

31 papers



American Institute of Electrical Engineers

# SUMMER TECHNICAL PAPER PROGRAM

## June, 1945

### Meet by Mail

**H**ERE are the papers for the Summer Technical Paper Program. This is the second of a series of programs arranged to offer papers for discussion by mail in view of the cancellation of meetings and travel restrictions. Many of these papers have important wartime applications, which also will be useful in peacetime.

The value of a paper may be greatly enhanced by pertinent discussion. If you have comments related to the treatment of subject matter in any of the papers, submit your discussion and help advance the theory and practice of electrical engineering. Discussion of these papers should be mailed in triplicate before *July 15* to C. S. Rich, Secretary, Technical Program Committee, AIEE, 33 West 39th Street, New York 18, N. Y.

**Closing date for receipt of Fall Program papers — June 27**

#### Air Transportation

- 45-108. Treatment of High-Altitude Brushes by Application of Metallic Halides. H. M. Elsey, Westinghouse Electric Corp. 15 cents by mail.
- 45-109. Automatic-Temperature Control for Aircraft. R. A. Gund, General Electric Co. 15 cents by mail.
- 45-127. An Interval and Dwell Tester for Bomb-Release Interval Controls. T. H. Long, C. G. Conn, Ltd. 15 cents by mail.

#### Instruments and Measurements

- 45-105. A Tachometer-Accelerometer-Vibrometer for Instrument Gyro Testing. R. M. Laursen, Union Switch and Signal Co., and T. H. Long, C. G. Conn, Ltd. 15 cents by mail.
- 45-110. Heat-Flow Effects in a Resistance-Type Thermometer. N. P. Millar, General Electric Co. 25 cents by mail.
- 45-133. Response Time and Lag of a Thermometer Element Mounted in a Protecting Case. W. N. Goodwin, Jr., Weston Electrical Instrument Corp. 25 cents by mail.

#### Protective Devices

- 45-112. A New Outdoor Air Switch and the Principles Involved in Its Design. H. W. Graybill and J. S. Ferguson, Westinghouse Electric Corp. 15 cents by mail.
- 45-135. Biased Core Current Transformer Design Method. Theodore Specht, Westinghouse Electric Corp. 15 cents by mail.

#### Power Transmission

- 45-103. Oil Stress in Impregnated-Paper Insulation. J. B. Whitehead, The Johns Hopkins University. 15 cents by mail.
- 45-126. New Transmission Line Diagrams. A. C. Schwager, Pacific Elec. Mfg. Corp., and P. Y. Wang, National Resources Commission of China. 20 cents by mail.
- 45-115. Lightning Investigations on 33-Kv Wood-Pole Lines. F. E. Andrews, Public Service Co. of No. Illinois, and G. D. McCann, Westinghouse Electric Corp. 30 cents by mail.

[Over]

See **ELECTRICAL ENGINEERING** for Abstracts of Most Papers  
June Issue



## Summer Technical Paper Program—Continued

### ADVANCE COPIES OF PAPERS

Preprints of technical papers may be obtained by mail by remitting price indicated to the A.I.E.E. Order Department, 33 West 39th Street, New York 18, N. Y.; if purchased at A.I.E.E. headquarters 5¢ less per copy. For convenience an order form is enclosed. Coupon books in \$5.00 denominations are available for those who wish to avoid remittance by check or otherwise. Most of the papers ultimately will be published in **ELECTRICAL ENGINEERING** or the **TRANSACTIONS**.

### Power Generation and Automatic Stations

- 45-113. Automatic Regulation of Turbine Generators to Relieve Power-Supply Systems of Steel-Mill Load Swings. W. W. Eberhardt, Alabama Power Co.; C. W. Harrison and E. J. Kohn, Tennessee Coal, Iron, and Railway Co.; and A. G. Darling, General Electric Co. 30 cents by mail.
- 45-114. Automatic Load Control for Turbine Generators. F. E. Creaver and R. L. Jackson, General Electric Co. 20 cents by mail.

### Electric Machinery

- 45-130. Guides for Operation of Transformers, Regulators, and Reactors. Transformer Subcommittee. 30 cents by mail.
- 45-129. Impulse-Failure Detection Methods As Applied to Distribution Transformers. H. C. Stewart and J. E. Holcomb, General Electric Co. 20 cents by mail.
- 45-102. Symmetrical Components As Applied to the Single-Phase Induction Motor. F. W. Suhr, General Electric Co. 25 cents by mail.
- 45-119. Synchronous Starting of Generator and Motor. C. Concordia, S. B. Crary, and C. E. Kilbourne, General Electric Co., and C. N. Weygandt, University of Pennsylvania. 25 cents by mail.

### Industrial Control

- 45-123. Selsyn Design and Application. T. C. Johnson, General Electric Co. 25 cents by mail.
- 45-111. Static-Voltage Regulator for Rototrol Exciter. E. L. Harder and C. E. Valentine, Westinghouse Electric Corp. 25 cents by mail.
- 45-125. Industrial Control: Heating of Shunt-Motor Starting Resistors. G. F. Leland, General Electric Co., and L. T. Rader, Illinois Institute of Technology. 20 cents by mail.
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### Electric Welding

- 45-104. Line Drop Produced by Various Resistance-Welding Systems. R. L. Longini, Westinghouse Electric Corp. 15 cents by mail.
- 45-118. When the Welding Load Outgrows the Distribution Power Supply. C. N. Clark and C. M. Stearns, Duquesne Light Co. 15 cents by mail.

### Induction and Dielectric Heating

- 45-106. The Role of Frequency in Industrial Dielectric Heating. G. W. Scott, Jr., Armstrong Cork Co. 20 cents by mail.
- 45-107. Design of Induction-Heating Coils for Cylindrical Nonmagnetic Loads. J. T. Vaughan and J. W. Williamson, The Ohio Crankshaft Co. 25 cents by mail.

### Basic Sciences

- 45-121. Ferro-inductance As a Variable Electric-Circuit Element. J. D. Ryder, Iowa State College. 30 cents by mail.
- 45-137. Eddy-Current Resistance of Multilayer Coils. T. H. Long, C. G. Conn, Ltd. 20 cents by mail.
- 45-138. Resistance and Capacitance Relations between Short Cylindrical Conductors. F. L. ReQua, Public Utilities Commission, City and County of San Francisco. 20 cents by mail.

### Miscellaneous

- 45-116. Coincidence-Factor Relationships of Electric-Service Load Characteristics. Constantine Bary, Philadelphia Electric Co. 20 cents by mail.
- 45-134. The "S Function" Method of Measuring Attenuation of Coaxial Radio-Frequency Cable. Chandler Stewart, Jr., Dayton, Ohio. 15 cents by mail.
- 45-132. Statistics As an Aid to Engineering Judgment in the Manufacture of Lightning-Arrester Blocks. Casper Goffman, Westinghouse Electric Corp. 15 cents by mail.

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