

**Practical Mathematics**

By Clement V. Durell. Pp. viii+176+xv. (London: G. Bell and Sons, Ltd., 1942.) 3s. 3d.

**T**HE intensive study of the principles of elementary mathematics has greatly increased with the coming of war and, as a consequence, a new type of book has made its appearance. The necessity of this lies in the fact that, in preparing for the technical branches of the Services, students have little time to study several comprehensive textbooks. What they need is a single volume containing the essential arithmetic, algebra, geometry, trigonometry and mechanics, dealt with as tersely as possible and with a practical bias.

Mr. Durell's book meets these requirements and, as would be expected from this author, the treatment is lucid and the subject-matter well presented. The ten chapters amply provide the basic mathematical equipment needed by the students for whose use the book is especially intended. A larger space than usual—some twenty pages—has been devoted to tables but, in view of their value to practical students, it is somewhat surprising to find that tables of anti-logarithms have been omitted.

**Elementary Qualitative Analysis**

For College Students. By Prof. J. H. Reedy. (International Chemical Series.) Third edition. Pp. x+156. (New York and London: McGraw-Hill Book Co., Inc., 1941.) 10s. 6d.

**T**HE fact that a third edition of this American manual on elementary qualitative analysis has been issued indicates the undiminished confidence and popularity in which this book is held in the United States. Moreover, it can be confidently recommended to teachers and students in Great Britain as a satisfactory work on qualitative analysis up to intermediate standard.

The book follows the conventional system of analysis for the common metals and acid radicals, but new methods and modifications of older methods have been included in certain cases as time-saving and reliable measures. The use of the centrifuge for facilitating the rapid separation of precipitates is of interest and might be more widely adopted. In addition to instructive details, the manual includes numerous exercises and questions, and is generally written in a style which will stimulate and hold the interest of a student starting on chemical analysis. The price, however, is likely to be too high for most students.

**A New Scheme of Elementary Qualitative Analysis**

By A. J. Mee. (Dent's Modern Science Series.) Pp. x+52. (London: J. M. Dent and Sons, Ltd., 1942.) 1s. 9d.

**A**NY departure from the well-trodden paths of elementary qualitative analysis is a sufficiently novel event to stimulate the interest of all chemists engaged in the teaching or practice of chemical analysis. In this little volume, Dr. Mee describes a new workable scheme for the detection and separation of the common metals, the principal feature lying in the fact that hydrogen sulphide gas is not required in the analytical separations. The poisonous nature and the difficulty of providing adequate supplies of hydrogen sulphide provide an additional recommendation for these new methods, which do not require any reagents not part of the normal stock of a chemical laboratory. For confirmatory tests with certain metals, however,

special reagents are advocated, but the detection of acid radicals follows conventional lines.

The scope of this book broadly covers the requirements of students in qualitative analysis to intermediate standard. Teachers of chemistry are advised to obtain a copy of this book which is very moderate in price, and read it carefully; if there is something to criticize, there is also much to interest and stimulate.

**Intermediate Quantitative Analysis**

By Dr. A. J. E. Welch. Pp. iv+128. (London: University Tutorial Press, Ltd., 1941.) 3s. 6d.

**T**HE small volume under review provides a course of practical exercises in quantitative chemical analysis up to intermediate and Higher School Certificate standard. Since the book is essentially designed to meet the requirements of examining bodies, the emphasis is largely on volumetric analysis, where the use of equivalents and normalities is strongly advocated. There is also a short but adequate section on gravimetric analysis, and many problems and exercises are to be found throughout the text. The book is very moderate in price and can be recommended as a worthy successor to "Elementary Quantitative Analysis" by Briggs and Bausor, which it now replaces in the University Tutorial Press series of text-books.

**World Revolution and the Future of the West**

By Dr. W. Friedmann. (Thinker's Library, No. 88.) Pp. x+118. (London: Watts and Co., Ltd., 1942.) 2s. net.

**D**R. FRIEDMANN, from an originally German and juristic standard, forecasts the fashion in which the present horrible chaos came upon us, and how the direct values should be secured. He is rightly concerned primarily and mainly with Western civilization. The globe has been humanized from the West, the Greco-Romans leaving their human structure to survive the revolutions which have led us to the present. Humanity, imperfectly indeed, passed the consolidatory Roman stage crowned by the glory of Greece. Then a further socializing covers the same ground in Christianity. Without the survival of these three—law, reason, beauty—humanity would not have come to the birth: laid as they have been in fresh revolutions to the present.

The legacy ensures the survival of socialization and lends itself from time to time to quiet lapses, as the eighteenth century, or scientific marvels, from the eighteenth century onwards. The British Empire has served and should still serve as the umbrella: one supposes that with the United States, an ultimate guarantee can be secured.

The main theme of Dr. Friedmann is what he calls the totalization of the West. He describes the methods by which, as in England, the desired advance is secured without conflict. The present crisis takes the form of securing to every individual sufficient to his needs spiritual as well as physical. One is bound to say that the standard of the spiritual is deplorably lowered on the way. The agency of a B.B.C. plants standards of taste far below what would be enjoyed if it continues to enforce the same with damnable iteration. There is a plain duty to lead upward.

It is pleasant to see that Dr. Friedmann, though obviously a communist in theory, lays the greatest stress on preserving as much freedom as consistent with the social fabric holding together. But a brave man will hesitate on prophecies in detail. The world conflict has still to be completed. F. S. MARVIN.