

considerable attention, but with no marked result. Yet it is a matter of some moment, especially in the application of the results of science to the practical affairs of life. Mr. Bradley, boldly ignoring difficulties, has presented his readers with an analysis of the English character and achievement in the various departments of life—religion, politics, literature, science, and art—which is based upon the racial differentiation into Nordic, Alpine, and Mediterranean. He has an acute observation, a wide knowledge of his fellow-countryman, and a pretty sense of humour. His courage in essaying a difficult task will no doubt receive its due reward in a shower of hostile criticisms; but we hope that his critics will at least be grateful that he has given them something to criticise and that his mistakes may lead to the elaboration of a sounder method. Mr. Bradley, in evaluating racial character, relies upon material which ultimately is based upon impression. Until the psychologist can devise some objective method of determining and evaluating racial mental characters, study of the question is rendered nugatory by the personal equation.

*Leitfaden der praktischen Experimentalphysik: für Vorlesung und Unterricht.* Von Dr. Reinhard Mecke. Unter Mitwirkung von Dr. Anton Lambert. 2. Aufl. vi + 195. (Berlin: Julius Springer, 1926.) 9-60 gold marks.

THIS useful work is a reprint of the technical advice concerning physical lecture experiments given in the introductory volume of Geiger and Scheel's handbook of physics, which has appeared in 24 volumes. It describes 533 lecture experiments covering the whole range of physics. Many of these are new, and in all of them due consideration is paid to the modern resources at the disposal of the experimenter. This applies particularly to the thermionic valve. We notice elegant methods of demonstrating stream lines by means of coloured liquids, the Johnsen-Rahbek effect of friction due to small currents, experiments with the speaking arc, and some very pretty and ultra-modern spectroscopic demonstrations. A valuable feature of the book is the addition of the essential definitions and formulæ, together with the chief numerical data. As the work is not a text-book of physics, nothing but what is essential to the success of the experiments is given, and given in the smallest compass. But wherever desirable, references to original papers or text-books are appended. Altogether an admirable book.

*The Caves of Mendip.* By H. E. Balch. (The Somerset Folk Series, No. 16.) Pp. 82 + 18 plates. (London: Folk Press, Ltd., 1926.) 2s. net.

IN this little book, which forms one of a Somerset Folk Series, the author, whose work in cave exploration has long been so well known in the west of England, gives a fascinating account of what he terms elsewhere the 'Netherworld of Mendip.' Some of the adventures described, such as those in the Lamb Lair, Harptree, and in Eastwater Swallet,

show that cave exploration may afford all the risks of mountaineering with the additional possibilities of getting drowned or wedged in a narrow passage. An impressive point is the evidence given of the existence of vast caves which have never yet been reached. The cave to which most space is allotted is naturally Wookey Hole, and a few illustrations of the remains left by its Palæolithic and later inhabitants are reproduced from the author's larger work on the subject. Other illustrations are from photographs by Mr. J. H. Savory, to whose keenness and skill all Somerset spelæologists owe so much. The author points out that much work is in progress or remains to be done on the caves of the Mendips, and in this connexion allusion may be made to the admirable work carried out since the War by the Spelæological Society of the University of Bristol.

*Elementary Algebra.* By F. Bowman. Part 2. Pp. viii + 431. (London: Longmans, Green and Co., Ltd., 1927.) 6s.

THE second part of Mr. Bowman's "Elementary Algebra" contains much of the modern analysis which is generally known as 'higher algebra.' Beginning with convergency and the usual series, he passes on to the complex variable and eventually discusses the fundamental theorem of algebra that every equation has at least one root. The consequence of this arrangement is to bring determinants, permutations, and combinations at the end of the book.

The treatment throughout is admirable, especially in the chapters on convergency and complex numbers. Geometrical illustrations are used in an instructive manner and care taken to clear up small points which create difficulties to beginners, e.g. on pp. 19 and 28.

It seems unnecessary to assume that students who are reading the algebra covered by this book will not be familiar with some analytical geometry and calculus, and the space given to these subjects might well have been used to give a fuller treatment of convergency and thus make the book more useful for those preparing for mathematical scholarships at universities.

*Animal Mind.* By Frances Pitt. Pp. 340 + 22 plates. (London: George Allen and Unwin, Ltd., 1927.) 15s. net.

MISS PITT's work is the modern version of the old anecdotal history which Edward Jesse and others made familiar to early-Victorian naturalists. But the new version is much revised and improved, for Miss Pitt's knowledge of the ways of common birds and mammals is deep, and in endeavouring to interpret habits and incidents she is seldom betrayed into the facile explanations which often satisfied the earlier writers. The observations are acute and reveal many striking facts well worth testing in a wider field, such as the response of the eating instinct of a young fox to the presence of a trace of fur, while plain flesh was ignored. The book is well adapted for the general reader as well as for the trained naturalist.