

to show why induction by simple enumeration is a fundamental mode of proof, and that all those who have thought they can do without it have done so only by the aid of sophisms; also, that it can increase the probability of a hypothesis, even when the new facts observed should do nothing but repeat without variation facts already known. The author endeavours, finally, to show that it is not actually demonstrated by any procedure whatsoever how inductive reasoning can raise the probability of a law to the point of indefinite proximity to a certainty. The penetrating analysis of these various theses would have no doubt led the author to a more positive construction, but his premature death has unfortunately terminated a career which would have been a credit to scientific philosophy. T. G.

*School Certificate Magnetism and Electricity.* By Dr. Harold Toms. (Pitman's School Certificate Series.) Pp. viii+440. (London: Sir Isaac Pitman and Sons, Ltd., 1930.) 5s.

THE author justifies the appearance of this new text-book in a preface, where it is stated that the traditional division of the subject into magnetism and voltaic and static electricity has not been adhered to, and that an effort has been made to present the facts as one homogeneous and inter-related set of phenomena rather than as three vaguely connected subjects. Emphasis is laid on mechanics and units since experience has shown that "only those who realise that mechanics can be applied to electrical and magnetic phenomena ever acquire a thorough grasp of the subject". The object has been "to provide a solid groundwork for those who, at a later stage, intend taking an advanced course".

The exposition is clear rather than detailed, and, in spite of the size of the book, is in some respects superficial. A chapter on magnetic theory is entirely devoted to Weber's theory, and gives the impression that magnetism is a simple matter, wholly understood, and presenting no difficulties. One feels that even an elementary book should direct some attention to the great strides made on the theoretical side in recent years. Alternating currents, the dynamo and accumulators, are very briefly dismissed; hysteresis and the nickel cell are not mentioned. N. M. Blich.

*The Laboratory Mouse: its Origin, Heredity and Culture.* By Dr. Clyde E. Keeler. Pp. viii+81. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1931.)

IN this monograph, by the author of a series of papers on inherited abnormalities, especially of the retina, in the mouse, the early chapters deal with the systematic position and history of house and domesticated mice. There is much curious information: we learn, for example, that, according to the London Pharmacopœia of 1667, "A flead mouse dried and beaten to powder, and given at a time, helps such as have Diabetes"; that a special word for the dominant spotted variety of mouse

appears in the earliest Chinese lexicon, written 1100 B.C.; and that "The clergy of the Middle Ages never ceased to comment upon the libidinous habits of mice. Indeed, mice were frequently raised by curious churchmen in order to observe their wicked actions".

The origins of the different fancy breeds are traced out so far as possible. A chapter follows, cataloguing and tabulating the various gene-mutations that are known in mice, with full descriptions of their effects; this leads up to an account of heredity, normal and abnormal. A chapter on the technique of breeding and keeping mice, five pages of photographs of different varieties, and a bibliography of 184 titles conclude a very admirable little volume. G. P. W.

*The Bacteriophage and its Clinical Applications.* By Prof. F. d'Herelle. Translated by Prof. George H. Smith. Pp. viii+254. (London: Baillière, Tindall and Cox, 1930.) 18s. net.

THIS book, based upon the Lane Lectures delivered by the author at Stanford University, California, in 1928, is addressed primarily to practitioners of medicine. The subject of bacteriophage is a complicated one, and still in an imperfectly understood state. The history of its discovery, its nature, and its relationship to bacterial mutations, infectious diseases, and recovery and immunity, are outlined quite clearly and simply. It is not within the scope of a book of this sort to enter exhaustively into the conflicting theories of the nature of the bacteriophage, nor does it do so. The author's views as opposed to those of Bordet and his followers are given in some detail. About sixty-five pages are devoted to the clinical application of the bacteriophage. Records of its use in enteric infections, infections due to pyogenic cocci, streptococcus, and bubonic plague are included.

The book is interesting. But it is unjustifiable to conclude, as its author does, that in bacteriophage lies an explanation of all immunity to the exclusion of generally accepted theories. The clinical application is as yet far from being established.

*Handbuch der biologischen Arbeitsmethoden.* Herausgegeben von Prof. Dr. Emil Abderhalden. Lieferung 346. Abt. 9: *Methoden der Erforschung der Leistungen des tierischen Organismus*, Teil 7, Heft 1. *Methoden der Tierhaltung und Tierzucht.* Pp. 226. (Berlin und Wien: Urban und Schwarzenberg, 1931.) 13 gold marks.

THE present section of this work contains four articles on the following subjects: (1) the collection, study, and rearing of tardigrades, by Prof. Marcus, of Berlin; (2) and (3) the collection, rearing, and investigation of ticks and of fleas, by Prof. Pawlowsky, of Leningrad, two valuable articles, stressing, as might be expected, the pathological significance of the parasites; and (4) methods of investigating subterranean faunæ, by Prof. Chappui, of Klausenberg, an article including much useful general information about the ecology of caves and underground streams. G. P. W.