The reviewer feels impelled to call attention to the questionable ethical conduct of the publishers. Despite the fact that all papers reproduced in this volume are in the public domain, the book bears the notice of copyright by the Mapleton House. It is certain that no authors' or translators' permission was obtained by the publisher to reproduce this material. Considering the inexpensive photo-offset mode of reproduction of existing material, the price of the book is exorbitant.

I. S. SOKOLNIKOFF

Mathematical biophysics. By Nicolas Rashevsky. Rev. ed. University of Chicago Press, 1948. 23+669 pp. $7.50.

The wide attention and considerable acclaim given to the first publication of Rashevsky's *Mathematical biophysics* in 1938 was due in large part to the rich promise contained in that book. Those mathematicians who loved to see mathematics in the role of fathoming nature's secrets viewed mathematical biophysics as a new area of conquest. Those biologists who were "monists" or "reductionists" at heart hailed it as the much needed link between their own methods and those of mathematical physics.

The revised edition gives ample evidence that the promise is being fulfilled. Almost twice as large as the original publication, the revised edition includes in its pages ten years' progress in mathematical biology.

The progress is largely due to the work of Rashevsky himself and that of his principal collaborators, who are or have been members of the Committee on Mathematical Biology at The University of Chicago. The work covers a wide range of topics, but essentially it can be viewed as pursuing two main directions: (1) The extension of the theory and methodology; (2) The applications of the theory.

With regard to the first direction, an important extension of the previous approach is the approximation method used in computing the forces of metabolic origin acting on a cell of "arbitrary" shape. The method was sketched in the appendix to the first edition and is more fully developed in the new book. The previous line of attack was through the diffusion equation, a partial differential equation which could be solved explicitly only in very special cases involving highly symmetrical boundary conditions. By means of a bold approximation method, Rashevsky was able to reduce the partial differential equations to ordinary ones and to express the forces in terms of parameters amenable to "rough and ready" measurement: the "long" diameter and the "short" diameter of an "oblong" cell.