

SOCIETY ANNOUNCEMENTS

S. M. P. E. REQUESTS NATIONAL STANDARDS FOR MOTION PICTURE INDUSTRY*

National standards for all phases of the technical equipment and operation of the motion picture industry, from the lighting and acoustics of studios to the projectors and screens of picture houses, have been requested by the Society of Motion Picture Engineers. In a letter to the American Standards Association, Alfred N. Goldsmith, president of the Society of Motion Picture Engineers, asks for the development of uniform national standards to avoid the danger of confusion and waste resulting from the establishment of conflicting standards by different groups within the industry. If the request of the Society is approved, a technical committee representing all branches of the industry will be organized under the procedure of the American Standards Association.

A memorandum accompanying the Society's request follows:

Standardization projects, such as this proposed project on motion picture standards, grow logically step by step. Topics that initially seem of importance turn out to be not particularly susceptible to constructive and useful standardization; other topics, which would not be considered as suitable for standardization on preliminary consideration, afterward develop into topics of major importance. In the following it is possible therefore to consider only the general field of motion picture activities (so far as they are of technological character) and to mention some of the topics that might be suitable for standardization. The list must be regarded as entirely tentative.

1. *Definitions.*—The terminology of the motion picture field is confused at present. Such terms as "blimp," "zoom," "pan," "tilt," "projection angle," "wow," or "flutter," and the like, are used without official recognition. This situation requires correction so far as is feasible.

2. *Film.*—Measurement of characteristics of the base of the film, dimensions of the film and of its perforations, study of film shrinkage and permissible maximum shrinkage, photographic sensitometric tests, measurement and specification of "safety film," standard width of film of various types, standard containers for film for storage and for transportation, together with methods of preserving films (for archives, etc.).

3. *Studio.*—The acoustic treatment and illuminating methods for studios doubtless would admit of a considerable degree of standardization, both as to nomenclature, measurement, and specifications. Wide varieties of lamps are used, which are designated, for example, as "spots," "baby spots," "rifle spots," and so on. Light-diffusing media are used which are known by a variety of colloquial terms but are not definitely specified. For example, in what is known as

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"oil diffusion" a wide variety of characteristics can presumably be obtained under the same name. The acoustic characteristics of studios have not as yet been specified in a precise form in many instances, nor has measuring equipment for the purpose been adequately considered. Passing on to studio equipment, we find:

4. *Cameras.*—The amount of significant noise produced in these devices at certain distances and in certain directions (in free space), the tolerances in the dimensions of the various working parts, the tensions and pressures in various parts of the mechanism, the dimensions of the magazines and of the magazine hubs, the take-up tension, and numerous other characteristics of cameras require study for possible standardization. The mode of mounting the lenses, the possibility of standardizing focal lengths and apertures of lenses for motion picture practice, standardization of shutter aperture, definition of tripod arrangements, and nomenclature for devices permitting moving shots (traveling trains, and the like), require consideration. Measurement of the effectiveness of camera-silencing inclosures is required.

5. *Recording Equipment.*—Microphones, amplifiers, acoustic reflectors, recording equipment, and sound track measuring equipment fall under this heading. Numerous characteristics of these devices are measurable, might be specified to advantage, and may ultimately be suitable for standardization.

6. *Re-recorders.*—These are used for the introduction or modification of sound effects, and are rapidly becoming an important part of the studio technic. They are used for re-recording from 35 mm. film to 35 mm. film; and are now being produced as well for re-recording from 35 mm. film to 16 mm. film. The over-all frequency and volume characteristics of these devices, the amount of acoustic distortion that they produce, and certain other factors are of major importance.

7. *Photographic Printing Equipment.*—Classification of types of equipment of this sort (continuous and step printers, optical reduction printers, contact printers). Permissible speed variation. Definition of maximum desirable operating speed. Specification of illumination of the printing surface.

8. *Laboratory Processes.*—The development of film is now carried out in various ways by automatic machinery. The terminology requires study, and certain of the processes require precision measurement and definition. For example, methods of measuring developer concentration or speed, measurements of the effectiveness of processes for "hardening" or otherwise preserving film, and the like.

9. *Exchange Equipment.*—Films, after being returned from the theater, pass to the exchange, where they are inspected. Inspection methods have never been definitely specified or defined. Dimensions and mechanical specifications, as well as strength tests of reels and containers used by exchanges, require consideration, both for nitrate and safety stock.

10. *Theater Equipment.*—Projectors have numerous dimensions requiring standardization. The tension and pressure at various points of the mechanism, magazine dimensions, safety devices, contrivances to protect the projectionists' eyes from undue glare, take-up tension, and the like, may all be considered for standardization. Screens (both of the continuous type and of the perforated "sound-transmitting" type) merit study for standardization of their reflection characteristics and the specification thereof. The resurfacing of screens as they become worn brings up a similar series of problems. The amplifying and loud

speaking equipment give rise to the usual series of electroacoustic standardization problems ending with the frequency characteristic, distortion characteristic, and space distribution of the output of the loud speaker system.

11. *Miscellaneous.*—Such fields as color photography require study. The various processes have never been satisfactorily defined, nor have the various forms of cameras, lenses, processing equipment, and projectors been put on a suitably precise basis. Three-dimensional pictures require definition. Frequency systems that give perspective impressions are classified as three-dimensional or "pseudo-stereoscopic." A considerable amount of confusion exists here on terminology.

SUB-COMMITTEE ON LABORATORY PRACTICES

At a meeting of this sub-committee of the Committee on the Care and Development of Film, held recently in the general office of the Society, various phases of laboratory practice were assigned to the several members of the sub-committee to be studied and reported on. These subjects were as follows: standardization of developing solutions, processing film for requirements of machines, emulsion requirements for prints, requirements for drying negative and positive, sound requirements for prints, standardization of gamma and density of sound track, requirements of prints for theaters, requirements for negative developers, requirements for duplicating negative, standardization of printers and printer lights, handling negative in laboratories, standardization of developing solutions, requirements for film printers, sensitometry in the laboratory.

Another meeting of the sub-committee is scheduled to be held on September 21, at which time the reports on these subjects will be collected and arranged to form the basis of the final 1932 report. Particular attention is being paid to those features of laboratory practice that might be found to be amenable to standardization, particularly as regards the control of development and printing. Recent additions have been made to the membership of the sub-committee in order to make it more representative of the entire field, including sound recording and reproduction, in order to correlate the problems of those who supply exposed film to the laboratories for processing and of those who use it after the laboratory has finished its work.

SUB-COMMITTEE ON EXCHANGE PRACTICES

The work of this sub-committee of the Committee on the Care and Development of Film has progressed to the point of submitting to the membership of the sub-committee a tentative report based on the contributions of the several members. This report deals with (a) the maintenance of film, (b) the storing of film, (c) shipping routines and records, (d) housekeeping and control of fire hazards, (e) equipment, and (f) home office control. At another meeting of the sub-committee, to be held in the near future, this report will be discussed in its entirety, and after making whatever changes may be found necessary, it will be submitted to the Committee on the Care and Development of Film as the final

report of the sub-committee. It is felt that this report will embody in a single essay a considerable amount of information concerning the problems of film exchanges that can not be found elsewhere in the literature of the art. The report will contain not only an exposition of the current routines followed by existing exchanges, but will contain, as well, recommendations of changes of routine based on the collective opinions of representatives of all the important distributing companies.

PROJECTION THEORY COMMITTEE

Although quite complete information on the optical theory of projection is available, it is unfortunately scattered throughout a great many sources, and is difficult of access to those whose principal work is not directed toward optical problems. For this reason, the Projection Theory Committee plans to prepare a monograph on the theory of projection, which monograph will represent a single source from which may be obtained all important information pertinent to the theory of projection. Due to the magnitude of the work, this monograph will not be completed for some time to come; but when completed, it is expected that it will represent an important contribution of the Society to the motion picture art.

MUSEUM COMMITTEE

Work has been begun on the construction of a series of miniature dioramas, enclosed in glass, depicting the progress of the motion picture art from its inception to the present sound sets in operation. These exhibits are about 3 by 4 feet, made to exact scale. When finished, they will represent the making of an early motion picture, the making of an animated picture, and an up-to-date sound set in operation with its sound equipment and lighting apparatus. A miniature set will be lighted by miniature lights that are but slightly greater than two inches in height. The Bausch & Lomb Optical Company and Carl Zeiss, Inc., are co-operating with the Museum Committee in constructing an exhibit depicting the history of lens grinding and the making of precision glass. This exhibit will show the evolution of the photographic objective from the first lens to the present highly corrected anastigmat. Special lenses are being ground for this exhibit by the Bausch & Lomb Optical Company. The Pittsburgh Plate Glass Company is supplying its latest products of the glass-making art, including samples of bullet-proof, safety, and other types of glass used in motion picture studios.

Models of the more popular of the early devices designed to show motion by hand-drawn pictures before photography came into use, are being made by one of the studios in Hollywood. Several manufacturers of equipment are coöperating with the Museum Committee in collecting samples of early sound equipment and various archives and historical records.

SUSTAINING MEMBERS

Agfa Ansco Corp.
Bausch & Lomb Optical Co.
Bell & Howell Co.
Bell Telephone Laboratories, Inc.
Case Research Laboratory
Du Pont Film Manufacturing Co.
Eastman Kodak Co.
Electrical Research Products, Inc.
Mole-Richardson, Inc.
National Carbon Co.
RCA Photophone, Inc.
Technicolor Motion Picture Corp.

HONOR ROLL

OF THE

SOCIETY OF MOTION PICTURE ENGINEERS

By action of the Board of Governors, October 4, 1931, this Honor Roll was established for the purpose of perpetuating the names of distinguished pioneers who are now deceased:

LOUIS AIMÉ AUGUSTIN LE PRINCE
WILLIAM FRIESE-GREENE
THOMAS ALVA EDISON
GEORGE EASTMAN
JEAN ACME LE ROY
