

not merely by applying formulæ to them but also in the light of the principles of the theory of error and of correlation. In the present volume, when a formula is required, it is usually either quoted without proof and used for numerical computation or deduced from one already quoted; but surely the results of such a computation can be appreciated only when examined in relation to the basic assumptions made in deducing the formula. Within the narrow limitations the author has imposed upon himself, the treatment is good and the exposition clear. The book is excellently produced.

*Pathologie du sympathique: Essai d'anatomo-physico-pathologie clinique.* Par Prof. Maxime Laignel-Lavastine. Pp. v + 1080. (Paris: Félix Alcan, 1924.) 90 francs.

THIS volume is an exhaustive thesis dealing with the anatomy, physiology, and clinical aspects of the sympathetic system. Few details are omitted from this ponderous work; indeed, the fault lies in the enthusiasm which tends to implicate the sympathetic system in many conditions of obscure origin. Thus few will agree with the author in associating glaucoma, purpura, and osteodystrophies with sympathetic disturbances. In many instances the evidence in favour of autonomic nervous origin is not sufficiently dealt with; for example, in the section concerning gastric crises in tabes, the rôle played by the vagus is briefly dismissed, and the possibility of "vagal crises" as an entity is not mentioned. It is a pity that such an exhaustive work should have just preceded the valuable contributions of Hunter and Royle; their work on the sympathetic innervation of striped muscle and on treatment by ramisectomy is of course not included. The volume concludes with a very full bibliography.

*Les edifices physico-chimiques.* Par Dr. Achalme. Tome 3: La molécule minérale. Pp. 350. (Paris: Payot et Cie, 1924.) 20 francs.

THE principal feature of this book is a series of elaborate diagrams, first of the structure of *atoms*, which are represented as aggregates of spheres of various patterns, and then of *molecules*, which are represented as aggregates of these aggregates. The author has thus succeeded in building up a very elaborate series of molecular models; but as the details of these are purely speculative, they are not of any value as an aid to the study of chemistry. On the contrary, the author's system appears to call for a draughtsman to express even the simplest formulæ, and equations which can be written down in a few seconds in ordinary symbols become as complicated as the design of a new pattern for a carpet. It is difficult to see what can follow from such a system except to create a mistaken impression of the complexity of chemical science.

*Organisation of Vocational Guidance: a Companion Volume to Administration of Vocational Education.* By Arthur F. Payne. Pp. xvi + 438. (New York: McGraw-Hill Book Co., Inc.; London: McGraw-Hill Publishing Co., Ltd., 1925.) 17s. 6d. net.

ALTHOUGH the subject of vocational guidance is as yet in the experimental stage, the literature connected with some of its many aspects is increasing at a very rapid rate—evidence at least of a fairly general interest in it.

This book gives a survey of the chief work done up to the present time and is intended to be of use to all those responsible for advising people about their work in life, and for managers in stores, factories, and workshops. It discusses the various systems of testing intelligence and special aptitudes, normal and abnormal behaviour, physical stigmata, job analysis, as well as the organisation of a vocational guidance bureau. There is a useful bibliography and a large number of charts; it will be a valuable book of reference.

*School Geography: a Critical Survey of Present Day Teaching Methods.* By E. J. G. Bradford. Pp. 104. (London: Ernest Benn, Ltd., 1925.) 7s. 6d. net.

GEOGRAPHY as taught in schools at the present day shows great advances compared with a generation ago, but Mr. Bradford concludes from a wide experience of teachers and teaching that the tendency is to lay too excessive stress on causal connexions. This results in incoherence and a failure of the pupils to visualise world conditions. While deprecating any return to the mere iteration of facts which of old was the whole content of the subject, he pleads for the need of dwelling on other than causal relationships, especially more insistence on location and quantity. In short, he wants to give more precision and coherence to school geography, and this he believes would increase its educational value. The book is a thoughtful contribution to a difficult problem.

*Low Temperature Distillation: Home Oil Supply and the Utilisation of "Waste" Coal.* By Sydney H. North and J. B. Garbe. (The Specialists' Series.) Pp. vii + 216. (London: Sir Isaac Pitman and Sons, Ltd., 1925.) 15s. net.

THE authors give a reasoned and critical account of the various processes used in the low-temperature distillation of coal. The problem is one of very great importance, and although authorities differ in their estimates of the usefulness and economics of the method, it is certain to attract an increasing share of attention. The present volume may be welcomed as a useful contribution to the literature of the subject. It is well illustrated.

*Agitating, Stirring and Kneading Machinery.* By Hartland Seymour. (Chemical Engineering Library: Second Series.) Pp. 139. (London: Ernest Benn, Ltd., 1925.) 6s. net.

THE various types of machinery used for mixing liquids and solids are described, but theory has been omitted, "in the belief that this method of treatment will be of more service to the practical chemical engineer." A little theory would perhaps have been found interesting by the general scientific reader, who must feel that the book lies outside his province. It should be useful to those to whom it is addressed, and is well illustrated.

ERRATUM.—By a most regrettable oversight, the notice of the volume "The Atmosphere and its Story," by Ernest Frith, and that of "Why the Weather?" by Dr. Charles Franklin Brooks, were transposed. That appearing in NATURE of August 8, p. 204, refers to Dr. Brooks' book, while the notice in the issue of August 15, p. 241, should have appeared under the bibliographic details of Mr. Frith's book.