# NORTH EASTERN DISTRICT MEETING 3 Costa Richards afra

American Institute of Electrical Engineers

Van Curler Hotel, Schenectady, New York, May 10-12, 1933



The Research Laboratories of the General Electric Company



General Convention Program

HE NINTH annual meeting of the North Eastern District of the American Institute of Electrical Engineers will be held at Schenectady, N. Y., from Wednesday to Friday, May 10-12, 1933. Headquarters will be at the Hotel Van Curler at which all technical sessions will take place, with the exception of the session for Thursday morning, May 11. A program consisting of 4 technical sessions, inspection trips, annual dinner and dance, and entertainment features has been arranged by the committee; also there will be a students' session on Friday May 12. A special program has been arranged for women. The technical sessions will cover the following general subjects; namely, aeronautics, air conditioning, reactive power, and selected subjects.

Schenectady, situated on the Mohawk River, was originally settled by Van Curler in 1661. It is about 15 miles from both Albany, Capital of New York State, and Troy, N. Y., the 3 cities forming together what is generally known as the Capitol district. The city itself has a population of nearly 100,000 and is within easy reach of such well-known historic and scenic spots as Saratoga battlefield, Lake George, and the Adirondacks. Other well-known places are Cooperstown and Howe Caverns.

The city is the home of the American Locomotive and General Electric companies. The WGV broadcasting station is situated at South Schenectady. Union College, the oldest men's college in New York State, is within the city limits. In addition there are important representative concerns of the pulp and paper industries, carpet mills and textiles within easy reach. Of par-

ticular interest are the growing facilities of the Port of Albany, including a new high lift single span bridge from the City of Albany to Rensselaer, N. Y., and the largest grain elevator in the world.

The district is served by the New York Power and Light Company, which has recently completed a 132 kv tie line between Spier Falls and Poughkeepsie, N. Y., and a semi-outdoor synchronous condenser substation at Rotterdam Junction, near Schenectady.

## ENTERTAINMENT FEATURES

On Wednesday night, a special entertainment will take place in Rice Hall featuring an interesting story, not generally known, concerning the early technical difficulties which were encountered in the invention of the present talking motion picture. This will include short exhibits among which will be an actual reproduction of the sound track taken from a recording by Walter-Damrosch.

On Thursday night the annual dinner, including brief speeches by some distinguished guests, and novelty entertainment features will be held at headquarters and will be followed by the annual dance.

On Friday night, L. A. Hawkins and Oliver Ajar will give a group of General Electric research laboratory demonstrations, with special reference to electronic problems.

Those who enjoy sports are invited to make use of the facilities provided by the Mohawk Country Club and the Edison Country Club. Arrangements have been made so that visitors may make full use of these clubs upon payment of the usual greens fee. Both golf and tennis are provided.

### Women's Entertainment

A special committee is preparing an interesting program for women visitors. A luncheon or tea, followed by bridge for those who so desire, is proposed for Wednesday, while for the remaining days visits to beauty spots in the surrounding country or other places of interest, have been suggested. Women will be welcomed at the local country clubs under the same conditions as men. Owing to the great popularity of golf and tennis in Schenectady it is hoped that women will avail themselves of the facilities during the special times set aside for women players by the committees of the 2 clubs.

## INSPECTION TRIPS

Inspection trips are scheduled for Thursday afternoon and student inspection trips for Friday afternoon. A trip is being arranged through the Schenectady works of the General Electric Company, including the new outdoor mercury-steam-electric power station. For those who desire, trips to other points of engineering interest can be easily arranged.

#### LUNCHEONS

On Thursday there will be a luncheon in the works restaurant of the General Electric Company, Building 48, prior to the inspection trips. A special luncheon for students is arranged for Friday. On other days luncheon may be obtained at popular prices at any of the following restaurants, all of which are in or near headquarters: the Hotel Van Curler main dining room and coffee shoppe, the Y.W.C.A. cafeteria, and the Alba Shoppe.

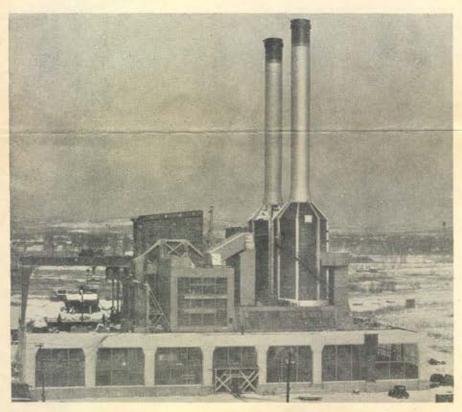
## REGISTRATION AND HOTEL RESERVATIONS

All planning to attend this meeting should register in advance if possible. Cards for this purpose will be sent to all members of Districts 1 and 3. Members should complete their registration after arrival so as not to miss the opening session. There will be no registration fees.

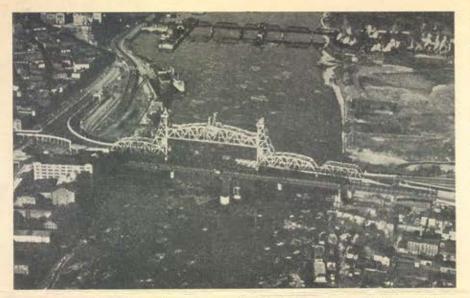
Hotel reservations should be be made directly with the hotel preferred. Rates for the headquarters hotel, the Van Curler, for the Mohawk Hotel and for the Schenectady Y.M.C.A., which has accommodations for transients, are given in the accompanying table.

An information desk and bulletin board will be found in the Hotel Van Curler. Notices should be consulted.

Hotel	Single	Double
Van Curler Hotel		
Without bath With bath Parlor suites	\$2.50-\$3.00 \$3.00-\$5.00 \$10.00 and	
Mohawk Hotel		
Without bath With bath	\$2.00-\$2.50 \$2.50-\$3.00	\$3.50-\$4.00 \$5.00-\$6.00
Y.M.C.A. (for men) No membership requ		



Outdoor mercury-steam-electric power station, known as Building 265 of the General Electric Company's Schenectady, N. Y., works. This station will be inspected with considerable interest by those attending the Institute's forthcoming meeting in Schenectady, May 10-12



Lift bridge, one of the largest of its type, over the Hudson River between Albany and Rensselaer, N. Y. It replaces the old swing bridge in the foreground

Private automobiles may be parked in the grounds of the Edison Club (city division) opposite headquarters. During the day cars also may be parked in the General Electric parking field. The company's patrol department has set aside a special space for the use of visitors. Visitors using either parking space do so entirely at their own risk.

# Program

Abstracts of all papers to be presented at the meeting are scheduled for publication in the May 1933 issue of Electrical Engineering as they were not available in sufficient numbers for inclusion in this issue. Articles based upon 2 of these papers are presented on p. 262–70 of this issue.

All technical sessions except one, and the opening of the meeting, will be held at the Hotel Van Curler. The remaining session, for Thursday May 11, will be held in Rice Hall, in the Schenectady Works of the General Electric Company.

# Wednesday, May 10

9:00 a.m.-Registration

9:30 a.m.—Opening Session

OPENING ADDRESS, J. A. Johnson, Vice-President, North Eastern District A.I.B.E., chief elec. engr., Buffalo, Niagara and Eastern Power Corp.

Selected Subjects-R. E. Doherty, Chairman

THE ELECTRICAL CHARACTERISTICS OF IM-PREONATED CABLE PAPERS, C. L. Dawes and P. H. Humphries, Harvard University.

Loss Characteristics of Silicon Steel at 60 Cycles With D-C Excitation, R. F. Edgar, General Electric Co.

VARIABLE SPEED CONSTANT VOLTAGE D-C MACHINERY, Fred. B. Hornby, General Electric Co.

THE DESIGN OF TRANSFORMERS USED IN RE-SISTANCE WELDING MACRINES, H. E. Stoddard, Thomson-Gibb Electric Welding Co.

How Are the American Colleges of Engineering to Adapt Treemselves to the Changed Conditions in Industry?, a talk by V. Karapetoff, Cornell University.

2:00 p.m.-Aeronautics-F. M. Ryan, Chairman

RADIO AIDS TO AIR NAVIGATION, C. F. Green and H. I. Becker, General Electric Co. Special

discussion of the paper by Messrs. Green and Becker, and a brief presentation of other developments in the field of aeronautics is being arranged.

8:00 p.m.—Special Entertainment Feature

Thursday, May 11

9:00 a.m.—Air Conditioning A. R. Stevenson, Jr., Chairman

ELECTRICAL EQUIPMENT FOR USE WITH AIR CONDITIONING, L. Gwathmey and B. S. Weaver, General Electric Co. (Not received for publication before the meeting.)

Energy Requirements of Various Types of Air Conditioning Apparatus, D. W. McLenegan, General Electric Co. (Received too late for publication before the meeting.)

AIR CONDITIONING IN ITS RELATION TO RAIL

ROADS, a talk by W. J. Madden, Pennsylvania Railroad Co.

ABRODYNAMIC ASPECTS OF AIR CONDITIONING, a talk by S. M. Anderson, B. F. Sturtevant Co.

12:00 noon—District Executive Committee Luncheon, Tower Room, Building 48, General Electric Co.

12:30 p.m.—Luncheon, Works Restaurant, Building 48, General Electric Co.

2:00 p.m.-Inspection Trips.

6:30 p.m.-Annual Dinner, Hotel Van Curlre.

9:30 p.m.-Dancing, Hotel Van Curier.

# Friday, May 12

9:00 a.m.—Student Technical Session, Prof. L. W. Hitchcock, Chairman, Student Counselors Committee

12:00 noon—Luncheon Conference of Counselors and Branch Chairmen

2:00 p.m.-Student Inspection Trips

2:00 p.m.—Reactive Power—A. E. Knowlton, Chairman

REACTIVE AND FICTITIOUS POWER, V. G. Smith, University of Toronto.

REACTIVE POWER AND POWER FACTOR, W. V. Lyon, Massachusetts Institute of Technology.

POWER, REACTIVE VOLT-AMPERES, POWER FACTOR, C. L. Fortescue, Westinghouse Elec. and Mfg. Co.

OPERATING ASPECTS OF REACTIVE POWER, J. Allen Johnson, Buffalo, Niagara and Eastern Power Corp.

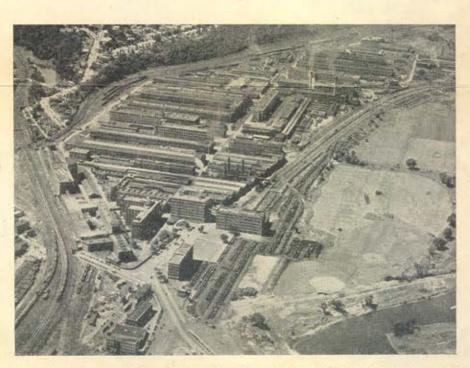
NOTES ON THE MEASUREMENT OF REACTIVE VOLT-AMPERES, W. H. Pratt, General Electric Co.

8:00 p.m.-Laboratory Demonstration

## Saturday, May 13

The committee will be glad to make arrangements for golf matches between teams representing the visitors and the Schenectady Section, further inspection trips, informal meetings, or any other activities desired by visitors.

At the technical sessions papers will be presented in abstract, 10 min being allowed



An airplane view of the Schenectady N. Y., works of the General Electric Company, which will be, without question, the principal point of interest to members and guests attending the forthcoming Schenectady meeting of the Institute to be held May 10-12, 1933

for each paper unless otherwise arranged or the presiding officer meets with the authors preceding the session to arrange the order of presentation and allotment of time for papers and discussion.

Any member is free to discuss any paper when the meeting is thrown open for general discussion. Usually 5 min are allowed to each discusser. When a member signifies a desire to discuss papers on other subjects or groups he shall be permitted a 5-min period for each subject or group.

It is preferable that a member who wishes to discuss a paper give his name beforehand to the presiding officer of the session at which the paper is to be presented. Copies of discussion prepared in advance should be left with the presiding officer.

Each discusser is to step to the front of the room and announce so that all may hear his name and professional affiliations.

Discussions at the technical sessions are not reported. To be considered for publication, discussions should be written and mailed to the A.I.E.E. Editorial Department, 33 West 39th Street, New York, N. Y., on or before May 26, 1933.

## COMMITTEES

The committees handling the work in con-

Hotel Van Curler, Schenectady, N.Y., headquarters for the A.I.E.E. District meeting May 10-12, 1933. This hotel, a 5-min walk from the Schenectady Union Station, theatres, and the Schenectady works of the General Electric Company, commands a fine view of the Mohawk River and the Adirondack foothills



nection with the Schenectady meeting are as follows:

District Meeting—J. A. Johnson, chairman, vicepresident, North Eastern District; A. C. Stevens, secretary-treasurer, North Eastern District; L. W. Hitchcock, chairman, Student Counselors, North Eastern District; C. W. Henderson, V. M. Montsinger, W. B. Hall, H. A. Maxfield, E. E. Johnson and H. H. Race.

Local—W. A. Terry, chairman; C. J. Koch, treasurer; S. A. Holme, publicity, sports, entertainment and dinner; H. M. Hartman, inspection trips; D. A. Yates, hotels and registrations; L. W. Hitchcock, student program; and Mrs. S. A. Holme, women's entertainment.

Hotels and Registrations-D. A. Yates, chairman,

R. O. Shepp, J. A. Setter, D. B. Gearhart, and W. B. Potter.

Finance—C. J. Koch, chairman, W. A. Terry. Publicity—S. A. Holme, chairman, F. A. Stortz, N. L. Hadley, and M. C. Hutchins.

Inspection Trips—H. M. Hartman, chairman, C. B. Kilbourne, J. A. Jackson, S. Martin, Jr., I. A. Terry, and H. A. Winne.

Sports, Entertainment, and Banquet -S. A. Holme, chairman, G. L. Irvine, G. W. Moorhead, H. H. Handorf, R. A. Beekman, and O. F. Olsen.

Student Program-L. W. Hitchcock, chairman, W. B. Hall, E. M. Strong.

Women's Entertainment—Mrs. S. A. Holme, chairman, Mrs W. A. Terry, and Mrs. H. M. Hartman.

