American Institute of Electrical Engineers

WINTER CONVENTION

January 26-30
1942

ENGINEERING SOCIETIES BUILDING
33 West 39th Street • New York, N. Y.
American Institute of Electrical Engineers

Winter Convention Program

January 26-30
1942
GENERAL INFORMATION

A PROGRAM of 26 technical sessions and conferences, 1 general session, important committee meetings, a smoker, dinner-dance, and the Edison Medal presentation has been arranged. However in view of the war it has not been possible to arrange any inspection trips. For a complete schedule of events and index to details see page 3.

Please register promptly on arrival at the convention. A registration fee of $2 will be charged all non-members, except Enrolled Students and the immediate families of members.

Get tickets at once for the smoker, the dinner-dance and dance-buffet supper, as the number which can be accommodated is limited.

Information on all features of the convention may be obtained at the registration desk. The Institute rooms and offices on the tenth floor of the Engineering Societies Building are open to members.

Efforts will be made to deliver telegrams and messages promptly. Any mail for members received during the convention will be held at registration desk until called for; letters undelivered at the close of the meeting will be forwarded to latest mailing address. Room 401 is reserved for the Press.

Technical Sessions and Discussions are governed by the "Conduct of Technical Sessions" at the discretion of the chairman presiding. The Institute will appreciate your courtesy and cooperation in strictly abiding by the decisions of the chairman in all matters.

In general papers will be presented in abstract, 10 minutes being allowed for each presentation, unless otherwise arranged by the presiding officer.

Preference will be given to those who have explained in advance their intention to discuss papers. Usually 5 minutes are allowed to each discussor. Names and affiliations should be clearly announced from the platform. If discussions are intended for publication in the TRANSACTIONS they should be typewritten, double spaced (original and two carbon copies), and left with the chairman. Otherwise they should be sent to C. S. Rich, A.I.E.E., 33 West 39th Street, New York, N. Y., before February 14. Written discussions should be brief, without perfunctory commendations, and confined to individual papers rather than groups of papers.

Columbia Engineers Dinner for Columbia Electrical Engineers will be held Wednesday, January 28, at the Columbia University Club, 4 West 43rd Street. A social half hour will precede the dinner, which is scheduled for 6:30 p.m. Informal.
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Monday, January 26

9:00 a.m.—Registration

9:30 a.m.—Power Generation

(Auditorium)

W. L. CISLER, Presiding

41-158. A Turbine-Governor Performance Analyzer. W. O. Osbon, Westinghouse Electric and Manufacturing Company. 10 cents (by mail 15 cents).


42-73. Supplementary Control of Prime Mover Speed Governors. S. B. Crary and J. B. McClure, General Electric Company. 10 cents (by mail 15 cents).

9:30 a.m.—Light Traction

(Room 502)

E. B. FITZGERALD, Presiding


42-50. Modern Electrical Equipment for Industrial Diesel Electric Locomotives. Lanier Greer, General Electric Company. 10 cents (by mail 15 cents).

42-52. P C C Car Operating Results in Pittsburgh. W. J. Clardy, Westinghouse Electric and Manufacturing Company. 10 cents (by mail 15 cents).

9:30 a.m.—Conference on Use of Substitute Materials in the Communication Industry

(Room 501)

E. J. O'CONNELL, Presiding

The conference will begin with a talk by Robert E. McConnell outlining the general situation which necessitates the use of substitute materials and indicating the national problem from the material standpoint and the place of the engineer in its solution. Mr. McConnell is Chairman of the Engineers' Defense Board and is engineering consultant with OPM. This will be followed by brief talks by representatives of the communication industry telling what has already been done, what is under way and what remains to be done in connection with the use of substitute materials. Statements are expected from Messrs. W. M. Angus, R. S. Burnap, R. N. Harmon, L. C. F. Horle, P. J. Howe, R. L. Jones, E. A. Leach and F. C. Young. There will be ample opportunity for informal general discussion and questions and answers following these talks. In conclusion the important points will be summarized by E. E. Thum, Editor of Metal Progress.

Advance Copies of Technical Papers may be purchased at the registration desk or at Institute headquarters at prices indicated. Only numbered papers are available. 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 and the TRANSACTIONS.
2:00 p.m.—Power Generation and Transmission  
(Auditorium)  
W. L. CISLER and PHILIP SPORN, Presiding  
Address: “Power for War Needs.” J. A. Krug, Chief of the Power Branch, O.P.M.  
Report of Joint A.I.E.E.-A.S.M.E. Committee on a Specification for Speed Regulation for Prime Movers Intended to Drive Electric Generators. M. J. Steinberg, Chairman  
Address: “Reaction Heating Aids Progress of Welding High Pressure Steam Pipe.” C. J. Holslag, President, Electric Arc Cutting and Welding Co.  
42-36. Synthetic or Equivalent Load-Curves. R. F. Hamilton, Consulting Engineer. 25 cents (by mail 30 cents).  

2:00 p.m.—Heavy Traction  
(Room 502)  
E. B. FITZGERALD, Presiding  
42-55. Electropneumatic Brakes for High-Speed Trains with Particular Reference to Their Electrical Features. J. C. McCune, Westinghouse Air Brake Company. 15 cents (by mail 20 cents).  

2:00 p.m.—Conference on National Defense Lighting  
(Room 501)  
E. M. STRONG, Presiding  
A symposium has been arranged on the part that modern lighting will play in civilian defense. Emphasis will be placed on the research and test data now available as a result of many investigations undertaken during the past year. The speakers have been actively engaged in these investigations and are well qualified to discuss authoritatively the following subjects:  

Discussions on all subjects by those attending the conference are invited.  
† CP.: Conference presentation; no advance copies are available; not intended for publication in TRANSACTIONS.
6:30 p.m.—Eta Kappa Nu Award Dinner
F. X. BURKE, Presiding

Award to Cleo Brunetti (Univ. of Minn. '32, Ph.D. '37)
Honorable Mention: George F. Leydorf (Univ. of Cinn. '31, M.S. '33)
Simon Ramo (Univ. of Utah '33, Ph.D. Cal. Inst. of Tech., '36)
Dr. Cleo Brunetti and Dean R. L. Sackett will be the principal speakers of the evening
Dinner at Hotel Henry Hudson, Tudor Room, 353 West 57th Street. Reservations through R. W. Pashby, 11 Park Place—Tickets $2.00

Tuesday, January 27

9:30 a.m.—Switching Equipment
(Auditorium)
J. R. NORTH, Presiding

42-12. Field Tests on High-Capacity Station Breakers. H. D. Braley, Consolidated Edison Company of New York, Inc. 10 cents (by mail 15 cents).

42-30. Field Tests on High-Capacity Air-Blast Station-Type Circuit Breakers. H. E. Strang and W. F. Skeats, General Electric Company. 10 cents (by mail 15 cents).


9:30 a.m.—Auxiliary Traction
(Room 501-A)
E. B. FITZGERALD, Presiding


42-51. Progress in Development of Trolley Coach Overhead, Reflected in Higher Service Standards. L. W. Birch, Ohio Brass Company. 15 cents (by mail 20 cents).
9:30 a.m.—Communication
(Room 501-B)
HARADEN PRATT, Presiding

42-6. Frequency-Modulated Carrier Telegraph System. F. B. Bramhall and J. E. Boughtwood, Western Union Telegraph Company. 10 cents (by mail 15 cents).


42-58. Recent Developments in Burying Telephone Cables. Donald Fisher and T. C. Smith, American Telephone and Telegraph Company. 10 cents (by mail 15 cents).

9:30 a.m.—Standards Session and Conference
(Room 502)
R. T. HENRY, Presiding


CP† Application of Apparatus and Conductors under Various Ambient Temperature Conditions. R. E. Hellmund and P. H. McAuley, Westinghouse Electric and Manufacturing Company


C.P† The Thermal Co-ordination of Low-Voltage A-C Circuits. B. W. Jones, General Electric Company

Reports by Co-ordinating Committee Chairmen

2:00 p.m.—System Switching
(Auditorium)
J. R. NORTH and PHILIP SPORN, Presiding


† CP: Conference paper; no advance copies available; not intended for publication in TRANSACTIONS.


2:00 p.m.—Educational Session and Conference

(Room 501-A)

H. N. WALKER, Presiding

CP.† A Backward Look for a Forward Plan. F. C. Hockema, Purdue University

CP.† Refresher Programs at the Graduate Level in the Post-War Period. H. W. Bibber, Ohio State University

42-34. Evening Courses at Graduate Levels—A Challenge to Colleges of Engineering. Robin Beach, The Polytechnic Institute of Brooklyn. 10 cents (by mail 15 cents).

2:00 p.m.—Domestic and Commercial Applications Session and Conference

(Room 501-B)

ALEXANDER MAXWELL, Presiding


Mr. Carl F. Scott of the General Electric Company and other specially-invited speakers will discuss the various aspects of both domestic and commercial utilization of electricity.

6:00 p.m.—SMOKER

(Grand Ballroom—Hotel Commodore)

5:30 p.m. Cocktail hour 8:00 p.m. Floor Show
6:30 p.m. Dinner 9:15 p.m. Get-together

Tickets $3.75 per person. All seats reserved—tables for ten.

Make reservations through A.I.E.E. Smoker Committee and make checks payable to "Special Account A.I.E.E."

† CP.: Conference paper; no advance copies are available; not intended for publication in TRANSACTIONS.
Wednesday, January 28

10:00 a.m.—General Session

(Auditorium)

President DAVID C. PRINCE, Presiding

Opening Remarks, Philip L. Alger, Chairman, Technical Program Committee.

Presentation of Alfred Noble Prize to Robert F. Hays, Jr. by James K. Finch, Renwick Professor of Civil Engineering, Columbia University.

Address by speaker to be announced

2:00 p.m.—Symposium on Distribution Systems in War Time

(Auditorium)

PHILIP SPORN, Presiding


42-42. Power Supply to Distribution Substations in War Time. H. P. St. Clair, American Gas and Electric Service Corporation. 15 cents (by mail 20 cents).

42-61. Distribution Substations and War-Time Necessities. F. C. Poage and M. W. Reid, Ebasco Services, Inc. 10 cents (by mail 15 cents).


2:00 p.m.—Conference on “How Can the Institute Sections and Members Be Most Helpful in the Present Emergency?”

(Room 501-B)

P. L. ALGER, Presiding

†CP. Report on Activities of Local Engineering Councils in the United States, Based on Discussion at the Conference Held During the South West District Meeting in St. Louis. F. A. Cowan, Vice-Chairman, Technical Program Committee.

†CP. Regional Planning in the State of Pennsylvania. R. H. Smith, Deputy Secretary, Department of Commerce, Commonwealth of Pennsylvania.

2:00 p.m.—Basic Sciences

(Room 501-A)

W. A. LEWIS, JR, Presiding

42-43. Saturated Synchronous Machines under Transient Conditions in the Pole Axis. Reinhold Rudenberg, Harvard University. 20 cents (by mail 25 cents).

over
42-27. Formulas for the Magnetic Field Strength Near a Cylindrical Coil. H. B. Dwight, Massachusetts Institute of Technology. 20 cents (by mail 25 cents).


8:00 p.m.—EDISON MEDAL PRESENTATION PROGRAM AND ADDRESS
(Engineering Auditorium)
Medalist: Dr. John B. Whitehead, Director School of Engineering, The Johns Hopkins University
Address: “A Peace Worth Fighting For” Dr. William E. Wickenden, President Case School of Applied Science

Thursday, January 29

9:30 a.m.—Lightning
(Room 501)
PHILIP SPORN, Presiding


42-37. The Influence of Towers and Conductor Sag on Transmission Line Shielding. R. W. Sorensen and R. C. McMaster, California Institute of Technology. 15 cents (by mail 20 cents).


9:30 a.m.—Symposium on Asynchronous Machinery
(Room 502)
C. M. Gilt, E. E. Minor, and J. J. Orr, Presiding


42-65. Large Adjustable Speed Wind Tunnel Drive. C. C. Clymer, General Electric Company. 10 cents (by mail 15 cents).


2:00 p.m.—Lightning Arresters and Protection
(Room 501)
J. R. North and C. F. Wagner, Presiding


42-10. Temperature and Electric Stress in Impregnated Paper Insulation. J. B. Whitehead and W. H. Mac-Williams, Jr., The Johns Hopkins University. 10 cents (by mail 15 cents).

* A.C.O.: Advance copies only available; not intended for publication in TRANSACTIONS.
THURSDAY—Continued

2:00 p.m.—Air Transportation Session and Conference

Attendance restricted to members of the Institute who are citizens of the U. S. A.

(Room 502)
E. E. MINOR, Presiding

**A Direct-Current Telemeter or D-C Selsyn for Aircraft. R. G. Jewell and H. T. Faus, General Electric Company

**The Magnetic Drag Tachometer. R. G. Ballard, General Electric Company


**The Application of Voltage Regulators to Aircraft Generators. L. W. Thompson and F. E. Crever, General Electric Company

** Advance pamphlet copies not available.

7:00 p.m.—DINNER-DANCE—BUFFET SUPPER

The Waldorf-Astoria
Park Avenue & 50th Street
New York City

PROGRAM

Dinner on the Starlight Roof ........................... 7:00 to 9:00 p.m.
President’s Reception in the Palm Room .................................. 9:00 to 9:30 p.m.
Dancing on the Starlight Roof ................................... 9:30 to 2:00 a.m.
Buffet Supper in the Palm Room .................................. 12:00 to 2:00 a.m.

Music by JERRY SEARS’ ORCHESTRA

Tickets for Dinner-Dance .................................. $6.00 per person
Tickets for Dance-Buffet Supper .......................... $3.75 per person
Tickets for Buffet Supper .................................. $2.25 per person

Please purchase tickets early and indicate names of guests and desired seating arrangements. (Tables seat 8, 10, or 12 persons.) Make reservations through A.I.E.E. Dinner-Dance Committee and make checks payable to “Special Account A.I.E.E.”

Hotel parking fee $1.00—use 50th Street automobile entrance. Due to present emergency street parking is not recommended.
Friday, January 30

9:30 a.m.—Protective Relays
(Room 501)
J. R. NORTH, Presiding


9:30 a.m.—Electrical Machinery
(Room 502)
C. M. GILT, Presiding


42-67. Four-Winding Transformers. T. C. McFarland, University of California. 15 cents (by mail 20 cents).

42-68. Correction for Saturation. T. C. McFarland. University of California. 10 cents (by mail 15 cents).

42-44. Current Loci for the Capacitor Motor. T. C. McFarland, University of California. 10 cents (by mail 15 cents).

42-25. Resistance Welding Transients. E. E. Kimberly, Ohio State University. 10 cents (by mail 15 cents).

9:30 a.m.—Conference on Arc Back in Mercury-Arc Rectifiers
(Room 503)
S. B. INGRAM, Presiding
Sponsored by the Joint Subcommittee on Electronics this conference will take the form of an informal round-table discussion. There will be no fixed program and the objective will be to encourage as many as possible to take part in order that a profitable interchange of experiences may be obtained.

over
FRIDAY—Continued

2:00 p.m.—Instruments and Measurements

(Room 503)
F. B. SILSBEE, Presiding


2:00 p.m.—Industrial Power Applications

(Room 502)
J. J. ORR, Presiding


2:00 p.m.—Conference on Influence of Acceptance and Maintenance Testing on Successful Relay Design and Operation

(Room 501)
L. F. KENNEDY, Presiding

This conference will be devoted particularly to the value of testing in bringing out the need for improvement in various types and forms of relays. The primary objective of acceptance and maintenance testing is the prevention or elimination of incorrect relay operation and the conference will deal with difficulties experienced with protective relays and the remedies which have been found successful. The limitations in application as found by relay test characteristics will also be discussed. Three discussion leaders will present their views on this interesting and important subject, after which the conference will be opened for general discussion. The chairman is L. F. Kennedy and the discussion leaders will be Messrs. M. W. Evans, Duquesne Light Company; J. P. Kisch, Public Service Electric and Gas Company; and A. W. Rauth, Consumers Power Company.
LADIES’ PROGRAM
(Headquarters — Alcove — Tenth Floor)

Monday, January 26
9:00 a.m.—Registration

Tuesday, January 27
12:30 p.m.—Luncheon-Bridge-Costume Review
The review will be staged by The Traphagen School of Fashion and will include a showing of “Defense Costumes.” Neptune Room, Hotel Pierre, 5th Avenue and 61st Street. Register in advance. Tickets $2.00 per person.
Evening —Broadcast tickets obtainable at Ladies’ Headquarters

Wednesday, January 28
9:30 a.m.—Inspection of Red Hook Housing Development and Slum Clearance Project — also Bache Museum
As this trip will require auto transportation, those ladies interested must register in advance.
8:00 p.m.—Edison Medal Presentation Program and Address (Engineering Auditorium)
Medalist: Dr. John B. Whitehead, Director, School of Engineering, The Johns Hopkins University
Address: “A Peace Worth Fighting For,” Dr. William E. Wickenden, President, Case School of Applied Science

Thursday, January 29
7:00 p.m.—Dinner-Dance at the Waldorf-Astoria

Other Points of Interest Which May Be Visited
Hearst Antique Exhibit at Gimbel’s
Latin American Fair at Macy’s
Museum of City of New York
St. John’s Cathedral
WINTER CONVENTION

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COMMITTEE MEETINGS

Monday, January 26
10:00 a.m.—Subcommittee on Voltage Transients in Arc-furnace Circuits .......... 903
10:00 a.m.—Joint Committee on Oil Circuit Breakers
2:00 p.m.—Education .......... 1101
2:00 p.m.—Electrochemistry and Electrometallurgy .......... 903
2:00 p.m.—Lamme Medal .......... 1001

Tuesday, January 27
9:00 a.m.—Distribution Type Protector Tubes
10:00 a.m.—National Nominating .......... 1001
10:00 a.m.—Sections .......... 1101
2:00 p.m.—Joint Committee on Bushing Standardization .......... 1101
2:00 p.m.—Land Transportation ASCE Board Room, 15th Floor
2:00 p.m.—Membership .......... 1001
2:00 p.m.—Planning and Coordination .......... 903

Wednesday, January 28
10:00 a.m.—Protective Devices Executive Group .......... 1001
2:00 p.m.—Electrical Machinery .......... 1101
2:00 p.m.—Institute Policy .......... 1001
2:00 p.m.—Safety .......... 903
2:30 p.m.—Standards Coordinating Committee No. 1
ASCE Board Room, 15th Floor

Thursday, January 29
9:30 a.m.—Basic Sciences .......... 903
9:30 a.m.—Communication ASCE Board Room, 15th Floor
9:30 a.m.—Subcommittee on Stationary Contact Surfaces,
Standards Coordinating Committee No. 7 .......... 1101
2:00 p.m.—Board of Directors .......... 1001
2:00 p.m.—Subcommittee on Temperature Measurements
ASCE President’s Room, 15th Floor

Friday, January 30
11:00 a.m.—Joint Subcommittee on Electronics .......... 1001