



84th Convention

As CONVENTION preparations move on to the final stage a promise that the 1958 Fall Convention will be a memorable one is based on groups of papers on live, up-to-the-minute subjects, arranged by Program Chairman Heppberger, his associate Harold Kinzle and the Topic Chairmen and Regional Chairmen. The Equipment Exhibit is described in detail below. Also, there are firm plans for unusual and instructive entertainment activities and excellent cooperation among all concerned with arrangements. Topic Chairmen and their duties were listed in the *May Journal*; Local Arrangements Chairmen, in the *July Journal*.

A program of tours to points of interest in and near Detroit has been arranged for the Ladies Events, but men, too, may especially want to go on the tour of the General Motors Technical Research Center where demonstrations will be given in the GM styling studios. Those interested in Victorian bibelots and other Americana will appreciate the trip to Greenfield Village to view the famous Henry Ford collection; and for those whose interests include contemporary art and architecture a tour of the renowned school of art and architecture in Cranbrook has been planned. Visits to nearby points of interest in Canada can be arranged.

The Awards Session, always an event of special significance, will be held Tuesday

Detroit

evening, October 21. Forecasts of the awards appeared in the *August Journal* and are completed in this issue.

It is customary to remind possible procrastinators that, in order to avoid disappointments and to insure a rewarding and delightful time at the Convention, details of registration and hotel reservations should be attended to at once. The postal announcement, mailed early this month to members, has a detachable addressed card to be mailed to the Reservation Dept. of the Sheraton-Cadillac Hotel, Detroit 31. There is also a card to be enclosed with the advance registration fees which should be received at headquarters no later than October 10. A discount of \$2.00 is made when the fee for the banquet and luncheon is sent with the registration fee, making a total of \$22.50 for registration, banquet and luncheon. Registration fee for members is \$5.00. The banquet ticket, without discount, is \$15.00 and the luncheon is \$4.50.

Equipment Exhibit

The roster of exhibitors continues to increase and it is evident that visitors to the convention will have the opportunity of seeing as fine a display of professional motion-picture and television equipment as has ever been gathered together in the

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Detroit area. Several companies will have new developments that will be shown for the first time anywhere. Free passes for admission to the exhibit will be available at the Registration Desk.

Companies who are preparing displays include:

Animation Equipment Corp.
Bell & Howell Co.
Camera Equipment Co.
Canadian Applied Research Ltd.
Andre Debric Mfg. Corp.
Electronic Systems of Illinois Inc.
Florman & Babb Inc.
Harwald, Inc.
Karl Heitz Inc.
HiSpeed Equipment Inc.
Hollywood Film Co.
Kling Photo Corp.
Lipsner-Smith Corp.
Macbeth Instrument Corp.
Motion Picture Printing Equipment Co.
Neumade Products Corp.
Precision Laboratories
Reevesound Co.
Ro-Nan Inc.
S.O.S. Cinema Supply Corp.
Unicorn Engineering Co.
Westrex Corp.
Wollensak Optical Co.

Information about any space remaining can be obtained from the Exhibit Chairman, Ray Balousek, c/o Producers Color Service, 24 Custer, Detroit 2, Mich.

Advance Program

Minor changes, necessitating rescheduling of certain events on the program have, at times, occurred after publication of the Advance Program. Changes, involving addition of certain papers, changes in those already scheduled or in the time allotted to certain events, committee meetings, etc., may be made before or during the Convention. The program published here is complete to the date of publication and, unless some unforeseen and unavoidable event occurs, the Convention will proceed according to this schedule.

Detailed information is available from SMPTE headquarters in New York (L'Ongacre 5-0172). During the week preceding the Convention it is advisable to make inquiries by telephone, especially those relating to scheduling of individual papers, committee meetings and other matters of immediate importance. Information relating to the scheduling of papers may also be obtained directly from the Program Chairman, C. E. Heppberger, by telephoning him at Chicago, Financial 6-3300.

SUNDAY—OCTOBER 19

2:00 Registration opens in the Sheraton-Cadillac, Detroit

MONDAY—OCTOBER 20

8:30 Registration

9:00 LABORATORY PRACTICE

Photographic Processing Equipment
JOHN R. TURNER, *Color Technology Div., Eastman Kodak Co., Rochester, N.Y.*

Conventional methods of photographic processing and the functional elements of processing machines such as drives, recirculation systems and agitation devices are reviewed in detail, particularly as related to motion-picture film. Note is taken of techniques, evolved in related fields, that represent a wide departure from these practices both in simplicity and in speed. Also discussed are some photographic processing methods which as yet have had only limited commercial application but which offer comparable possibilities of increased speed and simplicity.

The Bell & Howell Additive Color Printer
HANS-CHRISTOPH WOHLRAB, *Bell & Howell Co., Chicago*

Additive color printing is easy because the light can be controlled by mechanical devices and the program for printing may be predetermined and stored in a perforated tape. The perforator provides signals for starting and stopping the printer, light values for red, green and blue, and provides for fades in three different speeds. The reader feeds this information into the printer. The printer operation is described.

An Improved 16mm Tear Detector for Film Processing Machines
FRANK E. WHITE and JOHN FEDERICO, *Processing Lab., Eastman Kodak Co., Chicago*

The detector is composed of three parts: the run-through roller, the tear detector, and the film brake. When the end of the film passes through the run-through roller, a pressure roller actuates a microswitch energizing the film brake. When a torn perforation or misaligned splice passes under the tear detector, the fork actuates a microswitch, thus energizing the film brake. The film brake consists of roller and pressure roller, behind which is a pawl and ratchet. The pawl is actuated by a solenoid, which in turn is energized by either of the two microswitches as mentioned above.

An Automatic Shutter Control for D & J Printer HANS-CHRISTOPH WOHLRAB, *Bell & Howell Co., Chicago*

At the present increased printing speeds, hand setting of light changes is difficult and unreliable. The automatic shutter control kit which is described can easily be mounted on any D&J printer, and utilizes tape code and perforator presently available for the additive color printer. The control operates on 22 light steps incorporating fade release and automatic printer start and stop, including a dynamic braking device to avoid coasting of the printer. Good accessibility of all components facilitates servicing.

The Effect of Developing Time Upon Distortion in Variable-Area Recording GEORGE LEWIN, *Army Pictorial Center, Long Island City, N.Y.*

Variable-area sound recording on film was originally thought to be immune from processing variations. While the effect of exposure and density upon cross-modulation distortion has long since been recognized and is well documented over the years, the significance of developing time is generally overlooked. It is shown that the common practice of adjusting developing time to compensate for exposure errors is not satisfactory. Large errors can never be fully compensated, and small errors are shown to require overcompensation if the optimum print density is to remain unchanged. The need for further study of the effect of changes in the developer itself upon cross-modulation is indicated.

Laboratory Problems and Procedures in Processing Color Negative in the Cinemiracle Process and Preparation of Theater Prints Therefrom

PAUL A. KAUFMAN, *Tri-Art Color Corp., New York*; and COLEMAN T. CONROY, JR., *National Theatres, Inc., Los Angeles*

Louis de Rochemont's first Cinemiracle Adventure film *Windjammer*, produced for National Theatres, Inc., was photographed on 35mm Eastman Color Negative, Type 5248. Laboratory procedures in processing the negative, timing, color balancing, printing and vignetting Cinemiracle release prints are discussed.

A Technique for Reducing Contrast for Special Purposes in Printing From Negatives of Normal or Excessive Contrast

PAUL A. KAUFMAN, FERDINAND INDIA and ROBERT M. SMITH, *Du-Art Film Laboratories, Inc., New York*

Owing to special requirements of the TV industry problems of severe contrast reduction have been imposed upon film processing laboratories printing from negatives which were photographed and processed for theater presentation. A technique has been developed whereby contrast reduction is effected with release positive stock under normal developing conditions. Other applications of this technique are also discussed.

12:15 Get-Together Luncheon

MONDAY AFTERNOON

2:30 SYMPOSIUM on 16mm Color Intermediate Negative/Positive Release Printing

A Symposium on the 16mm Internegative/Positive Process

ROBERT A. COLBURN, *Chairman, Geo. W. Colburn Laboratory, Inc., Chicago*

Three 16mm motion-picture laboratories in the Midwest using the 16mm internegative/positive system of producing release prints describe the various methods used in their respective laboratories to obtain satisfactory prints. Each laboratory also describes special printing equipment that was designed and built by it for its exclusive use to meet the requirements of this system.

Awards at the Convention

Presentation of Awards will take place Tuesday evening, October 21. The Awards ceremony represents one of the gravest responsibilities of the Society, that of designating the men whose achievements are of present importance and hold promise for the future. Following are the names of recipients, the Awards to be bestowed, and the names of the Chairmen of the Award Committees: to George Lewin, the Samuel L. Warner Memorial Award, Gordon E. Sawyer, Chairman; to Albert Rose, the David Sarnoff Award, William B. Lodge, Chairman; to Merle L. Dundon, the Herbert T. Kalmus Award, Herman H. Duerr, Chairman; to George Lewin, the Journal Award, S. P. Solow, Chairman. This award is for the paper on "The Infrared Transparency of Magnetic Tracks." Honorable Mention for papers published in the *Journal* will be awarded to Willy Borberg for "Effect of Gate and Shutter Characteristics on Screen Image Quality," Armin J. Hill for "Analysis of Background Process Screens," Donald Kirk, Jr., for "Economic Considerations in Closed-Circuit Television System Design" and R. G. Neuhauser for "Black Level — The Lost Ingredient in Television-Picture Fidelity."

The rank of Honorary Member will be bestowed upon Herbert T. Kalmus. Deane R. White is Chairman of the Committee on Honorary Membership.

Preparation of Originals for 16mm Internegative/Positive Printing

ROBERT A. COLBURN, *Geo. W. Colburn Laboratory, Inc., Chicago*

The Geo. W. Colburn Laboratory sets up originals in A & B rolls to incorporate fades, lap dissolves and invisible splices; timing is both for color balance and exposure balance; originals are cued for automatic printer operation; and originals are treated to minimize Newton ring formation.

16mm Color Intermediate Negative-Positive Printing Procedures and Controls

JOHN R. STILLINGS, *Lakeside Laboratory, Gary, Ind.*

Printing procedures and control techniques using an additive printer in the production of 16mm color positive prints from 16mm reversal color film are described. Matrix algebra is used in determining a basic exposure for each emulsion type and number used. These matrices can be used for initial printer calibration as well as for routine printer control.

16mm Internegative and Positive Processing Controls

WILLIAM D. HEDDEN, *The Calvin Company, Kansas City, Mo.*

Processing control of 16mm color internegative and color positive is necessary to produce a high-quality product. This paper deals with methods of photographic and chemical processing production controls and their coordination with motion-picture printing controls.

Two New 16mm Printers Designed Especially for the Internegative and Color Positive Process

GEO. W. COLBURN, *Geo. W. Colburn Laboratory, Inc., Chicago*

The internegative printer is a contact step printer for daylight operation. A mechanical dissolve shutter will operate at two speeds. Light changes are accomplished by use of glass neutral density filters. Color filters are introduced automatically to make individual scene color-balance changes.

Tentative Schedule of Committee Meetings

Monday, October 20

- 2:00 P.M. Film Dimensions
- 5:30 P.M. Association of Cinema Laboratories (including dinner)

Tuesday, October 21

- 10:00 A.M. Screen Brightness
- 10:00 A.M. Papers
- 11:15 A.M. Board of Editors
- 12:30 P.M. Editorial Luncheon
- 2:00 P.M. Film Projection Practice
- 2:00 P.M. Publications Advisory
- 3:00 P.M. Section and Student Chapter Officers

Wednesday, October 22

- 10:00 A.M. Public Relations Advisory
- 2:00 P.M. Education

Thursday, October 23

- 10:00 A.M. Sound
- 2:00 P.M. 16 & 8mm

Friday, October 24

- 10:00 A.M. High-Speed Photography
- 2:00 P.M. Television

Final schedule will be listed in the Convention Program and meeting notices will be mailed to Committee members.

The color positive printer operates at 300 ft/min and handles both color internegative and negative sound rolls in one pass.

Equipment for Printing 16mm Color Internegative and Color Positive Film

R. PAUL IRELAND, *EDL Company, Gary, Ind.* Equipment for printing 16mm color internegative film differs from other 16mm printing equipment in only one essential way: considerably more exposure must be provided for color negative than for other films. There are several other differences which are desirable although not necessary.

The Colormatic Printer

LLOYD THOMPSON and KENNETH B. CURTIS, *The Calvin Co., Kansas City, Mo.*

The making of 16mm color prints from color original reversal by the internegative system is more difficult and exacting than making reversal prints. Black-and-white equipment demands extensive modification or new color equipment must be built. This paper outlines some of the problems and the details of a new high-speed production printer for making positive prints from the internegative.

MONDAY EVENING

7:30 DOCUMENTARY AND EDUCATIONAL FILM PRODUCTION

Milking the Oddball Camera

WILLIAM R. WITHERELL, JR., *Video Films, Detroit*

Without demeaning the importance of standard motion-picture equipment, it can be claimed that such gear, by virtue of its inflexibility, can be a limiting factor in approaching a production. The value of substandard, "oddball" equipment is stressed, with film examples. There is good reason to put emphasis on the creative freedom