BOOK REVIEWS

Applied Acoustics. HARRY F. OLSON and FRANK MASSA. *P. Blakiston's Son & Co.*, Philadelphia, Pa., 1934; 228 pp., $4.50. A well balanced combination of theory and practice of acoustics, covering very completely the many devices, instruments, and methods of the modern science. Two chapters are devoted to the fundamental equations and the theory of dynamical systems. The remainder of the book is devoted to the more practical subjects such as the design of equipment and the methods of measuring various acoustical phenomena.

It is surprising that no mention is made of the mechanical phonograph which, although it may be considered a thing of the past in the minds of the authors, was the forerunner of modern loud speakers. Many important contributions to the science of acoustics came *via* the phonograph, and references to these works are missing because of the omission of this subject.

On the whole, the treatment of the subject is excellent. The book is well written and contains such a wealth of material as to be a valuable and useful scource of reference to any worker in the field of acoustics. C. R. HANNA

The Projectionist's Handbook. R. PITCHFORD and F. COOMBS. *The Watkins-Pitchford Technical Publications*, London, 1934; 351 pp., 18s. 6d. The preface states, "This work, primarily intended for projectionists in all parts of the world, will also be of interest to their seniors in the industry and to those of the general public who like a peep behind the scenes." The opening chapters of the book are concerned with elementary and applied electricity and magnetism. Following are chapters devoted to the various phases of the projectionist's work and duties: the care and handling of film; the care and operation of projectors; and the numerous other responsibilities of the projectionist as regards continuity, showmanship, theater and stage lighting, *etc.*, as well as the care of any other equipment such as fans, organs, and the like.

Three chapters give detailed descriptions of the construction, operation, and care of typical picture projectors, particularly the Ross (British) and the Simplex. Likewise, five chapters are devoted to the more popular type of sound reproducing equipment.

Perhaps the most original part of the book is the chapter entitled "The Arc," which is very enlightening on the subject of proper screen illumination. As a "handbook" in its stricter sense, the book may be criticized from the standpoint of the rather illogical sequence and organization of material in some parts and seemingly unnecessary repetition in others. Moreover, the absence of real technical data, tables, or formulas reduces its value to the seasoned operator. However, the layman, the novice, and particularly the apprentice projectionist should find the book unusually valuable as a text and reference work. J. STREIFFERT

Motion Pictures in Education in the United States. C. M. KOON. *The University of Chicago Press*, Chicago, Ill., 1934; 106 pp. This handbook represents a report compiled for the International Congress of Educational and Instruc-

tional Cinematography, held at Rome, April, 1934. The data were collected from representatives of 65 agencies at the request of Mr. George F. Zook, United States Commissioner of Education. The main body of the report is divided into the following subjects:

(*1*) The educational influence of motion pictures.
(*2*) The motion picture in the service of health and social hygiene.
(*3*) The motion picture in governmental service and patriotism.
(*4*) The use of motion pictures in vocational education.
(*5*) The motion picture in international understanding.
(*6*) Motion-picture legislation.
(*7*) The technic of making and displaying motion pictures.
(*8*) The systematic introduction of motion pictures in teaching.
(*9*) The educational problems of a general nature resulting from the introduction of motion pictures in teaching.

The general conclusions drawn are:

(*a*) The theatrical motion picture is becoming a powerful force in national life.
(*b*) Non-theatrical uses of motion pictures are varied.
(*c*) The instructional use of motion pictures is quite limited at the present time because less than 10 per cent of the public schools make systematic use of the motion picture.
(*d*) A strong national film institute is needed in the United States.

An extensive bibliography is included which reports the exhibits that were assembled for presentation of the report. G. E. MATTHEWS

La Technique Cinematographique (4th Ed.). M. LOBEL; revised and extended by M. DUBOIS. *Demod*, Paris, 96 frs. The volume deals very comprehensively with the making and projection of silent and sound films.

Part I is devoted exclusively to materials, apparatus, and equipment. Detailed and valuable information is given on the control and use of electricity, the mechanism of projection, the various types of lenses, *etc.*, the relation between the intensity of the light used and the distance between the screen and the projector and the aperture of the lens.

The thirteen chapters of Part II deal with the various factors involved in the making of a film. The arrangement and lighting of the studio, the use of artificial light as an assistance in outdoor work, and the choice of apparatus are considered in detail. The actual taking of the negatives is examined from the purely photographic point of view, their editing, and the production of the positive films, including methods of printing. Tinting of the film and toning, with practical formulas, conclude this section.

Part III deals with sound films, their production and methods of synchronizing sound and picture. The entire work is very fully illustrated with nearly 400 diagrams and half-tone reproductions, and a very complete table of contents facilitates easy reference.