

chemicals and drugs, and those employed in clinical and bacteriological diagnosis and analysis. We find a full account of Abderhalden's serum reaction, of a bacteriological examination of distilled and drinking waters, with a table of the analytical results obtained, and the conclusions founded on them, of the various methods for performing the Wassermann reaction for syphilis, and of the chief advances made in bacteriological technique. This volume will be found invaluable in the chemical, bacteriological, and pharmaceutical laboratory. Martindale's Extra Pharmacopœia should find a place on the library shelf of every medical practitioner and pharmacist.

(2) In 1904, owing to the increasing size of "Squire's Companion," it was decided to subdivide the work, and to publish it in two parts, "Squire's Pocket Companion" and "Squire's Companion." "Squire's Pocket Companion" is the smaller volume, containing information on such matters as are commonly arising in the ordinary course of prescribing and dispensing, and is written specially for the medical profession. This second edition of the work follows the lines of previous editions of the Companion, and is arranged in alphabetical order. The principal monographs are divided into distinctive headings, a description of the drug with its usual method of preparation, solubility, medicinal properties, dose, prescribing notes, incompatibles, official preparations, not official preparations, and antidotes.

The solubilities of chemical substances have been completely revised and the medicinal properties brought thoroughly up to date, the latest references being included. The doses are given in both the imperial and metric systems, and are those generally employed. The prescribing notes have received particular attention, and the revision has been very thorough and complete.

The chapter on therapeutic agents of microbial origin has been almost completely re-written by Prof. Hewlett; it gives full information on anti-toxins, serums, tuberculins, vaccines, etc. A list of British and foreign spas is included, also a therapeutical classification of remedies, with a list of those applicable for special ailments. A full general index enhances the value of the work, which will be found of the greatest service by the medical practitioner and pharmacist.

MIND IN ANIMALS.

The Investigation of Mind in Animals. By E. M. Smith. Pp. xi+194. (Cambridge: At the University Press, 1915.) Price 3s. net.

THIS is a book intended for the general reader rather than for the investigator; and, considering its limited size, it is a very admirable
NO. 2389, VOL. 95]

presentation of the best methods by means of which the problem of the nature of animal conduct is now being investigated. This problem is primarily one for the naturalist who knows very intimately the habits of the organisms that are to be studied. Yet experimental psychology is now a science with well-developed methods and criteria, and with a technique of its own, and one cannot consider the multitude of instances of apparently intelligent behaviour in the lower animals without feeling that much of the lack of critical examination of these cases is due to imperfect knowledge of this technique. The student of biology will find the author's short accounts of the experimental methods devised by Jennings, Yerkes, Thorndike, and others very serviceable, and the bibliography contains references to most of the important memoirs.

The author avoids controversy and discussion as much as possible, and short statements of his own conclusions would have added to the value of the book. He relegates the theory of tropisms to a very subordinate place, refusing it that generality that has occasionally been claimed for it. Jennings's interpretation of the apparently random movements of certain protozoa as based upon a method of trial and error is accepted, but it is argued that rigid determinism is nevertheless involved, although plasticity of behaviour is implied in Jennings's interpretation. The conclusion is not very clear. The book contains a fair account of the admitted phenomena of "homing" among birds and insects. There is a short summary of the evidence in favour of ideation in animals other than man; and in the last chapter the reader will find too short a reference to the wonderful thinking horse which in ten seconds found the fourth root of the number 456976! J. J.

OUR BOOKSHELF.

The Principles of Rural Credits as Applied in Europe and as Suggested for America. By J. B. Morman. Pp. xviii+296. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1915.) Price 5s. 6d. net.

ALTHOUGH this book is written primarily with the idea of calling attention to the problems of credit as they affect farmers in the United States and Canada, it contains much of interest to any student of rural economics. The whole subject has been investigated recently by the United States Commission on Rural Credits, and the present volume is largely a condensed and popularised version of the Commission's reports to Congress. In this way the book falls naturally into two parts: the first consists of the information collected from an exhaustive study of the systems of rural credit in operation in Europe; in the