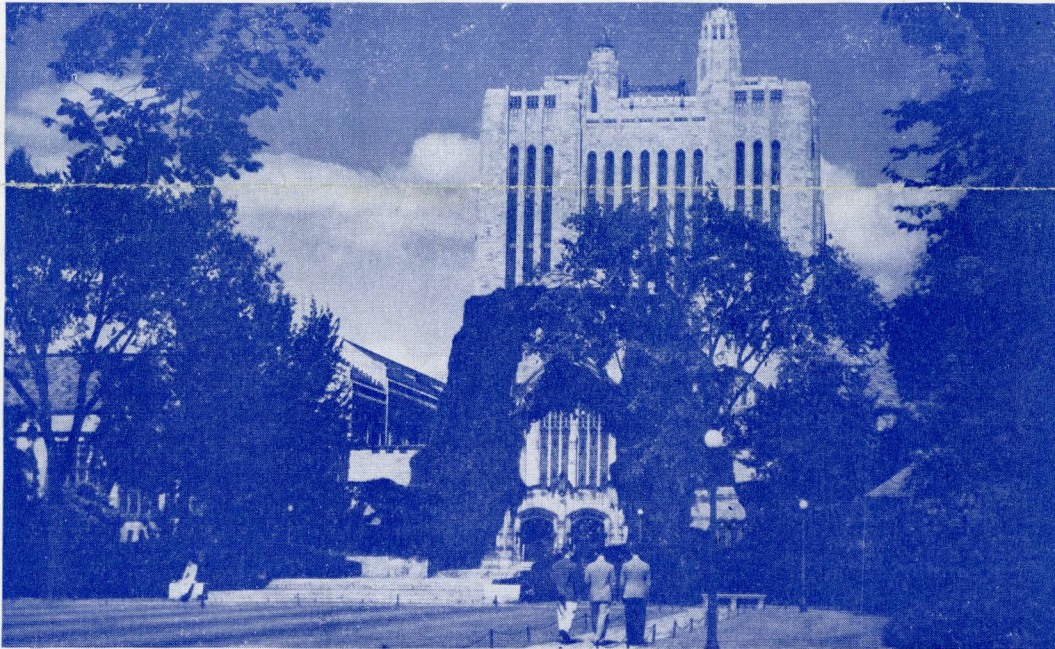


NORTH EASTERN DISTRICT MEETING

New Haven, Conn.
April 28 - 30, 1948



Headquarters:
Hotel Taft



Yale University Library

GENERAL INFORMATION

Registration: Please register in advance by promptly filling in and mailing the enclosed advance registration card. Complete your registration at the Registration Desk in the Mezzanine Corridor on arrival at the meeting. Identification badges and programs have been prepared for those who registered in advance and are available at the registration desk. A registration fee of \$2 will be charged all non-members, except Enrolled Students and the immediate families of members.

Information on all features may be obtained at the registration desk. The bulletin board near the registration desk will contain notices concerning time and point of departure for all inspection trips and other information of general interest. Please consult it frequently.

Technical Sessions will be conducted in Parlors A and B on the same floor as the registration desk, in the ballroom (take any elevator), and in The United Illuminating Company Auditorium (about 3 minutes walk; consult the map provided at the registration desk).

MEETING FEATURES

Entertainment: On Wednesday evening there will be a presentation by the Yale Dramatic Association at the Yale University Theatre. This is not connected with the meeting in any way but will provide a stage presentation that promises to be a little different than the normal. A number of tickets have been reserved and are available at the registration desk. Thursday evening there will be a social hour in the ballroom foyer at 6 p.m. and an informal banquet in the ballroom at 7 p.m. followed by an evening entertainment. Tickets for the banquet are \$3.75 each.

Ladies' Program: A varied and interesting program has been prepared for the ladies, including luncheons, teas, and tours through Yale Campus, Peabody Museum and to the Consumers' Institute at Bridgeport where there will be a demonstration of the proper use of the most modern cooking, refrigerating and deep freeze equipment for the house.

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NORTH EASTERN DISTRICT MEETING—PROGRAM—New Haven, Conn.—April 28-30, 1948

ADVANCE COPIES OF PAPERS

Members may obtain preprints of technical papers at the uniform price of **30¢ each (60¢ each to non-members)** by sending enclosed order form and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. District papers denoted by DP* are intended for presentation only, and are not available. Mail orders (particularly from out-of-town members) are advisable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Most of the papers ultimately will be published as AIEE PROCEEDINGS and in the TRANSACTIONS.

Wednesday, April 28

8:30 a.m.—Registration

Mezzanine

9:30 a.m.—Rotating Machinery

Ballroom

C. E. KILBOURNE, Presiding

- 48-110. Progress Report on AIEE-ASME Standards for Large 3600 RPM Turbine-Generators. S. H. Mortensen, Allis-Chalmers Mfg. Co.; J. B. McClure, General Elec. Co.; C. M. Laffoon, Westinghouse Elec. Corp. Presentation by title.
- 48-161. Performance Calculations of Induction Type Frequency Converters. F. R. Latzko, Electric Specialty Co.
- 48-162. Balanced Fractional—Slot Wave Windings. M. M. Liwschitz, Polytechnic Inst. of Brooklyn.
- 48-163. Doubly Chorded or Doubly Shifted Fractional—Slot Lap and Wave Windings. M. M. Liwschitz, Polytechnic Inst. of Brooklyn.
- 48-164. Operation of Large D-C Motors from Controller Rectifiers. A. Schmidt, Jr. and W. P. Smith, General Elec. Co.
- 48-165. Steady State Stability of Synchronous Machines as Affected by Angle Regulator Characteristics. C. Concordia, General Elec. Co.

9:30 a.m.—Transformers, Cables and Insulation

Parlor A

C. L. DAWES, Presiding

- 47-174. A New Line of Oil Filled Bushings. B. N. Bowers and D. L. Johnston, General Elec. Co.
- 48-177. Feeder Voltage Regulator Accuracy Standards. W. E. Birchard, General Elec. Co.
- 48-175. Electrical Properties of Ceramics as Influenced by Temperature. E. W. Lindsay and L. J. Berberich, Westinghouse Elec. Corp.
- 48-176. Statistical Methods as Applied to the Manufacture and Testing of Wire and Cable. M. G. Woolfson, General Cable Corp.
- DP.* High Voltage Testing: A Cooperative Industry—Education Venture. S. W. Zimmerman, Cornell Univ.

9:30 a.m.—Instruments and Electronics

Parlor B

P. A. BORDEN, Presiding

- 48-171. A New Line of Thyratrons. A. W. Coolidge, Jr., General Elec. Co.
- 48-172. Frequency Response Characteristics of Recording Instruments. T. D. Graybeal, Univ. of Calif.
- 48-173. An Instrument for Recording Continuously the Salinity, Temperature, and Depth of Sea Water. A. W. Jacobson, The Bristol Co.
- DP.* Clock Type Synchronous Motors and Application to Timing Devices. A. B. Poole, W. L. Gilbert Clock Corp.

2:00 p.m.—Industry Applications—Textile Machinery

Ballroom

F. D. SNYDER, Presiding

- DP.* Selection of Electric Drive for Looms. R. J. Damartini and A. F. Lukens, General Elec. Co.
- DP.* Trends in Loom Design and Their Effect on Drive Requirement. Victor Separich, Crompton and Knowles Loom Works.
- DP.* Minimizing Fire Hazards of Electrical Equipment on Looms. C. F. Hedlund, Assoc. Factory Mutual.
- DP.* Slasher Drives. C. E. Center, Westinghouse Elec. Corp.
- DP.* Drive Requirements for Cotton and Rayon Slashers. Frank Rose, Dan River Mills.
- DP.* Drive Requirements for Worsted Slashers. Paul Wenzel, Uxbridge Worsted Co.

2:00 p.m.—Circuit Breakers and Switchgear

Parlor A

H. J. LINGAL, Presiding

- 48-166. An Improved Design of Low Voltage Panel Mounted Air-Circuit Breaker. L. H. Sperow and J. A. Favre, General Elec. Co.
- 48-169. A New Isolated Phase Metal Enclosed Bus Designed for High Capacity Generating Stations. B. W. Wyman and R. B. Shores, General Elec. Co.
- 48-170. Circuit Breaker Modernization and Faster Fault Clearing on Single-Phase Electrified Railroad. H. F. Brown, N. Y., N. H. & H. R. R.; H. A. Travers, C. A. Woods, Jr., Westinghouse Elec. Corp.

2:00 p.m.—Special Industry Applications

Parlor B

D. R. PERCIVAL, Presiding

- DP.* An Automatic Line Voltage Regulator for Industrial Loads. E. W. Vaughn, Superior Elec. Co.
- DP.* Electrical Equipment for Plastic Injection Molding Machines. M. Morgan, Reed Prentice Co.
- DP.* High Frequency Circuits for Internal Grinding Machines. L. Morrill and S. Rice, Heald Machine Co.
- DP.* Electric Braking for Rubber Mills and Calenders. B. J. Dalton, General Elec. Co.

3:00 p.m.—Inspection Trips

J. B. T. Instruments, Inc.
A. C. Gilbert Company

Thursday, April 29

9:30 a.m.—General Session

Ballroom

Vice-President ERNEST W. DAVIS, Presiding

Remarks on Institute Affairs. Blake D. Hull, President, AIEE.
Address: "Conservation of our Nation's Natural Resources." T. J. Russell, Chairman, Connecticut Technical Council.
Address: "Electric Power Supply of the United States with Special Emphasis on the Northeast." C. W. Mayott, Connecticut Valley Power Exchange.

12:00 m.—District Executive Committee Luncheon

Room 119

2:00 p.m.—Power and Land Transportation

Parlor A

S. WITHINGTON, Presiding

- DP.* Interchange Accounting Procedure of the Connecticut Valley Power Exchange. E. C. Brown, Connecticut Valley Power Exchange.
- DP.* High Lights of Electric and Diesel Electric Locomotive Operation. P. H. Hatch, N. Y., N. H. & H. R. R.
- DP.* Railroad Mobile Communication. R. W. Tuttle, N. Y., N. H. & H. R. R.
During the afternoon there will be an inspection of a New Haven Railroad diesel-electric locomotive and an electric locomotive.

2:00 p.m.—Relays and Protective Devices

Parlor B

F. R. LONGLEY, Presiding

- 48-178. A New Distance Relay. C. G. Dewey and J. R. McGlynn, General Elec. Co.
- DP.* How Much Back-Up for a Bus Protective Scheme. J. M. Moore and C. A. Molsberry, United Illuminating Co.
- DP.* An Application for Carrier Relaying to a Three Terminal 115-KV Line. V. J. Hayes, Connecticut Lt. and Pr. Co.
- DP.* Limiter Applications in Underground Secondary Networks. J. A. Rogoff, Burndy Engg. Co.
- DP.* Experience in High Speed Reclosing of 114 KV Transmission Lines. G. E. Dana, N. Y. State E. & G. Corp.

2:00 p.m.—Wire Drawing Machinery

The United Illuminating Co. Auditorium

P. BLISS, Presiding

- DP.* Wire Drawing Processes. Roger Bryant, American Steel and Wire Co.
- DP.* Variable Voltage Control on Multi-Motor Wire Blocks. O. M. Bundy, Clark Controller Co.
- DP.* Electric Drive for Wire Winders. H. R. Lloyd, General Elec. Co.
- DP.* Flexibility of Multi-Motor, Multi-Spindle Tandem Wire Block Control. D. E. Donaldson, Electric Controller & Mfg. Co.
- DP.* Operating Performance of Wire Drawing Machines. D. Gueder, Reliance Elec. and Engg. Co.

Friday, April 30

9:30 a.m.—Special Industrial Applications and Heating

The United Illuminating Co. Auditorium

R. G. WARNER, Presiding

- DP.* Application of Eddy Current Coupling to Wind Tunnel Drive. F. W. Sama, Pratt and Whitney Aircraft.
- 48-17. Some Economic Aspects of Radio Frequency Heating. L. M. Duryee, The Connecticut Lt. and Pr. Co.
- DP.* A Quick Look at the Heat Pump. C. A. Williams and E. Hav. Walton, United Illuminating Co.
- DP.* The Heat Pump in New England—Progress Report of Heat Pump Study. C. H. Coogan, Jr., Univ. of Conn.
Immediately following this meeting (approximately 11:00 a.m.) will be a tour of the Heat Pump installation in the same building.

9:30 a.m.—Communication

Ballroom

H. M. TURNER, Presiding

- DP.* Mobile Telephone Service—General Problems. L. B. Grew, Southern New England Tel. Co.
- DP.* Mobile Telephone Service—Technical Aspects. J. M. Henry, New England Tel. & Tel. Co.
- DP.* Mobile Telephone Service—Special Applications. D. S. De-wire, N. Y. Tel. Co.
- DP.* Micro Waves in New England. C. R. Moore, American Tel. & Tel. Co.

9:30 a.m.—Student Session

Parlor A

E. R. McKEE, Presiding

- Increasing the Natural Resonant Frequency of Electro-Mechanical Oscillating Systems. George Gamble, Univ. of Conn.
- Multiplexing of Audio Channels by Time Division. George Arthur, Yale Univ.
- Synthesis of Stagger Tuned I.F. Amplifiers. S. E. Church, Yale Univ.
- An Infinite Impedance Detector. D. T. Feldman, Yale Univ.
- Testing Methods for Transients in Audio Amplifiers. T. R. Hodge, Yale Univ.
- Parlor B
A Simplified Gaussmeter for Measurement of Steady Magnetic Fields. James Biggerstaff, Univ. of Conn.
- Electrical Engineering Education. E. S. Rosett, Univ. of Conn.

Sectional Equipment—A Means of Reducing Cost Maintenance and Repair. Caleb Didriksen, Yale Univ.
A Transient Oscilloscope. P. M. Schultheiss and R. R. Shank, Yale Univ.
Properties and Applications of Selenium Rectifiers. A. L. Odmark, Yale Univ.
The Theory of the Polyphase Commutator Type Speed Regulator. W. W. Henderson, Yale Univ.

12:00 m.—Student Branch Chairmen's and Counselors' Luncheon

Loggia

2:00 p.m.—Inspection Trips

Dunham Laboratory of Yale University, General Electric Company, Wire and Cable Division by bus to Bridgeport.
Winchester Repeating Arms Company.
The United Illuminating Company, 30,000 KW Unit under construction.
Rockbestos Company—Heat and Flame-Proof Cable.
N. Y., N. H. & H. R. R., 10,000 RKVA Capacitor Station by bus.
American Steel and Wire Company.
Information about point of departure will be found on the bulletin board on the mezzanine.
Inspection of The United Illuminating Company Heat Pump and the N. Y., N. H. & H. R. R. Capacitor Station may be made at other times by special arrangement. Contact the registration desk on the mezzanine.

DP.*—District paper; no advance copies are available; not intended for publication in TRANSACTIONS.

INSPECTION TRIPS

The following inspection trips have been arranged. A registration fee of 50¢ per person per trip will be made for all trips except to The United Illuminating Company heat pump which is within walking distance. Please procure your tickets at the registration desk as early as possible to assure adequate transportation facilities. Bus and automobile transportation has been provided and in most cases will leave from the front of the hotel at the time indicated. Please consult the bulletin board for final arrangements. The bus or auto will carry a placard in the windshield of the same color as your ticket:

J.B.T. Instruments, Inc. Assembly, calibration and testing of moving vane and vibrating reed instruments as well as temperature tester covering ranges from -100° F to +2000° F.

A. C. Gilbert Co. A visit to famous Erector Square where details of "Erector" sets and small appliances will be on display.

N. Y., N. H. & H. R. R. Locomotives. Electric and diesel-electric locomotives of the newest type will be inspected.

United Illuminating Co. Heat Pump. A complete reversed refrigeration system for the heating and cooling of an office building.

Dunham Laboratory of Yale University. Ultra-high frequency equipment, electronic applications, communication equipment and servo-mechanisms will be on display with many demonstrations.

General Electric Co., Bridgeport. The wire and cable division will show the manufacturing and insulating of building wire, BX Cable and power cables including the application of lead sheaths.

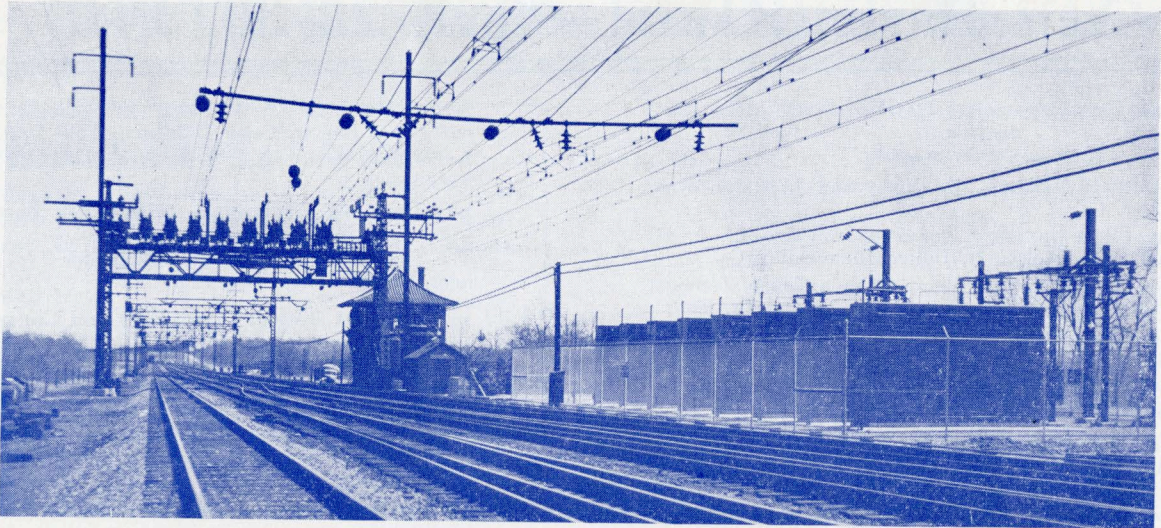
Winchester Repeating Arms Co. The manufacturing of sporting guns and ammunition as well as a line of cutlery articles will be available for inspection.

English Station—United Illuminating Co. A 90,000 KVA Steam station at tide-water where a 30,000 KW unit including steam generator will be seen in the process of erection.

Rockbestos Products Corp. Insulating copper wire for high temperature and other specialized use will be demonstrated.

N. Y., N. H. & H. R. R. Capacitor Station. A 10,000 RKVA, 11,000 volt switched capacitor station for reactive supply and voltage improvement.

American Steel and Wire Co. A modern electrified plant for the drawing and cabling of steel wire.



New 10,000 RKVA, 11,000 Volt Capacitor Station at Woodmont, Conn., to be inspected

LADIES' PROGRAM

Headquarters for Ladies' Activities will be in Room 117—across the lobby from the A.I.E.E. registration desk and up one flight.

Wednesday, April 28

- 1:00 p.m.—Luncheon at the Faculty Club. This is a short walk across the Green from the Taft. Please assemble in Room 117.
- 2:30 p.m.—Tour of Yale Campus. A conducted tour through Yale and arrangements have been made for official guides to meet you at the Faculty Club.
- 6:00 p.m.—There is no official program for dinner and the evening. You may care to attend the Yale Dramatic Association presentation for which tickets are available at the registration desk.

Thursday, April 29

- 1:00 p.m.—Luncheon at the Sanford Barn. This is in a suburb of New Haven and transportation (bus or car) will leave from in front of the Taft at 12:00 m. Please assemble in Room 117.
- 3:00 p.m.—Trip through Peabody Museum of Yale University. The transportation back from the Sanford Barn will take you to the Museum or, if you were unable to go to the luncheon, Room 117 will arrange transportation to the Museum.
- 6:00 p.m.—Social Hour will be in the Ballroom foyer.
- 7:00 p.m.—Banquet will be in the Ballroom—followed by entertainment.

Friday, April 30

- 11:30 a.m.—A trip to Consumers' Institute. A bus will leave from in front of the Taft for Bridgeport. Please assemble in Room 117.
- 12:30 p.m.—Luncheon in the Blue Room of the General Electric Co. plant at Bridgeport (assembly at Consumers' Institute).
- 2:30 p.m.—Program at the Consumers' Institute.
- 5:00 p.m.—Arrival at Hotel Taft, New Haven.

HOTEL RATES

Meeting headquarters will be in the Hotel Taft on the New Haven Green. Hotel facilities will be overtaxed at the time of the meeting; hence, members are urged to make hotel reservations at once directly with the hotel preferred. The Hotel Duncan is less than three blocks away and only a short walk. If rooms are not available at either of these two hotels, when your reservation is received, an effort will be made to obtain a reservation at one of the other hotels.

	Hotel Taft	Hotel Duncan
Double room with bath:		
for 1 person	\$7.00	\$6.00
for 2 persons	7.00	7.00

DISTRICT MEETING COMMITTEE

- J. F. Walker, *General Chairman*
- E. W. Davis, *Vice-President, North Eastern Dist.*
- Victor Siegfried, *Secretary, North Eastern Dist.*
- E. R. McKee, *Chairman, Student Activities, No. Eastern Dist.*
- E. G. Horton, *Secretary-Treasurer, Connecticut Section*
- H. F. Brown
- B. H. Caldwell
- E. R. Coop
- W. S. Fielding
- C. D. Hewitt
- H. C. Lindberg

Chairmen of Subcommittees

- H. O. Anderson, *Finance*
- H. F. Brown, *Technical Program*
- F. W. Buck, *Publicity and Printing*
- A. G. Conrad, *Student Program*
- E. D. Lynch, *Hotel and Registration*
- J. A. Nixon, *Entertainment*
- W. A. Upham, *Trips and Transportation*
- Mrs. C. A. Williams, *Ladies' Program*

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