

HIGHLIGHTS OF THE FALL CONVENTION

HOTEL PENNSYLVANIA, NEW YORK, N. Y.
OCTOBER 11-14, 1937

Despite the fact that the summer, a season of more or less restricted activity due to vacations and other causes, intervened, the technical quality of the papers at this Convention was of a high standard, and, judging from the extensive discussions following many of the presentations, the choice of papers was of considerable interest to those attending the convention. Of particular note is the fact that this Convention included presentations and demonstrations of the three most promising and more or less immediate future developments of outstanding importance to the industry—namely, stereophony, stereoscopy, and television. The subject of color motion pictures was not included in the program, beyond the presentation of a few outstanding examples of 16-mm. Kodachrome, incidental to the demonstration of a new scheme for enhancing the beauty of the projected screen image by means of a specially constructed reflecting surface about the periphery of the screen.

TECHNICAL SESSIONS

The Convention opened at 10 A.M. on Monday, October 11th, with a few remarks by President Wolf, several committee reports, a demonstration and paper from Cornell University on the recording of bird calls, an interesting paper dealing with foreign film markets by N. D. Golden, and a discussion of technologic applications of motion pictures in designing telephone apparatus.

At noon of the same day the usual informal get-together luncheon was held, attended by approximately 150 members and guests. After a few words of welcome by the President, the results of the fall elections were announced as follows:

Executive Vice-President: K. F. MORGAN
Engineering Vice-President: L. A. JONES
Financial Vice-President: E. A. WILLIFORD
Secretary: J. FRANK, JR.
Treasurer: L. W. DAVEE
Governors: R. E. FARNHAM
H. GRIFFIN
A. C. HARDY

Interesting addresses were made by Mr. Martin Quigley on the subject of "Propaganda, Education, and the Entertainment Film," and by Mr. Louis Nizer, Secretary of the New York Film Board of Trade.

The highlight of the Monday afternoon program was the demonstration of stereoscopic motion pictures by G. W. Wheelwright, based upon the use of polaroid, a polarizing material described previously in the JOURNAL. The stereoscopic effect was demonstrated with 16-mm. Kodachrome pictures.

During the afternoon the Active and Fellow members were requested to vote upon the recommendation of the Board of Governors that the distinguished British pioneer and scientist, Robert William Paul, be elected to Honorary Membership. Mr. Paul had been previously unanimously recommended for this honor by the Historical and Honorary Membership Committees. A citation was read by Mr. G. E. Matthews of the Historical Committee and Mr. Paul was unanimously elected.

The Monday evening session of the Convention was held in the auditorium of the Bell Telephone Laboratories and was devoted to developments in both disk and film recording and reproduction. Papers were read on the subjects of disk recording (by M. J. Di Toro, and L. Vieth and C. F. Wiebusch), 96-cycle frequency modulation of sound-film records (by J. Crabtree and W. Herriott), and a description and proposed nomenclature for various types of sound-track of movietone releases (by J. K. Hilliard). A demonstration of stereophonic recording and reproduction was given by the Electrical Research Products, Inc., patterned after the arrangement demonstrated by H. Fletcher several years ago. A special motion picture has been made and recorded with twin sound-tracks, which were reproduced through separate channels by speakers located at each side of the screen. The directional effect was perhaps not as apparent as might have been desired but was decidedly noticeable in orchestral numbers. Further work will be necessary to determine the best locations of the microphones and speakers. Mr. Maxfield, who supervised the demonstration, made the interesting statement that he preferred the sound quality from a twin system flat to 5000 cps. to that from a single-system flat to 15,000 cps. So far as is known, this was the first public demonstration of stereophonic sound in conjunction with motion pictures.

The morning of Tuesday, October 12th, was devoted to engineering practice, and included an assortment of papers on the subjects of air-conditioning and the use of various materials such as stainless steel, Inconel, and die castings in motion picture equipment. In addition, a paper discussing the design and operation of vacuum tubes for use in motion picture processes was presented by L. C. Hollands and A. M. Glover.

Light and illumination was the keynote of the Tuesday afternoon session. F. T. Bowditch and A. C. Downes discussed the characteristics of carbon arcs, and a paper by S. Dushman, Assistant Director of Research of the General Electric Co., dealt with recent developments in gaseous discharge lamps. G. G. Popovici described some developments in background projection, and the subject of light control in photography by G. Mili concluded the afternoon.

Perhaps the outstanding presentation of the afternoon was the paper by B. Schlanger entitled "A Method of Enlarging the Visual Field of the Motion Picture Screen." By utilizing a screen with semi-transparent boarders, the transmitted light was reflected and scattered by rear reflecting surfaces so as to produce in effect a vignette around the screen. As the brilliancy of the screen image would change, or, in the case of Kodachrome, as the color would change, so would the brightness or hue of the screen extension change. The sharp unnatural black screen edge is avoided, and the effect that was produced could probably be aptly described as "luminous vignetting."

The entire morning of Wednesday, October 13th, was devoted to practical

projection, including the Report of the Projection Practice Committee. The latter dealt principally with the change of projector aperture dimensions recently proposed by the Academy of Motion Picture Arts and Sciences. A symposium of several papers, arranged with the coöperation of Mr. F. H. Richardson, dealt with various problems encountered in projection, and the morning closed with an open forum on related subjects.

The afternoon of Wednesday, October 13th, was left open, although arrangements were made for those members who so wished to inspect the projection facilities of the Radio City Music Hall, through the courtesy of Mr. Harry Braun.

On Wednesday evening was held the Semi-Annual Banquet and Dance of the Society. Opening the proceedings of the Banquet were a few words of welcome by the President, who then introduced the officers-elect and several distinguished guests.

Mr. A. Demaria, representing the French Association of Cinematographers, proposed a toast to the success of our Society, and Mr. Francis Doublier referred briefly to some of his work with Lumière in the early days of the motion picture in France from 1894 to 1901. Mr. H. G. Govil, representative of the Motion Picture Society of India, spoke briefly of some of the motion picture problems in India. Following these addresses, Mr. C. C. Pettijohn, General Counsel of the Motion Picture Producers and Distributors of America, Inc., the principal speaker of the evening, discussed at considerable length the relations between the engineers of the industry and the fruits that they derive from their labors and activities.

A citation of the work of Dr. Dean Brewster Judd, who was selected as the recipient of the 1936 Journal Award, was next read by Mr. E. A. Williford, Chairman of the Journal Award Committee. The Award was made to Dr. Judd in recognition of his paper on "Anomalies of Vision and Color Blindness."

Honorable mention was made by Mr. Williford of two additional papers selected from the 1936 publications in the JOURNAL, *viz.*, "Improved Resolution in Sound Recording and Printing by Use of Ultraviolet Light," by G. L. Dimmick, and "Continuous Photographic Processing" by H. G. Hine.

The recipient of the Progress Medal for 1937 was Edward Washburn Kellogg, of RCA Manufacturing Company, a citation of whose work was read by Mr. E. W. Engstrom. The granting of the Award by President Wolf was followed by an address of acknowledgment and appreciation by Mr. Kellogg.

The evening was concluded with entertainment and dancing.

The morning session of Thursday, October 14th, was devoted to motion picture apparatus. Papers were presented describing sound-level meters, motion picture camera cranes, and miscellaneous equipment for motion picture projection. The afternoon of Thursday was devoted to sound and photography, as listed in the final program. Kellogg's discussion of loop-length variation in non-slip printers and Maxfield's account of sound pick-up for stereophonic recording aroused considerable interest at the session.

An outstanding climax to the Convention was the television demonstration arranged by the Radio Corporation of America through the courtesy of Mr. Ralph Beal, Director of Research of RCA. The demonstration was held on the 62nd floor of the RCA Building, New York. Twenty television receivers, each viewed by a group of ten or fifteen persons, picked up signals transmitted from

the Empire State Building. The program originated in an NBC Studio on the third floor of the RCA Building, whence it was transmitted *via* coaxial cable to the transmitter in the Empire State Building and thence radiated back to the RCA Building. The program consisted of comedy and vaudeville sketches by live artists and the transmission of a motion picture film newsreel.

The proceedings of the evening were opened with a brief address by Mr. David Sarnoff, President of the Radio Corporation of America, who was introduced by Mr. J. I. Crabtree, Editorial Vice-President of the Society.

Two performances were given, in order to accommodate the 400 or more persons who attended. At the end of each performance an informal interview between one of the studio performers and a member of the Society was televised and transmitted. Mr. L. W. Davee, Treasurer of the Society, participated in the first interview, and Mr. E. A. Williford, Financial Vice-President elect, in the second. The picture size was approximately 7 by 9 inches and the image was of astonishingly good quality and neutral in color. The definition was such that in the case of the newsreel football game the path of the ball was easily followed. In an adjoining room a film 3 by 4 feet was projected upon a screen from a new high-intensity Iconoscope, this being the first public demonstration of this new development.

At the conclusion of the demonstration Mr. Crabtree expressed appreciation of the Society to the research workers at Camden, and to Mr. Sarnoff and the members of the staff of RCA for the great privilege extended to the Society. He also reminded the members that they had seen motion pictures printed and projected by electrooptical means without the medium of film, and that it was apparent that from now on the Society must pay increasing attention to the important subject of television.

The Convention adjourned at 11 P.M., Thursday, October 14th.

ACKNOWLEDGMENTS

Conventions of the Society are made possible only through the coöperation and collaboration of a large number of Officers, members, friends, and companies. The general facilities of the Convention were arranged by Mr. W. C. Kunzmann, *Convention Vice-President*; Mr. H. Griffin and Mr. J. Frank, Jr., in charge of projection facilities; Mr. G. Friedl, Jr., *Chairman*, Local Arrangements Committee; Mr. A. S. Dickinson, *Chairman*, the Banquet Committee; Mrs. S. K. Wolf and Mrs. O. F. Neu, *Hostesses*; Mr. W. Whitmore, *Chairman*, Publicity Committee; and Mr. E. R. Geib, *Chairman*, Membership Committee.

Credit for the Papers program and technical arrangements are due to Mr. J. I. Crabtree, *Editorial Vice-President*, and Mr. G. E. Matthews, *Chairman*, Papers Committee. Much assistance was rendered in preparing the program by members of the Society on both the East and West coasts.

Thanks are due also to the officers and members of Local 306 I. A. T. S. E. for providing the projectionist for the Convention.

Among the companies who contributed in equipment and service to the Convention were the following: International Projector Corp., National Carbon Co., Raven Screen Co., Eastman Kodak Co., Harry A. Strong Co., Bausch & Lomb Optical Co., Electro-Acoustic Products Co., Electrical Research Products, Inc.,

J. E. McAuley Manufacturing Co., National Theatre Supply Co., and Motion Picture Lighting and Equipment Co.

The Society is indebted to the following companies for the films loaned for the motion picture performance held on the evening of Tuesday, October 12th: Universal Pictures Corp., United Artists, March of Time, RKO Radio Pictures, Fox Movietone, Fleischer Pictures, and The Museum of Modern Art Film Library.

Acknowledgment is due also to Radio City Music Hall, Paramount Theatre, Roxy Theatre, and Warner Strand Theatre for supplying passes to members and guests during the week of the Convention; and to Warner Brothers and Paramount for providing entertainment features for the Banquet.

The Radio Corporation of America and the National Broadcasting Company are to be thanked for arranging the television demonstration on Thursday evening, and the Radio City Music Hall for arranging an inspection tour of the technical facilities.

Thanks are due to Bell Telephone Laboratories for holding the Monday evening session in the auditorium of the Laboratories building.