

other language. We have also to be thankful that the authors have not yielded to the temptation to expand the volumes out of all proportion; it would have been so easy to have become encyclopedic, to have gone into the engineering applications, to have developed various parts of physics not really germane to the central thought, and even to have descended from the high path of the mathematical theory to the slough of multiplying hypotheses and inadequately justified approximations.

Some fifteen years ago I taught parts of Love's *Elasticity* to a group of graduate students at the Massachusetts Institute of Technology who had had courses on strength of materials, on structures, on applied mechanics, and on advanced calculus. The book was not easy to read with them although they had a good knowledge of the physical phenomena with which it deals; for highly trained mathematical students it might be easier in some respects, but I fear that with the lack of physical and practical insight often found in such students it would be for them not much but mathematics. One does not come instinctively by the feeling for the facts of elasticity as he does for those of particle or rigid mechanics. It would be a real service if the author could collaborate with some leading theoretical engineer to produce a text which should be thoroughly sound, and while serving for ordinary instruction, might lead naturally up to this great classic.

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*Quadratic and Linear Tables.* Lt.-Col. Allan J. C. Cunningham. London, Francis Hodgson, 1927. xii+170 pp.

The first 55 pages of this volume is an extension to the limit 125,683 of the table of quadratic partitions issued in 1904 by the same author. The use of this table has been explained in the previous volume which has been reviewed in this Bulletin.

A small table follows giving the representation of certain numbers by the form  $x^2+462y^2$ , and furnishing a partial list of primes between 10,000,873 and 10,099,681. Since 462 is an "idoneal" number these primes are called by the misleading title "idoneal primes." Since we already have tables giving the complete list of primes in this range the value of this and the little table following it by T. B. Sprague is somewhat doubtful.

For the worker in the theory of numbers many of the remaining tables in the book will be welcomed. Thus we have a table giving the last four possible digits of square numbers which will help identify large squares: tables of solutions of quadratic congruences; quadratic residues and non-residues; tables which give the linear forms for  $a$  in the congruence  $a^2 - b^2 \equiv N \pmod{p}$  which are valuable in the application of Fermat's method of factorization by the difference of squares. The table for the congruence  $a^2 + b^2 \equiv N \pmod{p}$  could easily have been derived from this one. These tables have been published recently also by M. Kraitchik. A further table giving solutions of the equation  $ax - by = 1$  occupies some 22 pages.

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