

Recent Advances in Radium. By W. Roy Ward and A. J. Durden Smith. Pp. viii+324. (London: J. and A. Churchill, 1933.) 21s.

THIS volume is a valuable addition to Messrs. Churchill's "Recent Advances" series, and comes at an appropriate time, for it is true to say that a balanced, readable and competent account of the possibilities of radium therapy was never more necessary, both for the medical profession and for the public. The first part of the book deals with the occurrence and extraction of radium, its physical properties and their measurement, its mode of action on the tissues, radio-resistance and -sensitivity, and the intricacies and difficulties of dosage. The different types of applicators—surface, needles, tubes and bomb—and the screens employed are gone into in detail, as well as the methods for the protection of radium workers.

The second part deals with the treatment of cancer in the more important sites, and discusses the methods and results of the principal radium institutes of the world. A cursory survey of these chapters reveals the source of the popular belief in a specific destructive or curative action of radium in cancer, by a natural misinterpretation of its selective action in new growths of certain organs and types, but it is inconceivable how any medically educated person can lend support to this disastrous opinion. The limitations imposed by the varying radio-sensitivity of the normal tissues, as well as of new growths, are constantly brought into prominence by the authors, as the basis of the selection of the method of choice (surgery, radium, X-rays) in the cancers of various organs.

The third part deals with the use of radium in the treatment of a variety of non-malignant conditions. J. A. MURRAY.

Modern Electric Clocks: Principles, Construction, Installation and Maintenance. By Stuart F. Philpott. Pp. vii+215. (London: Sir Isaac Pitman and Sons, Ltd., 1933.) 7s. 6d. net.

THE pioneer of the electric clock was Alexander Bain, whose patent was taken out in 1840. He was soon followed by others, and in 1851 C. Shepherd installed in the Great Exhibition a large electric clock having one great dial in the transept and two others at the ends of the building. Speaking of this and other clocks, Timbs said: "the application of electricity to the measurement of time for the purposes of the Great Exhibition was an appropriation in every way accordant with the spirit of the grand scheme of enlightenment as well as with the genius and skill evinced in the Great Building itself." Shepherd's clock attracted a good deal of attention and since then electric clocks have been extensively used in warehouses, factories, railway stations, offices and ships, and many types have been evolved, with all of which Mr. Philpott deals.

Among the latest and most useful electric clocks are the synchronous motor clocks, the current for which is obtained from alternating current mains.

This development has been rendered possible in Great Britain only by the frequency standardisation brought about by the Electric Grid. "Where time-controlled alternating current is available," says Mr. Philpott, "the synchronous motor clock is the best proposition for domestic time-keeping. Accurate time within a few seconds of Greenwich is assured and all the clocks indicate alike." Five such clocks can be run for 200 hours or more for one electrical unit. Mr. Philpott's book is clearly written, well-illustrated and thoroughly practical.

Social Development in Young Children: a Study of Beginnings. By Dr. Susan Isaacs. Pp. xii+480. (London: George Routledge and Sons, Ltd., 1933.) 15s. net.

AN outstanding characteristic of this book is its consistently maintained scientific outlook. For the author, facts are facts, even though they come within the category of things that are not 'nice'. But more than this, the survey of facts, in the form of records concerning actual children, precedes any attempt at interpretation and generalisation. In other words, in the author's hands the study of children passes the stage of mere opinion based upon a slender stock of observations, and reaches the stage of a real inductive inquiry. Though the main purpose of the investigation is simply the advance of knowledge, yet the author has some wise advice to give by the way to experienced teachers and to intelligent parents. She is clear, for example, that "the explosive material of the unconscious" can be safely touched only by the trained analyst, and she is cautious in her statements about the amount and kind of psychological instruction that is good for the amateur. Critical appreciation of her work must be left to the journals which specialise in child study; but we desire to recognise the value of this book as an example of scientific method applied to an elusive subject of inquiry. It worthily succeeds her former work on "Intellectual Growth in Young Children".

Organic Syntheses: an Annual Publication of Satisfactory Methods for the Preparation of Organic Chemicals. Vol. 13. W. H. Carothers, Editor-in-Chief. Pp. vii+119. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1933.) 10s. 6d. net.

THE thirty preparations described in this volume are characterised, as usual, by their variety. Organic reagents, for example, range from that old favourite, methyl iodide, to representatives of the newer technique, such as 2, 4-dinitrophenylhydrazine and perbenzoic acid (made from benzoyl peroxide and sodium methylate by an improved procedure). Among other interesting substances contained in the selection are azelaic acid, diphenyl triketone, Ph.CO.CO.CO.Ph, *p*-fluorobenzoic acid, and tricarbomethoxymethane, CH(CO₂CH₃)₃. The appended index covers volumes 10-13 of the series. J. R.