inspired the author to present a scheme of analysis which is not entirely a copy of the conventional procedure. The present text, therefore, will undoubtedly be found very useful. Nevertheless, the text suffers from several blemishes. Repetitions, faulty English construction and usage, typographical errors and non-conformity of abbreviations (e.g. solubility product is represented in four different ways) throughout the text make its perusal somewhat annoying. It is hoped these will be avoided by a careful revision and good editing in the second edition.

—P.L.N.R.