of topics, nevertheless it is truly stated by the authors in the preface that "in the first eighteen chapters we assume nothing that is not commonly taught in schools, and any intelligent university student should find them comparatively easy reading. The last six are more difficult, and in them we presuppose a little more, but nothing beyond the content of the simpler university courses." The authors have discussed the distribution of primes, Farey series, the geometry of numbers of Minkowski, irrational numbers, the theory of congruences, Fermat's theorem and related topics, decimal representation of numbers, continued fractions, approximation of irrationals by rationals, algebraic integers, Diophantine equations, the familiar arithmetical functions, partitions, representation of numbers by two or four squares, Kronecker's theorem in one or more dimensions. In every case the discussion given is on an elementary level so far as technical knowledge is presupposed, but on a genuinely professional level as far as insight and thoroughness are concerned.

A valuable feature of the book is the bibliographic material in small print at the end of each chapter, which furnishes an excellent orientation in the relevant literature.

It is much to be hoped that other mathematical works having the appeal of the book by Hardy and Wright will soon be written; and that a much wider public than at present will come to realize how through such works the highest artistic and intellectual enjoyment may be obtained, only to be compared with that to be derived from literature, art and music.

GEORGE D. BIRKHOFF

THE PRINCIPLES OF INSECT PHYSIOLOGY

The Principles of Insect Physiology. By V. B. WIGGLESWORTH, London School of Hygiene and Tropical Medicine. 434 pp., 316 illustrations. London, Methuen and Company, Ltd. 1939. 30 shillings net. New York, E. P. Dutton and Company.

WITH the appearance of "The Principles of Insect Physiology" the subject of entomology acquires a new dignity and the right to claim a place in the higher ranks of biological science. Too long we have been fed with mere "wonders" and "marvels" of insect life. The numerous citations given in the present work show, however, that during the last few decades many serious workers, unproclaimed to the general public, have been diligently searching for the underlying causes and principles of the much-heralded wonders and marvels, with the result that we now have a full-fledged text on insect physiology. The author of the book, himself a leading investigator in this field, has brought together in admirable form the gist of what may now be regarded as a sound basis for the scientific study of insect functions and behavior. The book should be welcomed particularly by all teachers and students of entomology, since it is well recognized that further advance in economic entomology must depend largely on an understanding of insect physiology.

Unfortunately it is not possible for most entomologists to be trained physiologists, but the style of "The Principles of Insect Physiology" is such that the text can be read and understood by any entomologist whether or not he has been schooled in physiological technique and terminology. The treatment is informative rather than discussional, and the book is not a manual of laboratory practice. The subject-matter is divided into 15 chapters under the following headings: Development in the Egg; Integument; Growth, Muscular System and Locomotion; Nervous System; Vision; Mechanical and Chemical Senses; Behaviour; Respiration; Circulatory System and Associated Tissues; Digestion and Nutrition; Excretion; Metabolism; Water and Temperature; Reproductive System. Each chapter is accompanied by a list of references, cited by numbers in the text, varying from 48 to 265 for single chapters, a total of over 2,000 with a few repetitions. The 316 illustrations are entirely line drawings, and thus give a pleasing uniformity to the general appearance of the pages. Anatomy and histology are given briefly wherever necessary for the elucidation of the subject-matter, and in many cases the up-to-date information on these subjects contributes much to the value of the book.

R. E. SNODGRASS

SOCIETIES AND MEETINGS

THE ROYAL SOCIETY OF CANADA

THE annual meeting of the Royal Society of Canada was held at the invitation of the University of Montreal in the new Botanical Building from May 22 to 24. A large attendance of fellows from all parts of Canada had an opportunity of seeing this splendid new development of a Botanical Garden in Montreal with its research laboratories, greenhouses and large park still in the process of completion as a works project financed by civic and government authorities and under the direction of Frère Marie-Victorin, of the University of Montreal.

The presidential address was delivered by Dr. Victor Morin, who spoke on "La Chanson Française a travers les siecles," with interpretations of songs by the *Quatuor des Alouettes.* This address was preceded by the introduction of new fellows and by the presentation of medals awarded by the society. The Flavelle Medal