

DOVER BOOKS ON ENGINEERING AND ENGINEERING PHYSICS

- The Electromagnetic Field, Max Mason and Warren Weaver. \$2.00
Higher Mathematics for Students of Chemistry and Physics, Joseph W. Mellor. \$2.50
Supersonic Aerodynamics, E. R. C. Miles. \$1.45
Fares Please! A Popular History of Trolleys, Horse-cars, Street-Cars, Buses, Elevateds and Subways, John A. Miller, \$1.50
Engineering Mathematics, Kenneth S. Miller. \$2.00
Theory of Flight, Richard von Mises. \$2.95
The Scientific Basis of Illuminating Engineering, Parry H. Moon. \$3.25
Microwave Transmission Design Data, Theodore Moreno. \$1.65
Principles of Mechanics Simply Explained, Morton Mott-Smith. \$1.00
Heat and Its Workings, Morton Mott-Smith. \$1.00
Concepts of Energy Simply Explained, Morton Mott-Smith. \$1.25
Methods in Exterior Ballistics, Forest R. Moulton. \$1.75
Introduction to Applied Mathematics, Francis D. Murnaghan. \$2.00
Mathematical Engineering Analysis, Rufus Oldenburger. \$2.00
Waterhammer Analysis, John Parmakian. \$1.65
Spinning Tops and Gyroscopic Motion, John Perry. \$1.00
Fundamentals of Hydro- and Aerodynamics, Ludwig Prandtl and O. G. Tietjens. \$1.85
Applied Hydro- and Aerodynamics, Ludwig Prandtl and O. G. Tietjens. \$2.00
Applied Elasticity, John Prescott. \$3.25
The Theory of Sound, Lord Rayleigh. Two volume set \$4.70
The Kinematics of Machinery, Franz Reuleaux. \$3.00
Hydraulic Transients, George R. Rich. \$2.50
Theory of Functions as Applied to Engineering Problems, R. Rothe, F. Ollendorff, and K. Pohlhausen. \$1.35
Fluid Mechanics for Hydraulic Engineers, Hunter Rouse. \$2.25
The History of Hydraulics, Hunter Rouse and Simon Ince. \$2.00
Theory of Machines Through Worked Examples, G. H. Ryder. Cloth-bound \$5.00
Structural Airplane Analysis and Design, Ernest E. Sechler and Lewis G. Dunn. \$2.25
Weight-Strength Analysis of Aircraft Structures, F. R. Shanley. \$2.50
Introduction to Relaxation Methods, Frederick S. Shaw. \$2.45
Problems and Worked Solutions in Vector Analysis, L. R. Shorter. \$2.00

(continued on back flap)

(continued from front flap)

- Elementary Metallurgy and Metallography*, Arthur M. Shrager. \$2.25
- Selected Papers on Human Factors in the Design and Use of Control Systems*, edited by H. Wallace Sinaiko. \$2.75
- Microwave Transmission*, John C. Slater. \$1.50
- Applied Mathematics for Radio and Communications Engineers*, Carl Smith. \$1.75
- Fluid Mechanics Through Worked Examples*, D. R. L. Smith and J. Houghton. Clothbound \$6.00
- Mathematical Methods for Scientists and Engineers*, L. P. Smith. \$2.00
- Teach Yourself the Slide Rule*, Burns Snodgrass. Clothbound \$2.00
- An Introduction to the Statistical Dynamics of Control Systems*, V. V. Solodovnikov. \$2.25
- Bridges and Their Builders*, David B. Steinman and Sara R. Watson. \$2.00
- Rayleigh's Principle and Its Applications to Engineering*, George Temple and William G. Bickley. \$1.50
- A History of the Theory of Elasticity and of the Strength of Materials*, Isaac Todhunter and Karl Pearson. Clothbound. Three volume set \$17.50
- Basic Theory and Application of Transistors*, U. S. Department of the Army. \$1.25
- Basic Electricity*, U. S. Navy Bureau of Personnel. \$3.00
- Basic Electronics*, U. S. Navy Bureau of Personnel. \$2.75
- The Schwarz-Christoffel Transformation and Its Applications: A Simple Exposition*, Miles Walker. \$1.25
- Photometry*, John W. T. Walsh. \$3.00
- The Design and Use of Instruments and Accurate Mechanisms: Underlying Processes*, Thomas North Whitehead. \$2.00
- Teach Yourself Electricity*, C. W. Wilman. Clothbound \$2.00

Paperbound unless otherwise indicated. Prices subject to change without notice. Available at your book dealer or write for free catalogues to Dept. Eng., Dover Publications, Inc., 180 Varick St., N. Y., N. Y. 10014. Please indicate field of interest. Dover publishes over 125 new books and records each year on such fields as mathematics, physics, explaining science, art, languages, philosophy, classical records, and others.

WAVE PROPAGATION IN PERIODIC STRUCTURES

by Léon Brillouin

This is a modern classic on the mathematical physics of wave propagation. It covers a wide range of problems having a common mathematical background, ranging from solid state physics to propagation along electric lines, X-rays, rest rays, certain optical reflections, electrical engineering, and wave mechanics of the spinning electron.

Dealing with a general method and its application, the book covers one dimensional lattices and electric wave filters; complicated one-dimensional lattices and electrical analogues; energy velocity, flow, and characteristic impedance; two dimensional lattices, and zones; three dimensional lattices, and Brillouin zones, with rationalizations of systems of forbidden and permitted energy; Mathieu's equation, Hill's equation, Mathieu's functions, matrices, and propagation of waves along an electric line; and continuous electric lines. The mathematical physics of the transistor and similar semiconductor devices is considered.

Treatment in this book is outstandingly clear, making it most useful for intermediate and advanced students, research workers, teachers, and others concerned with aspects of mathematical physics.

"Basic reading," *Journal, Acoustical Society*. "Remarkable that so much ground has been covered with a comparatively simple technique," *Science Progress*. "Delightfully written. The author does not shrink from repeating a formula which has been derived before, so as to save the reader from turning over pages. He never says 'It is easy to prove,' as many writers do, but he gives the proof clearly and simply. It is a book not only for instruction, but also for enjoyment," Max Born, Nobel Laureate.

Unaltered, unabridged republication. Author's preface. Index. Bibliography. 131 illustrations. xii + 255pp. 5 $\frac{3}{8}$ x 8.

S34 Paperbound \$2.00

A DOVER EDITION DESIGNED FOR YEARS OF USE!

We have made every effort to make this the best book possible. Our paper is opaque, with minimal show-through; it will not discolor or become brittle with age. Pages are sewn in signatures, in the method traditionally used for the best books, and will not drop out, as often happens with paperbacks held together with glue. Books open flat for easy reference. The binding will not crack or split. This is a permanent book.