

- Better Sound-Reproducing Equipment (p. 12) C. VERITAS  
 Telefilm Race Track Control (p. 23)  
 21, 10 (Oct. 1946)
- The Forest Electronic Arc Lamp (p. 12) J. K. ELDERKIN  
 Some Historic Firsts: The Orthophonic Phonograph (p. 16)
- The Technicolor Cameraman (p. 20) W. HOCH
- Acoustical Society of America, Journal**  
 18, 2 (Oct. 1946)
- Measurement of Recording Characteristics by Means of Light Patterns (p. 387) B. B. BAUER
- The Effect of Non-Uniform Wall Distributions of Absorbing Material on the Acoustics of Rooms (p. 472) H. FESHBACH AND C. M. HARRIS
- Institution of Electrical Engineers, Journal**  
 93, 69, Pt. 1 (Sept. 1946)
- A Method of Transmitting Sound on the Vision Carrier of a Television System (p. 415) D. I. LAWSON, A. V. LORD,  
 93, 25, Pt. 3 (Sept. 1946) AND S. R. KHARBANDA
- Approximate Method of Calculating Reflections in Television Transmission (p. 352) D. A. BELL

## SOCIETY ANNOUNCEMENTS

### JOURNAL AWARD

The SMPE Journal Award for 1946 was presented to Ralph H. Talbot for his paper "The Projection Life of Film," published in the JOURNAL of August 1945. The award, given annually for the most outstanding paper originally published in the JOURNAL during the preceding year, was announced by President D. E. Hyndman at the banquet held on October 23 during the 60th Semiannual Convention of the Society in Hollywood. A suitably inscribed certificate was presented to Mr. Talbot.

The paper was first presented before the Society at the May 1945 Technical Conference in Hollywood. A biographical sketch of the author, who is associated with the Eastman Kodak Company, Rochester, will be published in an early issue of the JOURNAL.

Honorable Mention was given to the paper by D. W. Epstein and I. G. Maloff, of Radio Corporation of America, entitled "Projection Television," published in June 1945; also to E. W. Kellogg, of the same organization, for his paper, "ABC of Photographic Sound Recording," published in March 1945; and to M. H. Sweet, of Ansco, for the paper entitled "The Densitometry of Modern Reversible Color Film," published in the June 1945 JOURNAL.

### FELLOW AWARDS

In recognition of contributions made to the advancement of the motion picture industry and for services to the Society, seven Active members were elected to the grade of Fellow by action of the Board of Governors during 1946. At the banquet on October 23 in Hollywood, appropriate certificates were presented by President Hyndman to the following:

Ralph B. Austrian, RKO Television Corporation, New York.

Edmund A. Bertram, De Luxe Laboratories, New York.

John W. Boyle, Cinematographer, Hollywood.

Thomas T. Moulton, Twentieth Century-Fox Film Corporation, Beverly Hills, Calif.

William H. Offenhauser, Jr., Consultant to Columbia Broadcasting System, New York.

Lawrence T. Sachtleben, RCA Victor Division, Radio Corporation of America, Camden, N. J.

Abraham Shapiro, Ampro Corporation, Chicago.

### HONOR ROLL

During the summer the Honorary Membership Committee submitted a recommendation to the Board of Governors proposing that the names of Theodore W. Case, Edward B. Craft, and Samuel L. Warner be added to the Honor Roll of the Society in view of their contributions to the technical progress of the motion picture industry. At a meeting on October 20, the Board approved the recommendation and voted to submit these names to the general membership for ratification.

The proposal was unanimously approved by qualified members present at a business session held on October 21 during the 60th Semiannual Convention. The names are listed in the Honor Roll on the back cover of the November JOURNAL, with other outstanding pioneers of the industry now deceased.

### SCROLLS OF ACHIEVEMENT

As a highlight of the 60th Semiannual Convention in Hollywood, eight citations in recognition of outstanding achievement in the field of sound motion pictures were presented by the Society at the banquet on October 23. The awards were made in celebration of the Twentieth Anniversary of Talking Pictures, upon recommendation of the recently formed Committee on Citations. After unanimous approval by the Board of Governors, illuminated Scrolls of Achievement were prepared and awarded to the following:

Dr. Lee de Forest, in recognition of . . .

"His original researches which resulted in the invention of the Audion, a 3-electrode vacuum tube, destined to become a basic element in the development of telephonic communication, radio, and the sound motion picture;

"His demonstration between 1921-1923 of a method of photographing a variable-density sound record on motion picture film utilizing the Photion lamp, and a method of reproducing the photographic sound record in synchronism with a motion picture by means of the Phonofilm projector which incorporated the Case Thalafide cell and a multistage Audion amplifier;

"His courage and persistent efforts which made possible the first public showing

of topical sound motion pictures in the Rivoli and Rialto Theaters in New York on April 15, 1923, and subsequently in many theaters throughout the world.

"These researches and his pioneering vision of a great industry as described in a paper before members of this Society in May 1923 are recognized by the Presentation of this Scroll of Achievement by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. Jack Gaines, of Hollywood, in the absence of Dr. de Forest.



FIG. 1. Scroll of Achievement presented to Dr. Lee de Forest.

Bell Telephone Laboratories, Inc., in recognition of . . .

"Their fundamental research in the art of communication from which came the development of sound recording and reproducing equipment;

"Their development of methods of high-quality recording on both disk and film;

"Their design of equipment that made possible the first commercially successful sound pictures.

"This Scroll of Achievement is presented by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Dr. Harvey Fletcher, Director of Physical Research.

General Electric Company, in recognition of . . .

"Their development of the mirror oscillograph and its application to the practical recording of sound on film by the variable-area method;

"Their early recognition of the possibilities of sound reproduction and their technical developments in this art which resulted in greatly improved sound quality.

"This Scroll of Achievement is presented by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. S. E. Gates, Resident Officer, Los Angeles.

Metro-Goldwyn-Mayer Studios, in recognition of . . .

"The impetus given by them to the design and development of theater speaker and reproducing systems which has greatly enhanced theater reproduction of sound;

"Their origination of wide push-pull recording which forms the basis for present practice and standards;

"Their initiation of many other methods and devices which have been made available to the industry and which, through improving the flexibility of production operations, have made possible a more complete expression of creative artistry.

"This Scroll of Achievement is presented by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. Douglas Shearer.

RCA Victor Division, Radio Corporation of America, in recognition of . . .

"Their pioneering foresight and ingenuity and that of their predecessor, the Victor Talking Machine Co., in devising equipment and techniques for recording sound on disk for sound motion pictures;

"Their uninterrupted research and engineering developments in the field of motion picture sound which has been a source of continuous improvement in recordings and reproductions;

"Their development of manufacturing and distribution facilities which has played a vital role in translating the ideas of scientists and engineers into products and services for both producers and exhibitors of sound motion pictures.

"This Scroll of Achievement is presented by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. Max C. Batsel.

Twentieth Century-Fox Film Corporation, in recognition of . . .

"The pioneering work of the Fox-Case Corporation in the development of motion pictures with sound on film having quality comparable with that of sound on disk;

"Their engineering developments which resulted in such innovations as the first studio wholly designed for commercial sound recording, and the perforated sound screen;

"Their continuing leadership as producers of sound motion pictures of high quality which included the first unified sound picture news service, 'Movietone News' (October 1927) and the first out-of-doors recorded feature picture, 'In Old Arizona' (December 1928).

"This Scroll of Achievement is presented by the Society of Motion Picture

Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. Earl I. Sponable, of Movietone News.

Western Electric Company, Inc., in recognition of . . .

"Their accomplishments in manufacturing sound recording and reproducing equipment speedily and in large quantities to meet the sudden and unprecedented demand from the motion picture industry to provide facilities to studios and theaters for the conversion from silent to sound pictures;

"Their introduction of improved equipment and methods of recording as the art developed.

"This Scroll of Achievement is presented by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. T. K. Stevenson, Vice-President.

Westinghouse Electric and Manufacturing Company, in recognition of . . .

"Their pioneering efforts in the development of sound recording and sound reproduction for motion pictures; and

"The assistance they have given to engineers in standardization of methods and equipment in the motion picture art.

"This Scroll of Achievement is presented by the Society of Motion Picture Engineers in this Twentieth Year of the Successful Introduction of Sound Motion Pictures."

The Scroll was received by Mr. Charles A. Dostal, Vice-President, San Francisco.

Other citations presented in 1946 by the Board of Governors, upon recommendation of the Committee on Citations, were to Thomas Armat on the occasion of the Fiftieth Anniversary of the first exhibition of motion pictures in a theater, and to Warner Brothers in recognition of their pioneering courage and efforts in the development of sound recording and sound reproduction for motion pictures, reported in the August 1946 JOURNAL.

### ENGINEERING SOCIETIES COUNCIL

The Atlantic Coast Section of the Society is a charter member of the recently formed Engineering Societies Council of New York. As in numerous other cities, the Council is organized for the purpose of promoting the common interests of engineers and encouraging cooperation between the various engineering societies. Other charter members of the Council are:

- American Institute of Chemical Engineers.
- American Institute of Electrical Engineers.
- American Institute of Mining and Metallurgical Engineers.
- American Society of Heating and Ventilating Engineers.
- American Society of Mechanical Engineers.
- American Society for Metals.
- American Society of Safety Engineers.
- American Society for Testing Materials.
- American Society of Tool Engineers.
- American Chemical Society.
- American Welding Society.
- Illuminating Engineering Society.
- Institute of Radio Engineers.

Two persons are selected by each member society as representatives to the Council. The present representatives of the Atlantic Coast Section are James Frank, Jr., and C. R. Keith. While the first meetings have been largely concerned with organization, it is anticipated that the Council will soon be taking an active part in engineering affairs in New York City.

#### **SAMUEL L. WARNER MEMORIAL AWARD**

President D. E. Hyndman announced at the 60th Semiannual Convention that the Board of Governors of the Society had unanimously and enthusiastically accepted the offer of Warner Bros. Pictures to establish an SMPE Samuel L. Warner Memorial Award. The award will be a suitably designed gold medal and appropriate certificate to be presented annually to any individual contributing an engineering or technical invention or improvement in the art of motion picture production, distribution, or exhibition which is considered a recent advance in the industry.

The first award will be made in 1947, and a committee to formulate rules and procedure for making the awards has been appointed.

#### **ATLANTIC COAST SECTION MEETING**

The problems of maintaining motion picture theater sound equipment were discussed at the November 13 meeting of the Atlantic Coast Section of the Society by E. S. Seeley, Chief Engineer of the Altec Service Corporation, New York. Choosing as his title, "The Contribution of Theater Service to 20 Years of Motion Picture Sound Progress," Mr. Seeley described a number of conditions which had to be met during war emergencies and scarce material and parts, and demonstrated the effect on sound quality resulting from the introduction of noiseless recording, the objections to 6-cycle and 96-cycle flutter, and the effect on sound quality owing to deterioration of equipment caused by lack of service.

Mr. Seeley said that national service organizations would play a large part in the successful introduction of new developments in the future. While these developments are not commercially available today, they might involve such items as automatic volume control, stereophonic sight and sound, television, panoramic or wide-angle sound origin, extended frequency and volume range, and new color film.

Throughout his presentation Mr. Seeley gave many interesting test film demonstrations of sound quality and methods of checking equipment.

The meeting, held in the Twentieth Century-Fox Little Theater, New York, was opened with an enjoyable motion picture short.

#### **MIDWEST SECTION MEETING**

A large audience of members and guests of the Midwest Section of the Society in Chicago heard John A. Maurer describe the Maurer film recording equipment and new Maurer camera at a meeting held November 14. Mr. Maurer reviewed the status of sound-on-film recording and related picture problems. Resolution in sound and picture, as theoretical and practical limits, was discussed and demonstrated by test films.

The Maurer equipment was analyzed and salient features elaborated. Of particular interest was the intermittent which utilizes a long intermittent rest period instead of registration pins to achieve steadiness. Recording optics are made of precision polished cylindrical surfaces solely, allowing resolution in excess of available films. The details of the sound drum stabilizer were analyzed and caused considerable interest.

The meeting was held in the quarters of the Western Society of Engineers, and was attended by many members of The Institute of Radio Engineers and The Acoustical Society of America.

### PACIFIC COAST SECTION

A symposium on "Special Equipment" was held at the November 26 meeting of the Pacific Coast Section of the Society in the ERPD Review Room, Hollywood. The speakers were Kurt Singer, of Radio Corporation of America, Philip E. Brigandi, of RKO Radio Pictures, J. K. Hilliard, of Altec Lansing Corp., Carroll Dunning, of Dunning Color, R. Morgan, of Norman B. Neely Enterprises, and G. A. Mitchell, of Mitchell Camera Company.

In discussing the need and development of special equipment for the motion picture industry, Mr. Singer and Mr. Brigandi described a variable dip filter and its application to studio use. The need for the filter was called to RCA's attention when an arc whistle was inadvertently picked up on a Technicolor production. Commutator ripple modulation of the illuminating arcs had been recorded on scenes whose retaking would have involved a prohibitive cost. The arc whistle was satisfactorily eliminated by the dip filter and the costly scenes made usable. A demonstration of the variable dip filter was given.

Two new loudspeakers and a new amplifier were described and displayed by Mr. Hilliard. The smaller of the two loudspeakers is designed to give high-quality reproduction as applied to small portable cabinets such as used in the 16-mm field. The larger loudspeaker, intended for high-quality monitoring, is designed to give good high-frequency distribution and comparable high-quality reproduction of low frequencies. The amplifier was described as a 40-watt beam power unit designed primarily for use in disk recording.

Mr. Dunning demonstrated a new development known as the "Animatic Projector." The portable equipment synchronized a disk record containing voice and sound effects with a frame-by-frame projection of stills from 16-mm film. The disk turntable actuates the picture changes at regular intervals of several seconds. The equipment is used currently for sales instruction, visual education and television.

A Sorensen a-c line voltage regulator was discussed and shown by Mr. Morgan, who presented slides of the circuits employed. The characteristics of the d-c voltage regulator were also described.

Mr. Mitchell gave a short résumé of the features of the new Mitchell professional 16-mm camera, which was displayed with its accessories.

President-elect Loren L. Ryder and Section officers and managers for 1947 were introduced to the members and guests.

Lively discussion of the papers presented made the meeting one of the most interesting held recently in Hollywood.

## AMENDMENT OF BY-LAWS

Proposed amendment of By-Law XIII of the Constitution and By-Laws of the Society, authorizing the establishment of Student Chapters, as published on page 268 of the September JOURNAL, was discussed and voted on by qualified members present at a general business session of the Society on October 21 during the recent Hollywood Convention. It was unanimously approved.

## OFFICERS, GOVERNORS, AND SECTION MANAGERS FOR 1947-1948

As a result of the recent elections, the following is a list of the Officers and Governors of the Society for terms beginning January 1, 1947:

- \*\* *President*: LOREN L. RYDER
- \*\* *Past-President*: DONALD E. HYNDMAN
- \*\* *Executive Vice-President*: EARL I. SPONABLE
- \* *Engineering Vice-President*: JOHN A. MAURER
- \*\* *Editorial Vice-President*: CLYDE R. KEITH
- \*\* *Financial Vice-President*: M. RICHARD BOYER
- \*\* *Convention Vice-President*: WILLIAM C. KUNZMANN
- \*\* *Secretary*: G. T. LORANCE
- \* *Treasurer*: E. A. BERTRAM
- Governors from the Eastern and Central Time Zones:*
  - \* FRANK E. CARLSON
  - \* ALAN W. COOK
  - \*\* ROBERT M. CORBIN
  - \*\* DAVID B. JOY
  - \* PAUL J. LARSEN
- Governors from the Mountain and Pacific Time Zones:*
  - \*\* JOHN W. BOYLE
  - \*\* CHARLES R. DAILY
  - \* JOHN G. FRAYNE
  - \* WESLEY C. MILLER
  - \*\* HOLLIS W. MOYSE

Officers and Managers of the Atlantic Coast Section for terms beginning January 1, 1947, are:

- \* *Chairman*: JAMES FRANK, JR.
- \* *Past-Chairman*: FRANK E. CAHILL, JR.
- \* *Secretary-Treasurer*: H. EDWARD WHITE
- Managers*: \* HERBERT BARNETT
- \* HOLLIS D. BRADBURY
- \*\* F. J. GRIGNON
- \*\* THEODORE LAWRENCE
- \*\* JACK A. NORLING
- \*\* WILLIAM H. RIVERS

Officers and Managers of the Midwest Section effective January 1, 1947, are:

- \* *Chairman*: A. SHAPIRO
- \* *Secretary-Treasurer*: ROBERT E. LEWIS
- Managers*: \* OSCAR B. DEPUE
- \*\* WILLIAM C. DEVRY
- \* S. A. LUKES
- \*\* C. E. PHILLIMORE
- \*\* C. H. STONE
- \*\* R. T. VAN NIMAN

Officers and Managers of the Pacific Coast Section taking office as of January 1, 1947, are:

- \* *Chairman*: WALLACE V. WOLFE
- \* *Past-Chairman*: HOLLIS W. MOYSE
- \* *Secretary-Treasurer*: S. P. SOLOW
- Managers*: \* GERALD M. BEST
- \*\* A. C. BLANEY
- \* P. E. BRIGANDI
- \*\* F. L. EICH
- \*\* GORDON E. SAWYER
- \*\* N. L. SIMMONS

\* Term expires December 31, 1947.

\*\* Term expires December 31, 1948.

### BACK ISSUES OF JOURNAL AVAILABLE

We are passing along to interested members information on the availability of sets of back issues of the JOURNAL. Many of the issues involved are now out of stock and cannot be obtained through the Society. Since we have received requests for such sets from time to time, we are glad to cooperate in offering these JOURNALS to the membership. Details of price, payment, and shipment must be arranged direct with the owners concerned.

E. W. Nelson, 4525 Altgeld St., Chicago 39, Ill., offers to sell the following:

Issues July 1934 through December 1934 (one vol.), bound in standard library blue cloth binding, gold lettering, \$4.00. Issues January 1935 through December 1942 (bound as above, one year per vol.), 1935 vol. includes 1930-35 cumulative index, \$8.00 each. Unbound issues, January 1943 through December 1946, \$6.00 per year. Entire lot \$90.00, f.o.b. Chicago.

Mr. Nelson will arrange to have the single issues bound by the same book binder, should the purchaser desire. These JOURNALS are in excellent condition, Mr. Nelson states.

Another set of JOURNALS, beginning with the January 1930 issue through December 1946, is available from M. W. Palmer, 468 Riverside Drive, New York 27, N. Y. These are single copies and Mr. Palmer reports that they are in good condition. Details as to price, *etc.*, should be discussed with Mr. Palmer direct.

### INCREASE IN MEMBERSHIP DUES

Personal letters were recently mailed to all Associate and Student members of the Society by M. R. Boyer, Financial Vice-President, announcing an increase in annual membership dues. At the meeting of the Board of Governors held during the 60th Semiannual Convention in Hollywood, it was brought to the attention of the Board that our present Associate and Student membership dues were insufficient to cover the increased cost of JOURNAL publication and administration.

The Board, therefore, took the only action possible and voted to raise the dues of Associate members from \$7.50 to \$10, and of Student members from \$3 to \$5, annually. Bills for 1947 dues for these two grades, therefore, will show this increase:

At this time, Mr. Boyer would like to urge the many Associate members who are eligible for Active membership to consider applying for this higher grade membership in the Society. Many members find that active participation in Society affairs materially increases the value of the Society to them and their companies. Since only members in the higher grades are eligible to vote and hold office, opportunities for participating in Society affairs are obviously better for members in the Active grade.

### INCREASE IN JOURNAL SUBSCRIPTION RATE

Owing to increased costs of JOURNAL publication and administration, the Board of Governors of the Society has voted to raise the nonmember subscription rate to the JOURNAL from \$8 to \$10 annually, effective January 1, 1947. Single copies will be increased to \$1.25 each. The Board also voted to discontinue discounts for subscriptions and single copies received through accredited agencies, effective January 1, 1947.

## CORRECTION

In the paper "Factors Governing the Frequency Response of a Variable-Area Film Recording Channel," by M. Rettinger and K. Singer, published in the JOURNAL, 47, 4 (Oct. 1946), the authors request that a change be made on p. 303. The sentence in the eighth line beginning "For this reason. . ." should read:

"For this reason, the reverberation time at the lower registers is usually longer than for the extreme high tones. This accentuation or loss may be expressed by. . ."

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*We are grieved to announce the death of Joseph E. Robin, Active member of the Society, on December 21, 1946, in Palisades, New Jersey.*