BOOK SECTION

New Publications

Instrumentation in the Metallurgical Industry, published for the Institution of Metallurgists by Illiffe Books Ltd., London. 1964, 130 pages, 37 sh. 6d.

The Relation between the Structure and Mechanical Properties of Metals, published by H.M. Stationery Office, London, 1963, Vols. 1 and 2, 794 pages, 60 sh.

Chemisorption, by D. O. Hayward and B. M. W. Trapnell, published by Butterworth and Co., London, 2nd ed, 1964, 323 pages, 60sh.

Theory and Structure of Complex Compounds, by Jezowska-Trzebiatowska (Ed), published by Pergamon Press, London and New York, 1964, 707 pages, 120sh.

Organic Polarographic Analysis, by P. Zuman, published by Pergamon Press, London and New York, International Series of Monographs on Analytical Chemistry, Vol. 12, 1964, 313 pages, 50sh.

Physical Chemistry of Iron and Steel Manufacture by C. Bodsworth, published by Longmans, Green & Co., London, 1963, 497 pages, 50sh.

International Encyclopedia of Chemical Science, published by D. Van Nostrand Inc, London, 1964, 1331 pages, 235sh.

Fluidized-Bed Coating with Plastics: Technology and Potential for Military Applications, by A. H. Landrock, published by Office of Technical Services, Washington D.C., Plastic Report 13, 1964, 223 pages, $3.50.

Finishing Handbook and Directory, published by Sawell Publications Ltd., London, 1964.

Thermodynamics for Chemists, by S. Glasstone, published by D. Van Nostrand Co., Inc., U.S.A., East-West, Student Ed. 1964, by Affiliated East-West Press P. Ltd., New Delhi, 522 pages, Rs. 10.

Desalination of Water using Conventional and Nuclear Energy, published by IAEA Secretariat, Vienna, Technical Report Series No. 24, 54 pages, 6sh.

Handbook of Industrial Electroplating, by E. A. Ollard and E. B. Smith, published for Metal Industry by Iliffe Books Ltd., London, 3rd ed. 1964, 396 pages, 67sh.

Encyclopedia of Surface-Active Agents, Vol. II by J.P. Sisley and P. J. Wood, published by Chemical Publishing Co., Inc., New York, 1964, 510 pages. $16.50.

Publications Received

Insdoc List — Current Scientific Literature, Vol. 11, No. 14-17, 1964, New Delhi.

CSIR News, Vol. 14, No. 13, 14, 1964, New Delhi.

Corrosion, Vol. 20, No. 5-7, 1964, NACE, Houston, U.S.A.

Materials Protection, Vol. 3, No. 5-7, 1964, NACE, Houston, U.S.A.

U.N. Weekly Newsletter, Vol. 12, No. 29-33, 1964, New Delhi.

Annual Report, 1963-64, Council of Scientific and Industrial Research, New Delhi, 1964, 104 pages.

Cobalt, No. 23, 1964, Centre D'Information Du Cobalt, Brussels.

Chemical Age of India, Vol. 15, No. 7, 8, 1964, Technical Press Publications, Bombay.

Metal Finishing, Vol. 62, No. 6, 7, 1964, Metals and Plastics Publications Inc, Westwood, N.J., U.S.A.

Review of Metal Literature, Vol. 21, No. 5, 6, 1964, ASM, Metals Park, Ohio, U.S.A.

Inco-Mond Nickel, No. 8, 1964, The International Nickel Co., (Mond.) Ltd., London.

Battelle Technical Review, Vol. 13, No. 6, 1964, Battelle Memorial Institute, Columbus, Ohio.

UNESCO Bullettin, No. 16, 1964, South Asia Science Cooperation Office, New Delhi.

British Patents, Division H 1, London.

Electroplating and Metal Finishing, Vol. 17, No. 6, 7, 1964, Robert Draper Ltd., Teddington, Middx, England.

ISI Bulletin, Vol. 16, No. 7, 1964, New Delhi.

Australasian Corrosion Engineering, Vol. 8, No. 6, 1964, North Sydney, N.S.W.

Australian Journal of Applied Science, Vol. 15, No. 1, 1964, CSIRO, East Melbourne.

Australian Chemical Engineering, Vol. 5, No. 6, 1964, North Sydney, N.S.W.

Electro Technology, Vol. 8, No. 1 (Special Documentation Issue), 1964, Society of Electronic Engineers, Bangalore.

Corrosion Prevention and Control, Vol. 11, No. 6, 1964, Scientific Surveys Ltd., London.

Recent Progress in Metal Working, published for The Institution of Metallurgists, London, by Iliffe Books Ltd., London, 1964, 136 pages, 37sh 6d.

Science and Engineering, Vol. 17, No. 6, 1964, ISE, Calcutta.

International Atomic Energy Agency Bulletin, Vol. 6, No. 3, 1964, IAEA, Vienna.

Journal of the Electrochemical Society of Japan, Vol. 31, No. 4, 1963, ECS of Japan, Tokyo.

The Nickel Bulletin, Vol. 37, No. 5, 1964, The International Nickel Co. (Mond) Ltd., London.

Science and Appliance, Vol. 28, No. 6, 1964, The Ohio State University Research Foundation, Columbus, Ohio.

NML Technical Journal, Vol. 6, No. 3, 1964, Jamshedpur.

Crerar Metals Abstracts, Vol. 12, No. 5, 1963, The John Crerar Library, Chicago.

BOOK REVIEWS

Commercial Methods of Analysis, *by* F. D. Snell and F. M. Biffen, published by Chemical Publishing Company Inc, New York, Revised edition, 1964, 753 pages, $12.00.

This book is the revised edition of the one published in 1944 by the authors. As they have stated the chages and modifications are not too many.

There are thirty-nine chapters in this volume. They can be broadly classified into three categories. First eight chapters deal with general techniques and methods of analysis; second set of eight chapters with the analysis of inorganic materials; and the rest with industrial products — most of them being organic in nature. Each chapter has been dealt in a nice manner, being touched upon with qualitative analysis of the materials. The tables, figures and photomicrographs are brought in a good fashion. Especially the tables given in "hydrogen-ion determination" serve as ready sources of information. Apart from all these things certain modifications are worth considering. The last chapter on "Indicator, Reagent and Volumetric solutions" could perhaps be placed before chapter 6. Also, the introduction of recent methods involving complexing agents like EDTA titrations, employing metal indicators could have been very well appreciated.

In spite of the above comments, this volume serves as a valuable source book to a person at the threshold of analytical chemistry as well as to an experienced analytical chemist to make the methods applicable to industry.

—D.V.S.

Recent Progress in Metal Working, published by Iliffe Books Ltd., London, for the Institution of Metallurgists 1964, 136 pages, 37sh. 6d.

The four papers in this volume are the lectures delivered at the 18th Refresher Course held at the Institution of Metallurgists in 1963. These lectures have covered recent advances in metal working techniques. In the first lecture, "The Mechanics of Deformation" by J. M. Alexander, methods and techniques for solution of metallurgical problem using the plasticity theory and the application of this theory to the derivation of the slip-line field solution have been discussed. The development of technological theory is illustrated by hot and cold forging, hot rolling and deep drawing. The second paper is by J. G. Wistreich. Rolling, forging, drawing and extrusion are the important processes employed in the ferrous and non-ferrous metal industries. In this paper, the author has described the modern trend with these mechanical processes, and how higher speeds could be obtained with improved methods of working. He has also described the various developments in the production of plates, rods, etc., and the finer controls by instrumentation in the production of these materials. The third paper by W. Johnson surveys High Rate Forming Methods like chemical explosives, high voltage discharges, electro-magnetic fields and the kinetic energy of fast-moving masses. The author describes the practical and scientific objects of some of the newly unconventional methods in metal forming. In the last paper "The Metallurgical Effects of Mechanical Working" the author, W. A. Baker, describes the modification of the structure of cast metals, the direct effects of mechanical working on properties, and the effects which are indirect in the sense that they influence the response of the material to subsequent thermal treatments, forming, etc.

At the end of each paper references are given, and an Index has been provided. The book covers almost all the recent developments in metal working, and will be of immense use to engineers and metallurgists in this field.

—S.K.