

senses have appreciated in simple yet delightful language which cannot fail to awaken in his reader that intense enthusiasm and love for Nature which he himself undoubtedly feels.

In this book Mr. Collett guides us pleasantly through the year, pointing out the sign-posts which mark the progress of the weeks and months: the awakening of the spring, the arrival of the birds on spring migration, the intense bustle and activity of the early months of the year, the quieter and more matured beauty of summer, the renewed activity of autumn with its preparation for the winter, and the calm peace of the winter months with always the promise of spring and life.

The book is full of useful facts and details which only the true field naturalist can acquire and observe. We regret that there is no index by means of which ready reference to these first-hand observations can be made.

Radio Receiving for Beginners. By Rhey T. Snodgrass and Victor F. Camp. Pp. 99. (London: Macmillan and Co., Ltd., 1922.) 3s. 6d. net.

THIS is a work professedly intended for those with very limited knowledge of wireless matters, but the author, in his endeavour to avoid technicalities in the introductory portion, has rather missed the opportunity of presenting the elements of the subject in a sufficiently tangible form for the reader, if really unacquainted with the principles of wireless working, to pick up readily the full meaning of the excellent chapters which follow. In these, we are conducted progressively through crystal reception, plain valve reception, regenerative working, and single and double valve amplification. A good typical arrangement of connexions is given in each case, but it is understood that many variations can prove equally satisfactory. All this part of the book is thoroughly practical, and its utility is not greatly interfered with by the fact that it refers to American conditions alone. The general hints and the chapter on aerial construction are full of useful points, and explanatory notes on some of the individual pieces of apparatus which make up the complete equipment are contained at the end. The author makes it amply clear that wireless reception requires care, skill, and practice to get really good results, and is a good deal more than buying a complete outfit and "listening in" with a telephone

Applied Calculus: An Introductory Text-book. By F. F. P. Bisacre. Pp. xvi + 446. (London: Blackie and Son, Ltd., 1921.) 10s 6d. net.

THE adjective "applied" is used by Mr. Bisacre to imply "the treatment of practical problems being preceded by a fairly full discussion of the necessary theory." We thus get a competent elementary account of the differential and the integral calculus, followed by applications to curves, maxima and minima, electricity and magnetism, chemical dynamics and thermodynamics. The chapter on electricity and magnetism is too short, while that on thermodynamics is quite long. An attempt is made to clear up the mystery of limits, but the success would be more certain if the example used for the purpose were not the rather trivial one of finding the limiting value of

x^2 when x becomes equal to 10. It is doubtful whether "epsilonology" is at all in place in such a book, and the practical student will scarcely be impressed with its value in view of the author's treatment. The tables should have been more extensive; as they stand their usefulness is very limited.

Interesting features of the book are photographs and biographies of pioneers in the calculus and its applications. The mottoes at the heads of the chapters are often cleverly chosen, like "A snapper-up of unconsidered trifles" for the chapter on integration.

S. B.

The Care of the Adolescent Girl: A Book for Teachers, Parents, and Guardians. By Dr. Phyllis Blanchard. Pp. xxi + 201. (London: Kegan Paul and Co., Ltd., 1921.) 7s. 6d. net.

In her foreword to this book, Dr. Phyllis Blanchard explains that its object is to help teachers, parents, and guardians to provide adolescents with definite information concerning their own nature and to point the way to a proper utilisation of their energies.

After introducing the views of various authorities, Dr. Blanchard considers the instincts of the adolescent girl and the resulting conflict and repressions, and later, the pathological results of these repressions. The most important chapter is that devoted to the sublimation of the sex factor into other activities.

It appears that the author considers the adolescent conflict as entirely sexual in nature; but its solution, which may be described as an adjustment to the perpetual mate, is not the only one in which the guardian and teacher must assist. The adjustment to society, the failure in which gives us the recluse, the crank, and the social rebel, is practically ignored. An adjustment to the conception of the infinite, failure in which leads to the conflict found in nearly all agnostics and materialists, is only dealt with as a method of sublimation of the sex factor; from this point of view the author evolves a Christianity which, as Dr. Scharlieb states in her preface, is scarcely to be recognised as Christianity by those who have been brought up in any of the orthodox schools.

Hyperacoustics. By John L. Dunk. Division II. Successive Tonality. Pp. xi + 160. (London: J. M. Dent and Sons, Ltd.; New York: E. P. Dutton and Co., 1921.) 5s. net.

THE first division of the author's work, "Simultaneous Tonality," was published in 1916 and was shortly afterwards reviewed in these columns (vol. 98, p. 306, December 21, 1916). At least one-third of the present volume is devoted to a "brief résumé" of the earlier book, and then the author passes on to the new aspect of his subject, "Successive Tonality." The method of treatment is similar to that adopted previously, and there is little to add to the notice of the first volume. The nomenclature is so complex that a glossary, occupying six pages of the text, is provided for the convenience of the reader. The author recognises the difficulty clearly: "The jargon of each particular science is a real obstacle, not only to the acquisition of knowledge, but to the sympathetic understanding by workers in parallel fields, who, occupied with their own formulæ, tend to be repelled