classification, there will obviously be differences of opinion; we think, however, that the Röntgen Society would be better in the Physics Section than under Chemistry and Photography, while the Spelæological Society (University of Bristol) is certainly archæological rather than biological. The index, however, soon smooths out little difficulties of this kind. The new address of the British Cast Iron Research Association, at 24 St. Paul's Square, Birmingham, was probably announced too late for insertion. We are still of the opinion that all the research associations in Great Britain now in existence should be included and indexed under 'Research.' Some of the more recently formed scientific bodies have not yet appeared in the volume, but meanwhile we must be grateful for the valuable collection of data with which the publishers of this annual continue to supply us.

Elemente der exakten Erblichkeitslehre: mit Grundzügen der biologischen Variationsstatistik. Von Prof. Dr. W. Johannsen. Dritte deutsche, neubearbeitete Auflage in dreissig Vorlesungen. Pp. xi+736. (Jena: Gustav Fischer, 1926.) 32 gold marks.

THIS well-known book, which was first published in 1909, has now reached its third edition. It is still divided into thirty 'lectures,' but various additions and alterations have been made. More attention is paid to Sheppard's correction for class variants and to Bravais' formula for reckoning the coefficient of correlation. In the latter formula the value of every variant, and not merely that of the classes, enters into the result, and the method can also be used for alternative as well as quantitative variations. The chapters on selection have been extended and those on Mendelism re-written in the light of the more recent work. The word 'gen' is used throughout for the hereditary unit, and Bateson's term 'allelomorph' has been shortened to 'allele,' with a result which would not be very happy if the word were used in English form. In its present form the work will continue to be of great use to geneticists, since it gives in convenient form the various statistical methods used in genetical investigations. But more than this, it is a discussion from the author's characteristic point of view of large fields in experimental genetics. R. R. G.

Prehistoric Man and the Cambridge Gravels. By the Rev. Frederick Smith. Pp. viii+121+30 plates. (Cambridge: W. Heffer and Sons, Ltd.; London: Simpkin, Marshall and Co., Ltd., 1926.) 7*s.* 6*d.* net.

THE Rev. Frederick Smith, the author of a book on the Stone Ages in North Britain and Ireland, has been engaged in archæological research for more than sixty years. He began to collect from the Cambridge gravels when he was a boy, and he returned to his old hunting-ground in 1924. He has collected many thousands of specimens, and the constant recurrence of certain forms has convinced him that his specimens are implements of various kinds—arrowheads, spear heads, hatchets, knives, and flakers, piercers, and saws—and that certain of them were fitted with shafts. In addition he has found sculptures—a baboon, eagle's beak, an oyster shell, and so forth. The date attributed to them is pre-Chellean, Chellean, and Acheulean. Mr. Smith argues that though the early archæologists were ridiculed and rejected, their views were afterwards accepted, and by analogy claims indulgence for his own views. The argument is as dangerous as its converse. Mr. Smith figures a number of the specimens which he maintains are implements, showing them with and without hafts, but his illustrations still fail to convince.

Handbuch der biologischen Arbeitsmethoden. Herausgegeben von Prof. Dr. Emil Abderhalden. Lieferung 199. Abt. 9: *Methoden zur Erforschung der Leistungen des tierischen Organismus*, Teil 4, Heft 2. *Methoden der Erforschung bestimmter Funktionen bei einzelnen Tierarten. Methoden zur Erforschung des Vogelzuges*, von J. Thienemann; *Methoden zur Behandlung der Atemphysiologie der Insekten*, von Albert Koch; *Die Verfahren zur Erforschung der Tierfluges*, von Oskar Prochnow. Pp. 123-294. (Berlin und Wien: Urban und Schwarzenberg, 1926.) 7·50 gold marks.

THE first article on the speed and height of the flight of birds is a very brief account of the subject. In the second one, on the respiration of insects (about 80 pages), the function of the spiracles and the movements which ventilate the tracheæ are discussed, and the principal methods for investigating the movements are described and illustrated. Due attention is given to the physical and chemical aspects of the problem, *e.g.* the technique of gas microanalysis. The third article discusses the flight of insects and of birds and the methods which have been employed in the elucidation of the movements and of their mechanics.

Surface Equilibria of Biological and Organic Colloids. By Dr. P. Lecomte du Noüy. (American Chemical Society Monograph Series.) Pp. 212. (New York: The Chemical Catalog Co., Inc., 1926.) 4.50 dollars.

IN the measurement of surface tension the 'ring' method has the great advantage of rapidity, so that variations are readily discovered; and in the hands of the author of this volume it has proved a most useful weapon of research. The book deals largely with the work of the author, but although its scope is therefore not so wide as the title might imply, it is full of interest to the biologist and the physicist. An ingenious method of deducing the three dimensions of the sodium oleate molecule (leading to a value for Avogadro's constant in remarkable agreement with that obtained in very different ways), the size of the albumin molecule and the differentiation of normal and immune serum are among the subjects dealt with in this work, which should prove singularly attractive even to those who are not specialists.
P. C. L. T.