

# Journal of the Society of Motion Picture Engineers

VOLUME 52

JUNE 1949

NUMBER 6

|   | PAGE |
|---|------|
| Magnetic Recording in the Motion Picture Studio.....                    |      |
| WILLIAM A. MUELLER AND GEORGE R. GROVES                                 | 605  |
| Portable Magnetic-Recording System.....                                 |      |
| O. B. GUNBY   | 613  |
| Factors Affecting Spurious Printing in Magnetic Tapes.....              |      |
| S. W. JOHNSON   | 619  |
| Theater Loudspeaker Design, Performance, and Measurement.               |      |
| JOHN K. HILLIARD  | 629  |
| Physical Measurements of Loudspeaker Performance.....                   |      |
| PAUL S. VENEKLASEN  | 641  |
| Theater Reproducer for Double-Width Push-Pull Operation...              |      |
| G. R. CRANE   | 657  |
| Studio 16-Mm Re-Recording Machine.....                                  |      |
| G. R. CRANE   | 662  |
| 35-Mm-to-16-Mm Sound Reduction Printer.....                             |      |
| C. W. CLUTZ, F. E. ALTMAN, AND J. G. STREIFFERT                         | 669  |
| High-Quality Recording Electronic Mixer.....                            |      |
| KURT SINGER   | 676  |
| Preselection of Variable-Gain Tubes for Compressors.....                |      |
| KURT SINGER   | 684  |
| Direct-Positive Variable-Density Recording with the Light<br>Valve..... |      |
| C. R. KEITH AND V. PAGLIARULO   | 690  |
| Section Meeting.....  | 699  |
| 66th Semiannual Convention, Papers Program.....                         | 700  |
| Meetings of Other Societies During 1949.....                            | 700  |
| Current Literature.....   | 701  |
| New Products.....   | 702  |
| Book Review:  |      |
| "Hochstromkohlebogen," by Wolfgang Finkelnburg.....                     | 702  |

ARTHUR C. DOWNES  
*Chairman*  
Board of Editors

HELEN M. STOTE  
*Editor*

NORWOOD L. SIMMONS  
*Chairman*  
Papers Committee

Subscription to nonmembers, \$10.00 per annum; to members, \$6.25 per annum, included in their annual membership dues; single copies, \$1.25. Order from the Society's General Office. A discount of ten per cent is allowed to accredited agencies on orders for subscriptions and single copies. Published monthly at Easton, Pa., by the Society of Motion Picture Engineers, Inc. Publication Office, 20th & Northampton Sts., Easton, Pa. General and Editorial Office, 342 Madison Ave., New York 17, N. Y. Entered as second-class matter January 15, 1930, at the Post Office at Easton, Pa., under the Act of March 3, 1879.

Copyright, 1949, by the Society of Motion Picture Engineers, Inc. Permission to republish material from the JOURNAL must be obtained in writing from the General Office of the Society. Copyright under International Copyright Convention and Pan-American Convention. The Society is not responsible for statements of authors or contributors.