

Handbuch der Anorganischen Chemie

Herausgegeben von Prof. Dr. R. Abegg, Dr. Fr. Auerbach und Dr. I. Koppel. In 4 Bänden. Band 4, Abteilung 3: Die Elemente der achten Gruppe des periodischen Systems. Teil 4: Nickel und seine Verbindungen. Lief. 1. Herausgegeben von Dr. I. Koppel. Pp. xviii + 827. (Leipzig: S. Hirzel, 1937.) 78 gold marks.

THE literature relating to any one of the chemical elements is now so great that scientific workers in general should be grateful for comprehensive works such as the volume under review, which save them much labour in their search through numerous and scattered original publications. In the English language we now have the recently completed "Comprehensive Treatise on Inorganic and Theoretical Chemistry" by J. W. Mellor which fulfils this need, whereas in German there is not only "Gmelin-Kraut's Handbuch der Anorganischen Chemie" and the handy "Lexikon der Anorganischen Verbindungen" of M. K. Hoffmann but also "Abeggs Handbuch der Anorganischen Chemie", of which the present volume constitutes a part.

The Abegg series of handbooks enjoys a well-deserved popularity as works of reference. This appreciation is due not only to the comprehensive nature of these volumes but also to the clarity and logical order of their subject matter. The present monograph on nickel maintains fully the high standard of the foregoing volumes, and is to be warmly recommended to all inquirers interested in this element, which is important for both technical and scientific reasons. Nearly one third of the 827 pages of this treatise is devoted to the preparation and properties of the metal, and about an equal amount of space is allotted to nickel compounds, including univalent, bivalent and trivalent derivatives, simple and complex salts, ammoniated derivatives and complex compounds with organic addenda. Other sections include data on the atomic weight of nickel, the physics of the nickel atom and the colloidal properties of the metal and certain of its derivatives. These topics are surveyed with all the thoroughness usually displayed in this series of treatises.

This volume, which is fully documented up to 1936 and printed clearly on durable paper, is largely free from errors. There are, however, two criticisms which the reviewer wishes to make. The first is the absence of an index. This omission is offset to some extent by a good table of contents at the beginning of the volume and by the orderly arrangement of the text, which follows closely the periodic arrangement of the elements. The second criticism relates to the high cost of the treatise, which at the existing rate of exchange places it beyond the reach of many chemists.

F. H. B.

Wide Horizons:

Wanderings in Central Australia. By Robert Henderson Croll. Pp. xiv + 158 + 27 plates. (Sydney and London: Angus and Robertson, Ltd., 1937.) 9s. 6d. net.

MR. CROLL records impressions of Central Australia, which were gathered on four expeditions between

1929 and 1934. He witnessed both the effects of a seven years drought and the rejuvenation of the country and its animal and vegetable life after the rains. The contrast is strikingly portrayed, though, not unnaturally, the narrative stresses the aridity of the dry period. The author conveys to his readers the charm and beauty of the landscape as effectually as he impresses upon them the vastness of its spaces. He is an enthusiast on the economic possibilities of the country, given a water supply and a market such as a newly discovered gold-field might afford.

The concluding chapters deal with the problem of the aboriginal and the half-caste. Here the indictment of the Australian people is mainly in the form of a statement of fact, and is temperate in language. It is all the more telling for that. While recognizing the beneficent work of the missionaries, he holds that humanitarian measures have been no less a failure in the long run than neglect; and that what is needed is a drastic change in method, liberal expenditure in money, and Federal control (see NATURE, Dec. 18, p. 1029).

Duše Rostlín (The Soul of Plants)

By Prof. B. Němec. Pp. 234 + 16 plates. (Prague: Nakladatelství Pražské Akciové Tiskárny, 1937.) 29 crowns.

PROF. Němec, the distinguished Czechoslovak plant physiologist, has written an absorbing survey of the plant kingdom under the title "The Soul of Plants". Writing for men of science in general, he describes plant-life, the evolution of higher forms, the struggle for existence and the purposefulness of their life-cycles. There is a particularly striking chapter, "Death rules the Living", which gives a vivid idea of the contributory causes for the 600,000 plant species and of the genetics of the 'miracle of inheritance', the sources of variation, genes and the ways in which plant posterity is ensured.

It is to be hoped that an English edition of this work will appear, so that Prof. Němec's views may reach a wider circle of readers.

Biological Laboratory Technique:

an Introduction to Research in Embryology, Cytology and Histology. By Prof. J. Brontě Gatenby. Pp. vii + 130. (London: J. and A. Churchill, Ltd., 1937.) 7s. 6d.

THIS book gives a short introduction to recent methods in microtomy, many of the methods being adapted for the smear technique which does not require section cutting. It is a useful and compact summary for amateurs who do not have an elaborate equipment and for university students and teachers desiring an introduction to the most recent practices. In addition to a statement about apparatus, the treatment of living cells and vital staining, there are sections on smear methods, fixation, embedding in paraffin, dioxan, *n*-butyl alcohol and celloidin. A chapter on staining is followed by notes on methods in histology and embryology.