

BOOK REVIEW

Motion Picture Sound Engineering: A symposium of papers on Studio Sound Recording and Theater Sound Reproducing Equipment and Practice, *Academy of Motion Picture Arts & Sciences* (Taft Building, Hollywood, Calif.), \$4.00.

This book results from courses in motion picture sound engineering conducted during 1936 and 1937 by the Research Council of the Academy of Motion Picture Arts & Sciences, the lecturers being the qualified representatives of the major sound departments. There are thirty-nine chapters, of which the first ten relate to the practice of sound recording in studios and sound reproducing in theaters, while the succeeding chapters are concerned with transmission circuits and electromagnetic theory.

After an excellent introductory chapter on the basis of motion picture sound, the text proceeds to discuss the nature of sound, the types of film recording in use, the acoustic instruments used for sound pick-up and for monitoring, the mechanical and optical features of film propulsion and scanning, and the circumstances of theater sound reproduction. There are chapters explaining film processing and the artifices of noise-reduction as well as the more recent methods of recording, such as push-pull, squeeze-track, and pre- and post-equalization. In the discussion of these new methods there is much that, while not yet classical, discloses the processes of advance in sound picture engineering.

While the text describes most of the steps currently employed in film recording and processing, there are a few omissions as, for example, in the chapter on film processing there is no reference to the useful delta-db. test in variable-density work or of the intermodulation tests regularly used to determine the optimal processing of variable-width sound-track.

Although the book is devoted to photographic methods, there might well be a place for a short discussion of disk recording and reproduction, which has a definite place for play-back and pre-scoring. The references to loud speakers likewise might well be amplified to include descriptions of the various types of receivers, horns, and baffles in commercial use.

The earlier chapters, *I* to *X*, are descriptive of apparatus and processes of interest to the general reader, telling him what the sound engineer has to do and how he does it. The subsequent chapters are for the electrical engineer, with particular reference to the mathematical problems of the sound engineer. They apply to the design rather than the operation of sound equipment.

The Academy of Motion Picture Arts & Sciences is to be congratulated upon having sponsored the training courses that resulted in the publication of such a useful compilation of information dealing with the relatively new science of sound recording and reproduction.

H. G. KNOX