

JOURNAL OF THE SOCIETY OF MOTION PICTURE ENGINEERS

SYLVAN HARRIS, EDITOR

Board of Editors

J. I. CRABTREE, *Chairman*

L. A. JONES

E. W. KELLOGG

A. N. GOLDSMITH

A. C. HARDY

H. G. KNOX

T. E. SHEA

Subscription to non-members, \$8.00 per annum; to members, \$5.00 per annum, included in their annual membership dues; single copies, \$1.00. A discount on subscriptions or single copies of 15 per cent is allowed to accredited agencies. Order from the Society of Motion Picture Engineers, Inc., 20th and Northampton Sts., Easton, Pa., or Hotel Pennsylvania, New York, N. Y.

Published monthly at Easton, Pa., by the Society of Motion Picture Engineers.

Publication Office, 20th & Northampton Sts., Easton, Pa.

General and Editorial Office, Hotel Pennsylvania, New York, N. Y.

West-Coast Office, Suite 226, Equitable Bldg., Hollywood, Calif.

Entered as second class matter January 15, 1930, at the Post Office at Easton, Pa., under the Act of March 3, 1879. Copyrighted, 1937, by the Society of Motion Picture Engineers, Inc.

Papers appearing in this Journal may be reprinted, abstracted, or abridged provided credit is given to the Journal of the Society of Motion Picture Engineers and to the author, or authors, of the papers in question. Exact reference as to the volume, number, and page of the Journal must be given. The Society is not responsible for statements made by authors.

OFFICERS OF THE SOCIETY

President: S. K. WOLF, 100 E. 42nd St., New York, N. Y.

Past-President: H. G. TASKER, Universal City, Calif.

Executive Vice-President: G. F. RACKETT, 823 N. Seward St., Hollywood, Calif.

Engineering Vice-President: L. A. JONES, Kodak Park, Rochester, N. Y.

Editorial Vice-President: J. I. CRABTREE, Kodak Park, Rochester, N. Y.

Financial Vice-President: O. M. GLUNT, 180 Varick St., New York, N. Y.

Convention Vice-President: W. C. KUNZMANN, Box 6087, Cleveland, Ohio.

Secretary: J. FRANK, JR., 90 Gold St., New York, N. Y.

Treasurer: L. W. DAVEE, 250 W. 57th St., New York, N. Y.

GOVERNORS

M. C. BATSEL, Front and Market Sts., Camden, N. J.

A. S. DICKINSON, 28 W. 44th St., New York, N. Y.

G. FRIEDL, JR., 25 Hunter Ave., Fanwood, N. J.

A. N. GOLDSMITH, 444 Madison Ave., New York, N. Y.

H. GRIFFIN, 90 Gold St., New York, N. Y.

A. C. HARDY, Massachusetts Institute of Technology, Cambridge, Mass.

K. F. MORGAN, 7046 Hollywood Blvd., Los Angeles, Calif.

C. H. STONE, 205 W. Wacker Drive, Chicago, Ill.
