

# JOURNAL OF THE SOCIETY OF MOTION PICTURE ENGINEERS

SYLVAN HARRIS, EDITOR

## Board of Editors

J. I. CRABTREE, *Chairman*  
A. C. HARDY

O. M. GLUNT

F. F. RENWICK

---

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

Publication Office, 20th & Northampton Sts., Easton, Pa.  
General and Editorial Office, 33 West 42nd St., New York, N. Y.

---

Copyrighted, 1933, by the Society of Motion Picture Engineers, Inc.

---

Subscription to non-members, \$12.00 per annum; to members, \$9.00 per annum, included in their annual membership dues; single copies, \$1.50. 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 33 W. 42nd St., New York, N. Y.

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. The Society is not responsible for statements made by authors.

Entered as second class matter January 15, 1930, at the Post Office at Easton, Pa., under the Act of March 3, 1879.