

### Chemical Analysis.

*The Theory of Quantitative Analysis and its Practical Application.* By Dr. Henry Bassett. (Twentieth-Century Chemistry Series.) Pp. viii+308. (London: G. Routledge and Sons, Ltd., 1925.) 15s. net.

DR. BASSETT has produced a most interesting and valuable book. It is not a treatise on analysis; it is rather an exposition of modern ideas in physical chemistry, copiously illustrated by reference to detailed accounts of good analytical methods. For example, the chapter on the solubility product treats of various silver-halogen titration methods, and the determination of barium as sulphate. In connexion with co-ordination and complex ions, one finds a number of nickel-cobalt separations and the ammonium phosphomolybdate precipitation. Colloids, amphoteric compounds, electro-affinity, the composition of aqueous ammonia—such are a few of the other chapter headings.

The work is useful to the student and to the analyst alike. A careful perusal should help materially towards a knowledge of modern concepts of physical chemistry, while the criticism from a new point of view reveals the strength or weakness of the many analytical methods dealt with. A search for new methods should be assisted by an application of the principles set forth in the book, since in this way it may often be recognised at the outset that a suggested course of action is unsound and therefore not worth investigation.

The book is well produced, and very few typographical errors have been noticed. T. W. H.

### Miscellaneous.

*1825-1925: a Century of Stupendous Progress.* By Joseph McCabe. Pp. viii+168. (London: Watts and Co., 1925.) 5s. net.

MR. McCABE presents in this very intriguing book a thesis involving two points: (a) "that there has been in the last one hundred years more progress in every respect than had ever been witnessed in five hundred years before, and (b) that this progress is due almost entirely to science." The author makes out a very strong case. Mr. McCabe is apparently moved to a defence of modern progress partly by the contributions of Bertrand Russell and Schiller in the "To-day and To-morrow" series issued by Messrs. Kegan Paul, Trench, Trubner and Co., Ltd., and partly by the persistence with which certain writers decry modern tendencies and belittle our times. Against such men the author expresses himself very vigorously. But after all this sort of cry has been common to all ages and civilisations.

However, whatever may be the promptings, Mr. McCabe has presented a very effective picture of life in 1825 at all angles in contrast with the conditions of to-day, and in the latter portion of his work he shows very forcibly the part science has played in this social and economic evolution. It may be argued that civilisation reached heights in the past in every way comparable with those of to-day, but there is much in the author's contention that a culture which did not reach or touch the common people cannot be counted as a general influence. It is from this point of view

that Mr. McCabe's case derives its main strength. "From the world of the Middle Ages no reform could be expected. The five per cent. of Europe who could read and think were precisely those who profited most by the existing order of things; the ninety-five per cent., the mass of the workers, lived at so low an intellectual level that they hardly ever dreamed of changes." We feel confident that this stimulating book will find a ready public. I. B. H.

*Meteorological Office: Air Ministry. British Rainfall, 1924.* The Sixty-fourth Annual Volume of the British Rainfall Organisation. (M.O. 275.) Pp. xv+266. (London: H.M. Stationery Office, 1925.) 15s. net.

THIS work maintains the same high order which has characterised its predecessors, although the superintendency of the British Rainfall Organisation has again changed hands, Mr. R. Corless now being responsible. In addition to the general table giving the rainfall of the individual observers at nearly 5000 stations, many details of considerable interest are given. Maps and tables show the distribution of rainfall in each month and for the year, and its relation to the average. Discussions are given of heavy falls in short periods and of the number of days with rain, as well as of spells of dry and wet weather during the year. Records are given of evaporation and percolation through the soil.

For the British Isles generally, 1924 was the wettest year since 1903, and at many stations it was the wettest year on record. For the whole area the rainfall was 17 per cent. in excess of the normal; in 1903 the excess was 27 per cent. A local downpour of 9.4 inches occurred on August 18 at Cannington, Somerset, of which at least 8 inches fell in 5 hours; this unprecedented rainfall is discussed at length in a special article by Dr. Glasspoole. Details are also given of the widespread deluge in the great thunderstorm of May 31, floods being general in western and northern districts.

In each month from April to October the rainfall was above the average, which is the longest sequence of wet months since before 1881.

Statistics are given showing the relative dryness or wetness of each month or year in the series 1881 to 1924 for England and Wales, Scotland and Ireland separately, and for the British Isles as a whole. C. H.

*Chambers's Encyclopædia: a Dictionary of Universal Knowledge.* New edition. Edited by Dr. David Patrick and William Geddie. Vol. 7: Manchester to Pennywort. Pp. iv+855. (London and Edinburgh: W. and R. Chambers, Ltd.; Philadelphia: J. B. Lippincott Co., 1926.) 20s. net.

SEVEN out of ten volumes of this useful encyclopædia have now appeared. The present volume bears evidence of revision and correction up to last year, and some of the articles have been completely rewritten since the earlier editions. It is no mean feat to compress such subjects as mining into seven pages, music into five, or Norway into less than six, but it appears to be done successfully in this work without sacrificing essentials and yet keeping the articles in a readable form. There are several new coloured maps.