Some small natural additions in connection with applications would have increased the utility of the book considerably for the reader interested in physics. Thus for instance the method of images requires more complete treatment. Practically all the theory is available in the book for consideration of charge distribution on conductors and perhaps even polarization. Considering the details introduced in the treatment of conformal mapping, the Schwarz-Christoffel formula might well have been introduced in view of the applications in hydrodynamics and in the determination of the field in modern physical apparatus such as the cyclotron.

The problems are, in the main, formal exercises. At least a few interesting ones should have been included, say comparable to the reviewer's favorite: the proof of Maxwell's assertion that the inverse nth power law of attraction is singled out by the requirement that "similar bodies be similarly charged."

The index could stand amplification. Thus, for example, so important a term as "region" does not occur in the index and indeed is defined just once in the book in a footnote. On the whole, however, the book is meritorious and can be recommended to a student.

<div style="text-align: right">D. G. BOURGIN</div>

Elementary matrices and some applications to dynamics and differential equations. By R. A. Frazer, W. J. Duncan, and A. R. Collar. Cambridge University Press, 1946. 14+416 pp. $4.00.

This is a reprint of the book which was first published in 1938 and reviewed in Bull. Amer. Math. Soc. vol. 45 (1939) p. 825. During the past eight years the use of matrices in problems of applied mathematics has become more widespread and part of the credit for this is due the book under review. The theory is well presented but it is regrettable that the authors have felt it necessary, in order to maintain the elementary level mentioned in the title, to refrain from a discussion of the canonical form of a matrix under change of basis and from the proof of the theorem that the number of linearly independent solutions of a system of linear differential equations with constant coefficients is the degree of the determinant of the system. The applications to dynamics (particularly those dealing with flutter problems in aerodynamics) are well chosen and realistic and the book may be recommended to anyone who wishes to know how matrices may be used to advantage in applied mathematics. The printing maintains the high standard set long ago by the Cambridge University Press.

<div style="text-align: right">F. D. MURNAGHAN</div>