

## BOOK REVIEWS

**Speech and Hearing.** H. FLETCHER. *D. Van Nostrand Co., Inc.*, New York City, \$5.50. 331 pp. The book is arranged in four parts to deal with the topics: (a) speech, (b) music and noise, (c) hearing, and (d) the perception of speech and music. Among the subjects discussed are the organs and the mechanism of speech and hearing, recording instruments, speech power, audition limits, acuity of hearing, and the various factors affecting the perception of speech and music. The book has much experimental and theoretical information.

**Motion Pictures with Sound.** J. R. CAMERON. *Cameron Publishing Co.*, Manhattan Beach, New York, 1929, \$5.00. 393 pp. There is a brief description of developments in sound picture reproduction from Edison's early attempts in 1886 to the latest methods of reproduction. General information, in popular language, is given on sound transmission, the phonograph, telegraphy and telephony, vacuum tubes, and light-sensitive cells. New methods of lighting studio sets with incandescent lights have been adopted as well as new silent running cameras for sound work. The methods in common use for recording and reproducing sound are: Recording with the light valve, R. C. A. Photophone, Movietone, Bristolphone, Vitaphone, Cinephone, Simotone, and Phonofilm. Construction details of each are given, followed by instructions for operating R. C. A., Movietone, and Vitaphone equipment. The following types of amplifiers are in use: Samson Pam, and Silver-Marshall phonograph, and Rack and Panel ("PA") amplifiers. Characteristics of the Western Electric horns, R. C. A. horns, and electro-dynamic speakers are enumerated. Other chapters give information on the new sound screens, film splicers, film speed indicators, and storage batteries. The Telegraphone is announced as still being at the experimental stage; this, instead of having a disk or sound track on film record, depends on a variably magnetized wire for its sound record.

**Colour and Colour Theories.** C. LADD-FRANKLIN. *Harcourt, Brace and Co.*, New York, 1929. 287 pp. A complete discussion of three color theories, namely: (a) Trichromatic, with no yellow and no white (Helmholtz). (b) Tetrachromatic with white added (Hering). (c) Three stage evolution (Ladd-Franklin). In the first stage, the elements are black and white, in the second stage, yellow and blue are added, and in the third, red and green. The outer zone of the retina is still in the front stage, the intermediate zone in the second, and only the central area of the retina has reached the third. In red-green blind individuals, the central area remains in the second stage, and in the totally blind the whole retina is still in the first stage.

**Yearbook for Photography, Cinematography, and Reproduction Processes, for the Years 1921-7.** (*Jahrbuch für Photographie, Kinematographie und Reproduktionsverfahren für die Jahre 1921-7.*) Vol. 30, Parts I and II. J. M. EDER AND E. KUCHINKA. *W. Knapp*, Halle (Saale), 1928, \$7.50. 480 pp. 960 pp. The previous volume of this excellent review of photographic progress covered the years 1915-20. Part I deals with apparatus for various kinds of photographic

work. A historical review prefaces a description of cameras of all types, film holders, shutters, exposure meters, camera supports and tripods, studios, *etc.* Developments in lens design are comprehensively treated. Apparatus for processing films and papers are discussed, including enlargers, reducers, and projectors. Equipment for applications of photography and processes of color photography are described. Part II deals with cinematography, color sensitizing and desensitizing, and physical and chemical actions of the photographic emulsion. A list of some of the important subjects covered includes spectrum photography, luminescence, sensitometry, the foundation of photographic negative processes, photochemistry, radiations, silver bromide gelatin, emulsion making, dry plates, and film.