for Huygens (I, 232), and Withe for White (ibid.). Exception may also be taken to the positive assertion that the birthplace of Thomas White was Hutton, which seems to be only a probability. There are also numerous misprints such as scguento for seguento (I, 294). Matters of this kind, occurring only casually, are too trivial to mention in detail in a review. The most serious defect in the work is the absence of an index, the tables of contents not being sufficiently complete to enable a reader to find easily the particular subject which he wishes to investigate, particularly in connection with the notes.

Aside from the introduction, the work of the editors consists chiefly in the arrangement of the material, with a few important notes such as the one by Professor Loria at the end of the chapter "De tactionibus" (Volume I, page 291). On the whole, the edition is a very satisfactory one, and it is another testimonial to the remarkable scientific and productive powers of Professor Loria.

DAVID EUGENE SMITH.

An Introduction to String Figures. By W. W. ROUSE BALL. Cambridge, W. Heffer and Sons, 1920. 38 pp.

IN the spring of 1920 Mr. Ball gave a lecture at the Royal Institution, London, on simple string figures and their history, and this lecture has now appeared in pamphlet form, designed to set forth, as the title page asserts, "an amusement for everybody." Much of the information given in the essay is already familiar to those who are acquainted (and what student of mathematics is not?) with Mr. Ball's Mathematical Recreations (fifth edition, chapter XVI, page 348), but there is a certain amount of added material in the present publication. On the other hand some of the figures mentioned in the Recreations are not given here. For those who do not have the larger work at hand, this pamphlet will be found of interest.

DAVID EUGENE SMITH.

Solutions of the Examples in a Treatise on Differential Equations. By A. R. FORSYTH. London, Macmillan and Company, 1918. 249 pages.

THIS volume should serve as a time-saver to those who are giving the usual course in differential equations. Since the solution of a differential equation so often depends upon selecting the proper ingenious device, even the experienced

mathematician may find the working out of a particular example to require in some cases a considerable amount of labor. Unless one has already completed a card catalogue or a note book containing his own solutions of such a wide range of examples as is to be found in Forsyth's Treatise, a work like the present will prove of great value.

The examples worked out in the German edition of the Treatise included only those contained in the first and second English editions. As is well known, the later editions contained a great many additional examples. The present volume includes the solution of these. All the examples have been worked out by Professor Forsyth himself, and, with possibly three exceptions, all were found to be solvable in the usual sense of the term.

CHARLES N. MOORE.

Space, Time and Gravitation; an Outline of the General Relativity Theory. By A. S. EDDINGTON. Cambridge, University Press, 1920. vii + 218 pp.

EDDINGTON has a pleasant style even when engaged in technical exposition. His Stellar Movements makes very interesting reading for any mathematician who likes to see what mathematics has recently done toward unraveling the structure of the sidereal universe. This style is a necessity when one tries to write a semi-popular account of Einstein's new theory. On the whole Eddington has succeeded in making the matter clear without appeal to too much mathematics. Of course the person who has absolutely no mathematical outlook beyond the high-school course will have difficulty in appreciating even the Prologue; but let us say a college graduate who has had his calculus, taught in no too formal fashion,—he will find the book possible. The physicist, the not too ignorant philosopher will welcome the chance to study the theory in its elemental simplicity. Einstein's own treatment and that of his followers is about as instructive to the beginner as lectures on generalized (Lagrangian) coordinates would be in collegiate physics as a first treatment of mechanics or Lamé's work as an introduction to the notion of potential.

Eddington begins with a Prologue on What is Geometry written in the form of a Platonic dialogue between an experimental physicist, a pure mathematician, and a relativist.