

*The Book of Chemical Discovery.* By Leonard A. Coles. Pp. 288+31 plates. (London, Bombay and Sydney: George G. Harrap and Co., Ltd., 1933.) 7s. 6d. net.

EVERY book that makes the achievements of science and its problems known to a wider circle of the public is to be welcomed. Mr. Coles gives a judicious blend of the past, the present and the future—wisely in our opinion, for he who would understand the future must venerate the past. The story of the dawn of chemistry, of the age of alchemy, is far more interesting than that of the lives of the contemporary kings and queens and their favourites, if only we could persuade the public to read the former instead of the latter. Even the daily Press now takes notice of atoms, molecules and electrons: with the transmutation of the elements a fact, the wheel of progress has taken a full turn.

Mr. Coles is happy in his treatment of the industrial section, though it might perhaps be a little more up to date, even if the latest wonders of synthetic production are a little more difficult to explain. His final chapter on problems will leave his readers thoughtful, conscious of the progress which is being made and of how much remains to be done.

The book is far more accurate than many similar efforts, and as it wisely confines its ambit, it is able to cover the subject very completely: it is an ideal school prize or present. E. F. A.

*Handbuch der landwirtschaftlichen Bakteriologie.* Von Prof. Dr. F. Löhnis. Zweite, neu bearbeitete Auflage. Band 1, Teil 1: *Futtermittelbakteriologie.* Von Prof. Dr. F. Löhnis. Pp. 105. 10.50 gold marks. Band 2, Teil 1: *Düngerbakteriologie.* Von Prof. Dr. G. Ruschmann. Pp. 158. 15 gold marks. (Berlin: Gebrüder Borntraeger, 1933.)

THE old "Handbuch" of the late Prof. Löhnis has been enlarged, these parts being the first of the second edition to appear. The price may seem high for paper covers, but the fund of information supplied is very rich, so that the work will be of great value on library shelves: individual workers will appreciate the new edition, though few may be able to buy it as a whole.

Without slighting the text, it may be said that the extensive running bibliography—which frequently occupies more than half of the page—will be the feature most sought after. The plan of Band 1, Teil 1, includes discussions on bacteriological aspects of the preparation and self-heating of hay; silage; decomposition processes, and their control, in various types of fodder; technique of examination; and an especially interesting section on the rôle of micro-organisms in animal digestion. The plan of the larger part ("Farmyard Manure") is comparable. The work is generally up to date, though no description of the A.I.V. ensilage process is given.

*The Outlook of Science: Modern Materialism.* By R. L. Worrall. Pp. v+203. (London: John Bale, Sons and Danielsson, Ltd., 1933.) 8s. 6d. net.

IN this useful and provocative work, the author denounces the idealistic tendencies of modern science and pleads for a revival of philosophical materialism. It is true that the extensive mathematization of science has carried away from reality some of our most prominent men of science. A series of well-chosen quotations from leading physicists and biologists are taken as a basis by the author for a searching criticism of their idealistic point of view. The sympathy one may feel for the author's critical endeavours, however, can scarcely be lavished on his constructive conclusions. Inspired by the crude materialism of the Russian thinkers, the author gives as a keynote of his philosophy the very controversial assertion that mind is derived from matter. The elaboration of a tempered dualism would have saved him from many pitfalls. T. G.

*The Handbook to the Roman Wall: a Guide to Tourists traversing the Barrier of the Lower Isthmus.* By the late Dr. J. Collingwood Bruce. Pp. x+221+1 plate. Ninth edition. (Newcastle-on-Tyne: Andrew Reid and Co., Ltd.; London: Longmans, Green and Co., Ltd., 1933.) 3s. 6d. net.

A FAMOUS handbook, written seventy years ago and now in its ninth edition, would call for little comment, if it were not that it is claimed by the editor, Mr. R. G. Collingwood, than whom no one is more competent to pronounce an opinion, that it is now the most complete account of the Wall that has appeared since 1867. Much matter of antiquarian interest that would now be considered irrelevant has been excised, the information has been brought fully up to date, and a bibliography appended. The utility of the handbook has been enhanced while its attractiveness as an account of the Wall is unimpaired.

*Earth-Lore: Geology without Jargon.* By Prof. S. J. Shand. Pp. viii+134+4 plates. (London: Thomas Murby and Co., 1933.) 5s. net.

IN his latest book Prof. Shand outlines the major facts of geology and touches lightly on some of its unsolved problems. The subjects dealt with include: earth sculpture, the sea floor, the age of the earth, the problem of the mountains, and drifting continents.

The book appears to be intended for those of the thinking public who may wish to know what geology is and what geologists are thinking about to-day. The use of 'jargon' has been very largely avoided and simple explanations have been furnished for such technical terms as are used.

"Earth Lore" should appeal not only to the wider public for which it seems to have been expressly written, but also to students of geology who require an up-to-date conspectus of their own subject.