ABSTRACTS OF PAPERS FOR THE DETROIT CONVENTION

The following abstracts were received too late for inclusions in the October Journal and are published here for reference purposes:

"Technicolor Adventures in Cinemaland"; H. T. Kalmus, Technicolor Motion Picture Corp., New York, N. Y.

An historical review, on a somewhat technical basis, of the problems of the application of color processes, and particularly the Technicolor process, to the motion picture industry.

Standards Committee Report; E. K. Carver, *Chairman*

The items under consideration at the present time are as follows:

(*1*) Cores for 35-mm. and 16-mm. motion picture film have been given initial and final approval and will be published in an early issue of the JOURNAL. These cores are practically the same as the cine positive cores. The type of core, such as is ordinarily used for negative, with the key instead of the keyway, is considered non-standard.

(*2*) The question of sound-track dimensions is being held in abeyance awaiting a report of the Academy Committee investigating this subject.

(*3*) A preliminary drawing for 16-mm. sound-film sprockets has been given initial approval and has been sent out for criticisms.

(*4*) A definition of safety film, which limits the per cent of nitrogen in such film to 0.36 per cent and which adopts the so-called Lehman burning test and Lehman ignition temperature test, has been given initial approval.

(*5*) The question of the reduction ratio for 35 mm. to 16 mm. is in the hands of a sub-committee, but no action has yet been taken.

(*6*) The question of a universal perforation with the basic dimensions of the Bell & Howell and with the shape of the positive perforation is still under study. A report by Mr. Arnold is expected at this meeting.

(*7*) In regard to the term "variable-area" or "variable-width," an investigation by the Committee has shown that the term "variable-area" is preferred to the term "variable-width," but that both may be considered good usage.

"The Stability of the Viscose Type of Ozaphane Photographic Film"; A. M. Sookne and C. G. Weber, National Bureau of Standards, Washington, D. C.

Viscose Ozaphane, a new type of film with a base of regenerated cellulose sheeting, and having certain advantages for record use, was tested to determine its comparative stability. Its stability was compared with that of cellulose nitrate, and also with that of cellulose acetate, which is widely used for slide-films and which has been found to be a very stable material for preserving records in libraries. The viscose type of film apparently is not suitable for permanent records, but does appear to have properties to recommend its use for reading-room copies that can be replaced when they become unserviceable. The stability was determined by measuring changes in the chemical and physical properties under accelerated aging. The changes observed were increase in acidity and copper number, and decrease in viscosity, weight, and flexibility.

"The Evaluation of Motion Picture Films by Semimicro Testing"; J. E. Gibson, The National Archives, Washington, D. C., and C. G. Weber, National Bureau of Standards, Washington, D. C.

Test methods for the evaluation of motion picture film for permanent records require test specimens too large to be removed from certain archival films. To assist those charged with the preservation of such films in determining the quality and checking the condition of them, suitable semimicro methods were developed for acidity, viscosity, and residual hypo content. Specimens as small as 7 milligrams in weight, removed from the film with a small hand punch, gave satisfactory results for the purpose.

Report of the Studio Lighting Committee; C. W. Handley, *Chairman*

In a previous report the need of a catalog of studio lighting equipment was emphasized. A number of papers have been published describing in detail the various lamps and light-sources, but there has not been assembled in one paper a symposium of all types of equipment and light-sources. It is the intention of the Committee to correlate the published and unpublished data on motion picture studio light-sources in such form as to make this report a reference for complete information on the subject.

The various lighting units are numbered and briefly described. Photographs of popular lamps are shown. Tables give minimum and maximum beam divergences, carbon and bulb sizes. JOURNAL references are given as a key to further specific information on any lamp or illuminant. Data on light control devices and lamp filters is included.

"Latest Developments in Variable-Area Processing"; A. C. Blaney, RCA Manufacturing Co., Inc., Hollywood, Calif., and G. M. Best, Warner Bros. Pictures, Inc., Hollywood, Calif.

A series of curves is presented showing the photographic control of variable-area sound-tracks as obtained in commercial production at Warner Bros. Studio, and to show the wide tolerances in film processing that are permissible with class *A* push-pull recording, a factor of especial interest in connection with the daily production.

The results of a study of the technic involved in fine-grain photographic duplicating of variable-area sound-track for foreign release is also discussed.

"The Metro-Goldwyn-Mayer Semi-Automatic Follow-Focus Device"; J. Arnold, Metro-Goldwyn-Mayer Studios, Culver City, Calif.

During recent years an important problem in major-studio cinematography has been that of following focus. Due to the shallow depth of field in modern lenses when used at maximum apertures, it is necessary to alter the focus frequently during the filming of a scene. In moving-camera shots, which are being used with increasing frequency, this problem is naturally aggravated, since both camera and players may move. The use of "blimped" cameras for sound pictures also aggravates the cameraman's problems, as finder parallax is greatly increased by placing the finder outside the camera "bungalow."

At the Metro-Goldwyn-Mayer Studio these problems have been simplified by the use of the semi-automatic follow-focus device. This consists of a finder which is both focused and pivoted to correct for parallax as the lens is focused. Individual cams coördinate the finder movement with the characteristics of any given lens.

So successful is this coördination that it is possible to determine whether or not an object is correctly focused in the camera by observing the object's focus and position in the finder. The device has been applied to all cameras used in production at the Metro-Goldwyn-Mayer Studio, and has over a period of several years proved to be accurate, dependable, and has facilitated production to a noteworthy degree.

"A Motion Picture Dubbing and Scoring Stage"; C. L. Lootens and D. J. Bloomberg, Republic Productions, Inc., North Hollywood, Calif., and M. Rettinger, RCA Manufacturing Corp., Hollywood, Calif.

A new dubbing (re-recording) and scoring (music recording) building recently completed on the Republic lot consists of the recording stage, a scoring monitoring room, projection booth, machine room, maintenance room, power room, and recording truck testing platform.

The recording equipment consists essentially of 2 complete RCA high-fidelity recording channels, with associated equipment of film-phonographs, test racks, power rectifiers, dubbing and scoring consoles, acetate recorder, and projection equipment.

The stage is of the live-end, dead-end type and has dimensions conforming to the recommended 1:2:3 ratio. The live end is provided with permanent sidewall and ceiling reflecting panels which increase the reverberation and diffusion. The remainder of the stage is treated with 4-inch rockwool battens, placed between the studs and retained in place by a dual muslin covering. The measured reverberation characteristic of the stage fulfills recommended requirements and is between 0.95 and 1.00 second for the frequency band of 540 to 7000 cps. The stage is also equipped with an 8-position console so that dubbing may be done in a room having theater sound characteristics.