
Introduction to Electricity and Optics, *Nathaniel H. Frank*. McGraw-Hill Book Co., New York. Second Edition, 1950. xv+440 pp. \$5.00.

The material in this volume covers a wide field for an elementary course although the text is intended for the second year of a two-year introductory course in Elementary Physics. More than two-thirds of the book deals with electric and magnetic effects, making it comparable to many intermediate texts in Electricity and Magnetism. Extensive use is made of the calculus and to a more limited degree, vector notation and algebra. These represent the simplest approach to advanced problems and it is well that the student becomes accustomed to thinking along these lines as early as possible.

The author employs the rationalized mks system of units throughout the main body of the text. This is a desirable change, since engineering texts and many advanced physics texts on electricity now deviate from the traditional electrostatic and electromagnetic systems of units. Appendix I contains a section on the various systems of units offering sufficient source material so that a student can read literature on the subject of traditional units without difficulty. An outstanding feature of the text is Chapter I on "Fields of Force," which should prove very valuable in orienting the student.

The treatment of Physical Optics is adequate and a little above the normal level in Introductory Physics texts. The approach to Geometrical Optics and Optical Instruments compares essentially with that included in any Engineering Physics text. It is regrettable that a subject such as Geometrical Optics should be slighted so universally in text books for the sake of the more spectacular physical optics.

The problems offered in the text are good and numerous enough to permit rotation of assignments from year to year.

E. S. FOSTER, JR.