

NORTH EASTERN DISTRICT MEETING

including
Northern Textile Conference

Boston, Mass.
APRIL 29 - MAY 1, 1953



Headquarters
Sheraton-Plaza Hotel



*Frigate Constitution
"Old Ironsides"*

*Lexington Green
Captain Parker*

*Old State House
Public Garden*

Paul Revere House

Bunker Hill Monument

GOLDEN ANNIVERSARY

Boston Section

The Boston Section, Host to the North Eastern District Meeting, extends congratulations to the Philadelphia and Schenectady Sections on their 50th Anniversary and invites all AIEE members to join in the celebration of its 50th year at the North Eastern District Meeting. In addition to the interesting program outlined for the meeting, Boston itself and environs have a great many historical points of interest which should not be missed.

The General Meeting, to be held Thursday morning, April 30th, in the Ballroom of the Sheraton-Plaza Hotel, will celebrate the 100th Anniversary of Dr. Elihu Thompson's birth, a founder of the Boston Section. Two excellent and well-known speakers will address this meeting: Dr. Karl T. Compton, Corporation Chairman, M.I.T., and Dr. Lawrence R. Hafstad, of the U. S. Atomic Energy Commission.

NORTHERN TEXTILE CONFERENCE—This District meeting has been selected by the Textile Industry Subcommittee, AIEE, for their annual Northern Textile Conference. It is hoped that members from all parts of the country will attend. This selection is felt to be appropriate because of the central location of Boston and the large number of textile manufacturers in this area. All members and guests may attend these sessions.

INSPECTION TRIPS—

1. Simplex Wire & Cable Company—Cambridge, Mass.
Wednesday afternoon, April 29, 1953.

This company manufactures nearly all types of electrically insulated wire and cable. The Cambridge organization consists of the factory, general offices, and laboratories and those making the trip will have an opportunity to see all the major processes involved in manufacture. These include stranding of conductors, mixing rubber compounds, insulating wire with rubber, paper, varnished cambric and plastics, cabling of multi-conductor cables and application of outer coverings such as lead sheath, rubber jacket, wire armor and weatherproof braids. The group will also visit the laboratories and finally will see a high-voltage electrical demonstration.

2. Massachusetts Institute of Technology—Cambridge, Mass.
Thursday afternoon, April 30, 1953.

This world-renowned institution is located on the banks of the Charles River facing Boston proper. The trip will include stops at The Cyclotron, The Synchrotron, Linear Accelerator, and the Research Laboratory of Electronics comprising communications, FM, Television, and computers. This trip will, of necessity, be limited to the first 48 persons signing up.

3. Museum of Science—Science Park, Boston, Mass.
Thursday afternoon, April 30, 1953.

Continued on page 3

AIEE North Eastern District Meeting—Program—Boston, Mass., April-29 May 1, 1953

ADVANCE COPIES OF PAPERS

Members may obtain preprints of numbered papers at the uniform price of 30¢ each (60¢ each to nonmembers), by sending enclosed order form and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Mail orders (particularly from out-of-town members) are advisable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Coupon books in \$9 denominations are available for those who wish to avoid remittance by check or otherwise. Numbered papers ultimately will be published in the Bimonthly Publications and in the Transactions. *Conference* and *District Papers* denoted by *CP.*** and *DP.*** are intended for presentation only and are not available.

Tuesday, April 28

Registration Desk open in afternoon.

Wednesday, April 29

8:30 a.m.—Registration

Lobby

9:30 a.m.—Relaying

State Suite
Chairman: H. L. GOODRIDGE

DP.** Comparison of Microwave vs. Carrier Channels for Protective Relaying. H. W. Lensner, Westinghouse Electric Corp.

DP.** A Simple Relay Scheme for Unit Generator-Transformer Station. G. Steeb, Niagara Mohawk Power Corp.

53-178. A Negative-Phase-Sequence Overcurrent Relay for Generator Protection. W. C. Morris and L. E. Goff, General Electric Co.

9:30 a.m.—Communication Transistors

Oval Room
Chairman: W. F. POTTER

DP.** Basic Principles of Transistor Electronics. M. Sparks, Bell Telephone Labs., Inc.

DP.** Transistors as Circuit Elements. R. L. Wallace, Jr., Bell Telephone Labs., Inc.

9:30 a.m.—Voltage Regulation

Foyer
Chairman: L. J. WEED

DP.** Feeder Voltage Regulators. E. Sagan, Westinghouse Electric Corp.

DP.** Voltage Regulation by Phase Angle Shift. R. Wheatley, Brockton Edison Co., Brockton, Mass.

DP.** Bus Voltage Regulation. D. R. Samson, General Electric Co.

12:00 noon—Luncheon—North Eastern District Executive Committee

Parlor 233

2:30 p.m.—Power System Communications

State Suite
Chairman: A. L. DAVIS

DP.** Automatic Load Frequency Control via Power Line Carrier on New England Electric System. L. G. Eaton and R. E. Minkwitz, New England Power Service Co.

DP.** Communication on the Central Maine Power Company's System. A. Rogers and B. Payne, Nepsco Services, Inc.

2:30 p.m.—Magnetic Amplifiers

Hub Room
Chairman: Dr. T. S. GRAY

DP.** Magnetic Amplifiers for Power Control. Dr. E. L. Harder, Westinghouse Electric Corp.

DP.** Magnetic Amplifier Circuit Techniques. H. M. Ogle, General Electric Co.

DP.** Magnetic Amplifiers in Digital Computers. D. A. Buck, Massachusetts Institute of Technology.

2:30 p.m.—Industrial Power Distribution

Oval Room
Chairman: D. L. BEEMAN

DP.** Recent Progress in 480/277 Volt Systems in Office Buildings. D. S. Brereton, General Electric Co.

DP.** Economic Modernization of Distribution Systems. L. R. Valonen, Westinghouse Electric Corp.

DP.** The New General Electric High Capacity Switchgear Development Laboratory. A. G. Boyd, General Electric Co.

2:30 p.m.—General Equipment Design

Foyer
Chairman: A. E. KILGOUR

DP.** A Practical Method for Plotting Electrostatic Field Distribution & Equipotential Lines. G. E. Jansson and Wm. Harper, Allis-Chalmers Mfg. Co.

DP.** Equations for the Inductance and Short-Circuit Forces of Three-Phase Busses Comprised of 120° Angles. J. W. Maier, Bell Aircraft Co. and T. J. Higgins, University of Wisconsin.

DP.** Transformer Noise Problems. K. P. Munter, Allis-Chalmers Mfg. Co.

53-177. Report on Double Cage Rotor Symposium. J. J. Courtin, Westinghouse Electric Corp. Presentation by title only for discussion.

6:30 p.m.—Smoker

Social Hour—Copley Club
Dinner—State Suite and Oval Room
Entertainment—Oval Room

Thursday, April 30

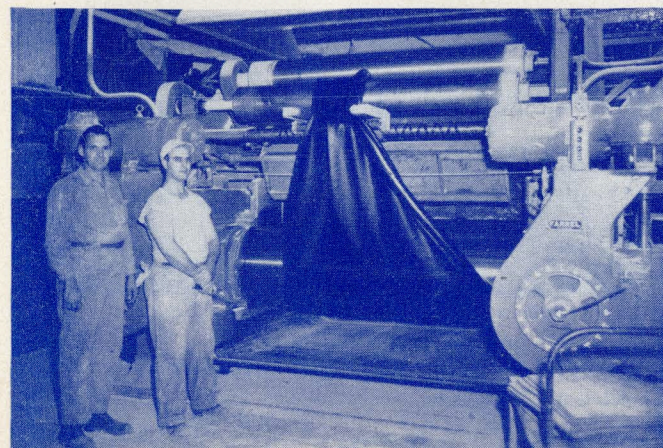
10:00 a.m.—General Session

Ballroom and Foyer
Presiding: Mr. A. C. POWEL, Past President AIEE,
Massachusetts Institute of Technology

"A Tribute to Dr. Elihu Thompson on His 100th Anniversary" by Mr. C. A. Powel.

"Progress Report on Atomic Power." Dr. Lawrence R. Hafstad, Director, Division of Reactor Development, U. S. Atomic Energy Commission.

"Nuclear Research in Retrospect and Prospect." Dr. Karl T. Compton, Massachusetts Institute of Technology.



Simplex Wire and Cable Co. Rubber Handling Machine

2:30 p.m.—High Voltage Transmission

State Suite
Chairman: H. R. TOMLINSON

DP.** Technical and Economic Aspects of High Voltage Transmission System Design. L. E. Saline, General Electric Co.

DP.** Power Line Crossings Over Water. H. N. Furlong and L. O. Waite, Stone & Webster Engineering Corp.

DP.** System Planning for Load Growth. A. A. Johnson, Westinghouse Electric Corp.

2:30 p.m.—Power Generation

Foyer
Chairman: N. STADTFELD

DP.** Effects of Loss of Field in Synchronous Generators. E. W. Church and F. Sherman, Boston Edison Co.

DP.** Excitation Systems for Turbine Generators. D. B. Hoover, Westinghouse Electric Corp.

2:30 p.m.—Productive Maintenance

Hub Room
Chairman: G. J. DELEHANTY

DP.** The Key to Productive Maintenance. H. F. McCullough, General Electric Co.

DP.** Preventive Maintenance in a Paper Mill. N. L. Danforth, St. Regis Paper Co., Bucksport, Me.

6:30 p.m.—Banquet

Ballroom and Foyer

Guest: Lt. Gov. Sumner G. Whittier.
Dancing: Baron Hugo and His Orchestra.

Friday, May 1

9:30 a.m.—Student Paper Sessions

Hub Room and Foyer

(List of Papers will be available at Registration Desk)

12:30 p.m.—Luncheon—Student Branch Chairman and Counselors

Parlor 133

2:30 p.m.—Industrial Process Control

Hub Room
Chairman: M. A. PRINCI

DP.** Selecting Parameters in Closed Loop Process Control Systems. Dr. D. P. Campbell, Massachusetts Institute of Technology.

DP.** (Subject to be announced.) A. Holmes, Monsanto Chemical Co.

DP.** Electrical Instrumentation in Process Plant Control. J. R. Ghublikian, Badger Process Div., Stone & Webster Engineering Corp.

NORTHERN TEXTILE CONFERENCE

FRIDAY, MAY 1

9:30 a.m.—Textile

State Suite
Chairman: V. F. SEPAVICH

CP.** Electrical Equipment Built into Textile Machinery. G. W. Knapp, General Electric Co.

CP.** Engineering Safety into Electrical Equipment. C. F. Hedlund, Associated Factory Mutual Insurance Companies.

12:30 p.m.—Textile Luncheon

State Suite
Chairman: R. J. DEMARTINI

"Can the Textile Industry Afford Engineers." Robert Browning, Booz, Allen & Hamilton, New York City.

2:30 p.m.—Textile

State Suite
Chairman: V. F. SEPAVICH

CP.** An Integrally Engineered Machine is Economically Desirable. R. A. Hudson, Saco-Lowell Shops, Biddeford, Maine.

CP.** The Value of the Engineer in the Textile Mill. L. A. Runton, Alexander Smith, Inc., Yonkers, N. Y.

CP.** and DP.**—Conference and District Papers; no advance copies are available; not intended for publication in the TRANSACTIONS.

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Of special interest to AIEE visitors will be exhibits of Prof. Elihu Thompson's inventions. This display commemorates the 100th Anniversary of his birth. He was one of the pioneers in the electrical industry and a founder of the Boston Section, AIEE. Other items of interest at Science Park include a working dial telephone system, a continuous cloud chamber giving visible evidence of the existence of atomic particles, a Sand-Pattern Pendulum which makes Lissajous Figures, and a detailed diorama showing how the Egyptians may have constructed their great pyramids.

4. Hytron Radio & Electronics Co.—Danvers, Mass.
Friday morning, May 1, 1953.

This is one of the most modern electronic tube plants in the world and is a Division of Columbia Broadcasting System, Inc. Its four plants employ 5,500 persons and produce millions of tubes a month. Equipment used in manufacture is so modern that it could not be purchased, but was designed in a special machine shop purchased by Hytron. Layout of the plant is functional, modern, and uses five kinds of gases and three kinds of electrical power, for which a special tunnel system honeycombs the basement. A special Development Tube Shop is equipped identically the same as a production unit in the factory proper and is used solely for engineering purposes.

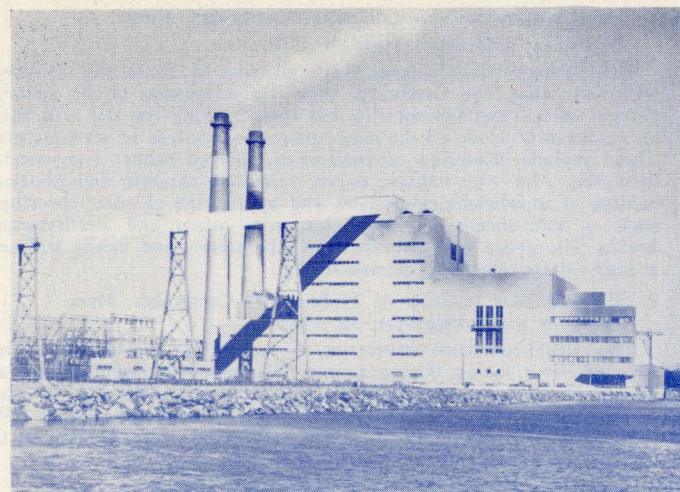
5. Salem Harbor Plant, New England Power Co.—Salem, Mass.
Friday morning, May 1, 1953.

Construction was started in December 1948 and the two 75,000-kilowatt turbine generators are now in commercial operation. The combined units will have a yearly output of more than 1,000,000,000 kilowatt hours. The plant serves a large portion of the North Shore District of Boston. Built on solid rock, the total initial cost for the two-unit plant was over \$30,000,000.

LADIES' ACTIVITIES—Mrs. L. J. Weed and her Committee have planned an excellent program of activities for the ladies attending the meeting. Parlor 131 at the Sheraton-Plaza has been reserved as a Ladies' Headquarters and will be staffed at all times during the meeting to aid in planning activities and for general information.

A Get Acquainted Tea will be held at the Ladies' Headquarters at 3 P.M. on Wednesday, April 29th. At 6:30 the same day, a Cocktail Hour and Dinner Party will be held at the University Club. Entertainment will be provided by Mr. Sherwood Blodgett, Magician. He has performed at numerous Boston functions and should have an interesting program.

Thursday morning, April 30th, a Sightseeing Tour has been planned which will include stops at the Christian Science Mapparium, Home of Longfellow, Agassiz Museum—home of the glass flowers, Harvard



Salem Harbor Plant of New England Power Co.

University, home of James Russell Lowell, among other outstanding points of interest.

Thursday noon a Luncheon has been planned at Gamsun's Restaurant in the heart of Chinatown. Afterwards, the group will visit the Chinese Merchants Association, largest of its kind in the United States, with rooms of embroidered paintings and a pagoda.

At 3 P.M. a demonstration of oil paintings will be given by James King Bonnar, one of New England's well-known artists. Mr. Bonnar will illustrate the technique he employs in this medium and upon completion of the painting, will answer questions. Also at 3 P.M. a joint inspection trip will be held at the Museum of Science.

Thursday evening the Ladies are invited to join their husbands at the Banquet to be followed by dancing to Baron Hugo's music.

Friday morning there will be a Coffee Hour at 10 A.M. with a talk on "The Secrets of the Powers' Girls" by a member of the John Robert Powers School. The afternoon will be given over to shopping.

ENTERTAINMENT—On Wednesday evening, April 29th, a Smoker will be held at the Sheraton-Plaza Hotel. Preceded by a Cocktail Hour at the Copley Club, a first rate beef dinner for the men will be served in the Oval Room and State Suites. An hour of top quality entertainment will follow supper.

The Ballroom and Foyer of the Sheraton-Plaza will be the scenes for the Thursday evening Banquet and Dance. Plans are being formulated to have a speaker of national prominence. Soft music, and appealing decorations, will supplement a gourmets dinner. The ladies are cordially invited to attend and there will be dancing to Baron Hugo's music following dinner.

Tables will be arranged for the Smoker and Banquet in groups of ten (10) and all tables will be numbered. Reservations may be obtained from Mr. W. A. Carlson, Westinghouse Electric Corp., 10 High Street, Boston, Massachusetts.

HOTEL RESERVATIONS—Members planning to attend the North Eastern District Meeting are urged to make hotel reservations now to be sure of accommodations. Blocks of rooms have been established at the Sheraton-Plaza Hotel (Meeting Headquarters) and at the Hotel Statler and Hotel Lenox, both within three blocks of the Sheraton-Plaza. Requests for reservations should be sent prior to April 15th to the hotel of choice, and to only one hotel. Please mention your attendance at the AIEE Meeting. If the reserved block at the hotel of choice is filled, the Hotel Arrangements Committee will arrange for transfer to another hotel, and you will be so notified.

Rates for rooms with bath are as follows:

Hotel Sheraton-Plaza (Meeting Headquarters), Copley Square

Single room	\$5.85-15.00
Double room, double bed	9.90-15.00
Double room, twin beds	11.00-16.00
Suite	25.00-35.00

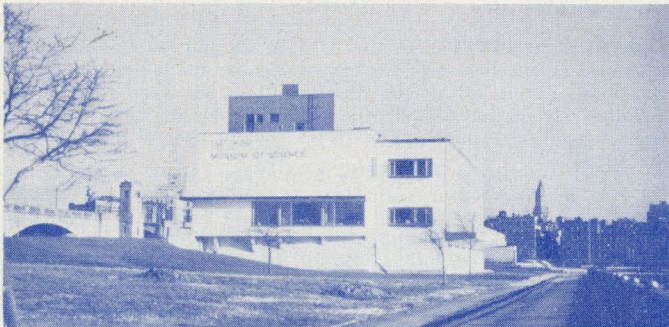
Hotel Statler, Park Square

Single room	\$6.00-10.00
Double room, double bed	10.00-13.00
Double room, twin beds	12.00-16.50
Suite	25.00-29.50

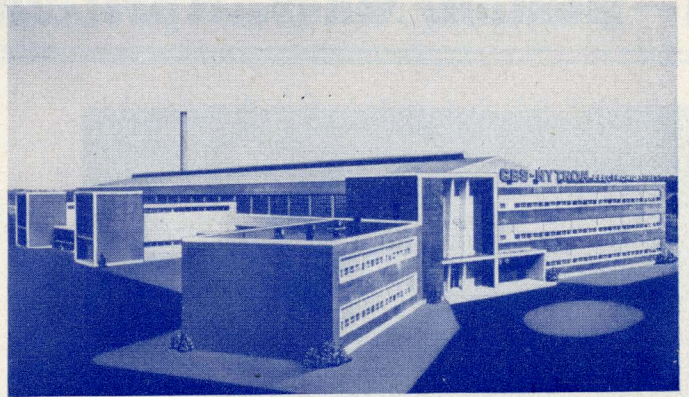
Hotel Lenox, Boylston and Exeter Streets

Single room	\$5.00- 6.00
Double room, double bed	7.00- 8.00
Double room, twin beds	9.00-10.00
Suite	11.00-16.00

ADVANCE REGISTRATION—Please register in advance by returning the accompanying advance registration card properly filled out. In so doing you will save time in completing registration details upon arrival at the hotel. The registration fee payable at the meeting will be \$2.00 for members, and \$3.00 for nonmembers. No fee will be required of enrolled students and immediate families of members.



Museum of Science, Science Park, Boston, Mass.



CBS Hytron Radio and Electronics Co., Danvers, Mass.

**COMMITTEES OF 1953
NORTH EASTERN DISTRICT MEETING**

General Advisory Committee

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G. J. Crowdes <i>Secretary</i>	C. L. Devoe <i>Treasurer</i>	C. W. Maloney
L. F. Cleveland <i>Historian</i>	C. A. Powell <i>Counselor</i>	S. M. Osthagen
		H. P. Turner
		E. W. Boehne
		W. F. Potter
		L. J. Weed

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R. E. Argersinger	R. E. Muehlig	J. Ward
H. F. Callahan	W. F. Potter	H. E. A. Wright
	J. E. Smith	

Technical Program

F. D. Snyder <i>Chairman</i>	L. T. Jester	M. Princi
J. O'R. Coleman	A. E. Kilgour	H. R. Stewart
T. Gray	R. G. Porter	L. J. Weed
	W. F. Potter	

Registration

A. L. O'Banion <i>Chairman</i>	F. J. Herzig	D. F. O'Leary
L. A. Cleveland	F. N. Hubley	E. T. Witt
R. C. Ghen	E. Kaplan	
	F. W. Nichols	

Hotel Arrangements

J. C. Hitt <i>Chairman</i>	J. F. Collins	J. Horvath, Jr.
J. F. Allen	L. C. Hawkes	N. Stadtfeld, Jr.

Publicity

L. T. Jester <i>Chairman</i>	E. A. Ericson	W. R. Saylor
G. J. Delehanty	S. M. Osthagen	J. Schneider
	R. G. Porter, Jr.	J. A. Tucker

50th Anniversary Banquet and Smoker

W. A. Carlson <i>Chairman</i>	P. Dempsey	E. Lake
G. Delahanty	H. Dickson	L. Iandall
	H. Evis	G. Oberbeck

Inspection Trips and Transportation

J. F. Archibald <i>Chairman</i>	A. B. Craig	K. Pope
	S. B. Lent	

Ladies' Entertainment

Mrs. L. J. Weed <i>Chairman</i>	Mrs. J. F. Archibald	Mrs. F. B. Haeussler
Mrs. G. J. Crowdes	Mrs. E. W. Boehne	Mrs. J. B. Powell
	Mrs. L. E. Cirella	Mrs. M. A. Princi
	Mrs. E. W. Davis	Mrs. F. D. Snyder

Hospitality

F. S. Bacon, Jr. <i>Chairman</i>

Social Hour

J. J. Loustanaun <i>Chairman</i>

Students

R. G. Porter <i>Chairman</i>

Textile Subcommittee, AIEE

S. Cowan <i>Chairman</i>	I. S. Bull	L. T. Jester
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	C. F. Hedlund	R. S. White

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