

brought up-to-date and written by experts with direct knowledge of particular processes that detailed information of real value can be secured. Under the editorship of Dr. Morrell we have an example of such a series of monographs for the oil and colour industry of which the volume under notice forms a part.

The expression and extraction of linseed and other less known oils from their seeds, the refining and bleaching of these oils as well as the preparation of boiled, blown and stand oils, receive detailed treatment. The use of these oils in the manufacture of linoleum and patent leather and the employment of drying oils as electrical insulators receive detailed consideration. The aim has been to give a trustworthy account of the most recent information regarding various processes and methods, with a critical survey of the literature by works' experts. Notwithstanding the bias towards the industrial aspect, stress has been laid by the authors on the importance of physical properties in relation to chemical changes. The composition of drying oils and their component acids, with the chemical changes occurring on drying, have been exhaustively treated before discussing manufacturing details. A valuable addition is the good list of references at the end of each chapter.

The book is excellently produced, and in fact for a monograph that will require frequent editions to keep abreast of practice, the finish is, if anything, too durable. The high price of this book, with only 200 pages of text, makes such a remark pertinent.

J. REILLY.

*Three Men Discuss Relativity.* By J. W. N. Sullivan. Pp. xxx+233. (London and Glasgow: W. Collins, Sons and Co., Ltd., 1925.) 7s. 6d. net.

MR. SULLIVAN has achieved something new in the exposition of relativity by writing in dialogue form. One is inevitably reminded of Galileo, but in Mr. Sullivan's book, unlike that of the great Florentine, the characters are not provided with conflicting preconceptions. They are, in fact, not private individuals so much as actors whose parts are made to fit together in such a way as to provide a smooth, uninterrupted account of the theory for the reader. After a brief introduction, six dialogues are set forth, between a mathematical physicist, a philosopher, and an ordinary intelligent person. The mathematical physicist has undertaken to expound the theory of relativity to his companions, who make just the right remarks or ask appropriate questions at frequent intervals. It must be confessed that the ordinary intelligent person is much more intelligent than the sort of person one ordinarily meets with.

From an artistic point of view, the dialogue method as here employed can scarcely be regarded as successful. It does, however, add considerably to the interest of the exposition, and is on that ground justified. The mathematical detail of the subject is almost completely excluded from the dialogues and given in a 45-page summary at the end. Those who wish to obtain an accurate idea of relativity in rather more than its outline and are prepared to expend some mental effort, can do no better than read this agreeable and well-produced volume. "My own indebtedness," writes the author, "is chiefly to Prof. Eddington's 'Mathematical Theory of Relativity.' It is easily the best exposition I have read, and I have adhered to it almost

slavishly in the following pages." It will be gathered that the treatment is not wholly original, but the book is not a superfluous paraphrase of Eddington's work.

*The Geology of the Netherlands East Indies: Lectures delivered as Exchange-Professor at the University of Michigan in 1921-1922.* By Prof. H. Albert Brouwer. Recorded and prepared by Laurence M. Gould. (University of Michigan Studies, Scientific Series, Vol. 3.) Pp. xii+160+18 plates. (New York: The Macmillan Co., 1925.) 3 dollars.

THE thanks of all students of geology are due to Prof. Brouwer and to the University of Michigan authorities for this very readable and well-illustrated digest of our present knowledge of East Indian geology; the more so because a large proportion of the extensive literature published on the subject during the last few years has appeared in Dutch.

Of especial interest are those chapters dealing with the tectonic and volcanic features of the region, and their bearing on modern theories of Alpine structure. The author explains how the configuration of a large part of the Archipelago—in particular the two festoons of islands which surround the Banda Sea—is a direct expression of mountain-building processes still in operation. The foreland is formed by the Australian continent and the bordering Sunda shelf; the rising festoons are actual geanticlines, and the deep, elongated sea-basins between them true geosynclines; the younger arc (the inner one) is characterised by active volcanicity, which is absent in the older one. If the compressive forces now in operation persist, a continental mountain range of the Alpine type may ultimately develop.

*Higher Mathematics: for Students of Engineering and Science.* By Frederick G. W. Brown. Pp. xii+488. (London: Macmillan and Co., Ltd., 1926.) 10s.

THIS work embodies those branches of pure mathematics required by senior engineering students up to degree standard and it covers the field very adequately. There are chapters on determinants, spherical trigonometry, several chapters on differentiation and integration and ordinary differential equations up to simultaneous systems, plane curves and three dimensional geometry. For an attempt to return from the monograph to the 'comprehensive' type of book it is eminently successful, and the numerous examples are well chosen with the correct practical bias. The theoretical parts are weaker in presentation than the practical portion, but not sufficient to vitiate a really useful book.

*Wolfram: Fortschritte in der Herstellung und Anwendung in den letzten Jahren.* Von Dr. Hans Alterthum. (Sammlung Vieweg, Heft 77.) Pp. viii+111. (Braunschweig: Friedr. Vieweg und Sohn A.-G., 1925.) 4.50 gold marks.

THIS useful monograph contains an account of the newer researches on tungsten, its alloys and more important compounds, made since 1910, and is not a complete account of the subject. The localities of the occurrence of tungsten ores, the preparation of tungsten and the physical properties of the metal, together with analytical information and some account of the compounds, are dealt with. There is no index.