Heat and Energy. By D. R. Pye. (Clarendon Science Series.) Pp. xii + 211. (Oxford: Clarendon Press; London: Oxford University Press, 1923.) 5*s.* net.

As stated in the preface, this book is not designed to be a text-book in the ordinary sense of the word. It is intended to be read by the advanced schoolboy to supplement the detailed instruction he has received in the class-room and the laboratory, with the view of imparting a broader conception of energy in its different forms. The first six chapters are devoted to heat, the chief phenomena being described and explained with less detail than is customary in the ordinary text-book. The relation between heat and work is then dealt with, followed by chapters on energy as light and sound. The remaining part of the book is taken up with practical applications of energy in the production of power, warming, ventilation, and refrigeration, the principles involved being clearly explained.

On these lines the author has produced a very readable volume, but it is difficult to see why he fails to give an account of electricity as a form of energy, as in these days almost every boy is interested in electricity through the medium of "wireless." A further addition, in the form of a few pages on the measurement of high temperatures, might be recommended, not only because of the practical importance of the subject, but also for the interest it creates in the mind of the young student of science. Apart from these omissions, however, there is no doubt that the careful reading of this book by an intelligent schoolboy would give him a much wider outlook than that provided by the ordinary text-book. C. R. D.

The Dance of Life. By Havelock Ellis. Pp. xiv + 340. (London, Bombay and Sydney: Constable and Co., Ltd., 1923.) 12*s.* net.

THE main contention in "The Dance of Life" is that life is an art, as its expressions in morals and religion (which the author calls "mysticism"), in writing and thinking, and even in science, are arts, appropriately typified by the art of dancing. Life, in all its forms, is creative, the result of an impulsive outflowing. Accordingly, rigid laws, externally imposed, are really inapplicable to it. The dynamic is refractory to regulation by the static. What law there is must needs be from within; the formulation of the impulse of which it is the law. Mr. Havelock Ellis is not the only prophet of this doctrine in recent times; and, indeed, its underlying thought is a very old one indeed—a thought never quite forgotten even when the dynamic movements of reality were caught and crystallised in the static formulæ of philosophy and science. But it is none the less, when stated in isolation, a paradoxical view; and not least so when it is applied to a solution of the social problems of the present day. Yet "The Dance of Life" is a very stimulating and, indeed, challenging book, in itself a work of no mean art. Though in appearance roughly flung together, its several chapters have a single thread of thought—the view to which allusion has been made—running through them all. Philosophers of many schools and men of science alike may find much to disagree with in this book; but none can read it without interest, and few without some profit.

The Subject Index to Periodicals, 1920. Issued by the Library Association. F: *Education and Child Welfare.* Pp. 29. (London: Grafton and Co., 1923.) 4*s.* net.

THE Library Association maintains in this section of its Subject Index the high standard of quality of the earlier issues, but when one compares it with the American "Readers' Guide," the 1919–21 volume of which was published last year, one cannot but regret that the English Index is so deeply in arrear. It is true that it gleans over a much wider field, but it is questionable whether it would not be better to speed up the work even though this should necessitate some restriction of the sphere of operations. In this Education and Child Welfare section, professional and technical education, mental tests, the teaching of citizenship, languages (especially Latin), economics, geography, mathematics, and religious education all figure largely.

The articles indexed under science teaching are chiefly from the *School Science Review* and *Parents' Review*, but include some from the *Revue Pédagogique*, *Science Monthly*, and NATURE. The quarterly *Educational Record* published by the American Council on Education does not appear to be included within the scope of the work. It contained in 1920 important articles by President A. T. Hadley, Prof. G. D. Strayer, Dr. S. P. Capen, and other well-known authorities, which might with advantage have been mentioned in the Index.

Outlines of the Calculus for Science and Engineering Students. By Dr. Terry Thomas. Pp. 127. (London: Mills and Boon, Ltd., 1922.) 3*s.* 6*d.* net.

MANY students will find Dr. Terry Thomas's latest book of considerable value, not for private study of the subject, but also for use with oral lessons and for revision purposes. Although Dr. Thomas's brevity is a welcome change from the prolixity of some recent mathematical text-books, it is yet too pronounced a feature in the present volume, reducing the subject-matter almost to the tabloid form. The course is nevertheless a very suitable one and the examples are well chosen.

One or two criticisms of detail may perhaps be useful to the author if a second edition is called for. The "don't" of p. 10 is transgressed by the author himself on pp. 34, 75, etc. Students should be taught to distinguish between ordinary and partial differentiation as regards symbolism: it saves a good deal of trouble. The example chosen on p. 80 to show the "impossibility" of separating x and y is rather unfortunate. S. B.

Supplementary Notes on Gravimetric Analysis for Beginners. By W. Lowson. Pp. vi + 58. (London: Longmans, Green and Co., 1923.) 2*s.* 6*d.*

THESE notes are intended to be used in conjunction with regular text-books. There are many valuable hints on practical details, and items of theory which are not easily found by students. The book will be found useful by those beginning quantitative analysis (the calibration of volumetric apparatus is included), and its moderate price will commend itself to students.