

The Systematic Identification of Organic Compounds : a Laboratory Manual. By Prof. Ralph L. Shriner and Prof. Reynold C. Fuson. Pp. ix+195. (New York : John Wiley and Sons, Inc. ; London : Chapman and Hall, Ltd., 1935.) 11s. net.

INTEREST in organic identification work in the University of Illinois was first aroused by Prof. C. G. Derick in 1908, and the course was developed by Prof. O. Kamm, whose book on the subject, published in 1922, is widely known. The present volume is based on a one-semester course of two three-hour laboratory periods a week, now in force at the University of Illinois for students who have had a year of organic chemistry.

By means of a systematic examination of its solubility relationships, the unknown organic compound is relegated to one of nine solubility classes. Classification reagents are then introduced, and the search is narrowed to members of a few homologous series. Physical constants are next noted, and suitable derivatives are prepared. The subject is handled on these lines in a clear and up-to-date manner, and the book contains full practical directions, and many tables of physical constants. A later chapter deals with the separation of mixtures.

The authors have provided a useful manual for a type of work in which "the student's faculty for careful observation, his ability to make correct deductions from his observations, and his originality in planning his work are at a premium". It is clear that this sort of training provides excellent experience for those preparing for research work in organic chemistry.

Industrial Electronics

By F. H. Gulliksen and E. H. Vedder. Pp. xiv+245. (New York : John Wiley and Sons, Inc. ; London : Chapman and Hall, Ltd., 1935.) 17s. 6d. net.

If the reader is not full of wrath when he discovers, by diligent search or by stumbling over a single sentence on page 41, that this book denies communication engineering a place in industry ("This type of equipment is used primarily for communication purposes, which is outside the scope of this book"), he will like it ; its English is in general well above the level of the unhappy example which has intruded itself here. Even without its applications in the communications industry, "industrial electronics" is a wide subject of very general appeal. The engineer will find the book interesting and valuable, not merely for the large amount of detailed information which it provides on applications already effected, but also because it is stimulatingly suggestive of new applications and developments yet to be made. The authors have succeeded in compressing a great deal of information into a relatively small compass, but the compression has been carried too far ; clarity and ease of reading have been sacrificed. Fig. 85, p. 67, will suffice as an example of loss of clarity which might have been avoided by adding three lines of text.

Among the applications outlined are light-sensitive controlling, indicating and recording devices (such as door controllers, smoke indicators, colour matchers),

timing devices for welders, rectifiers and inverters, etc. A final and valuable section of the book deals with electronic regulators, including anti-hunting circuits, speed and voltage regulators, etc.

The book is well worth reading ; its very defects stimulate thought.

Der Schwammspinner (*Porthetria dispar* L.) in Eurasien, Afrika und Neuengland

Von Dr. Karl E. Schedl. (Monographien zur angewandten Entomologie, herausgegeben von Prof. Dr. K. Escherich, Nr. 12.) Pp. iv+242. (Berlin : Paul Parey, 1936.) 16 gold marks.

THE main idea, underlying the production of the monographic series to which this memoir belongs, is to provide the latest and fullest scientific information with respect to specific subjects of economic importance. The purely scientific and economic aspects of entomology now intergrade so much that Dr. Schedl's contribution, like its predecessors, contains matter of interest to workers in both these fields. Its subject is the insect known in English as the gypsy moth which, although now extinct in Great Britain, is a pest of forest and shade trees more or less all through the South Palæarctic region to Japan. Its entry and spread in North America, and the prolonged campaign for its control on that continent by biological means, have often been recounted. In the present memoir a very complete account will be found of the biology, influence of environment, distribution, natural enemies and methods of control of this familiar insect. There is also a useful summary of Goldschmidt's famous work on sex determination, which has brought the name of gypsy moth to the notice of many biologists. The reader will, therefore, find little to complain of on the score of completeness of information, while the long list of references given will satisfy any crave to delve further into the subject. The work is well up to the standard of other contributions in its series and needs no further commendation.

A. D. I.

Die Blatt-Minen Mittel- und Nord-Europas :

Bestimmungs-Tabellen aller von Insekten-Larven der verschiedenen Ordnungen erzeugten Minen. Von Prof. Dr. Martin Hering. Lief. 2 : Brunella—Filipendula. Pp. 113-224+2 plates. (Neubrandenburg : Gustav Heller ; 's-Gravenhage : W. Junk, 1936.)

THE attention of entomologists and botanists is directed to "Die Blatt-Minen Mittel- und Nord-Europas" (including England) edited by the well-known authority, Dr. Martin Hering. It is to be completed in 5-6 Lieferungen, each being issued at a subscription price of 12 gold marks, and the publishers state that the work will be completed by the middle of 1937. The whole monograph will comprise about 700 pp. with 500 text-figures and 7 plates. The part to hand (Lieferung 2) is arranged alphabetically under plant genera : it consists of diagnostic tables of all known leaf-miners affecting each genus referred to. The work is evidently designed to facilitate easy reference and will cover the chief aspects of its subject.