American Institute of Electrical Engineers

Summer Convention

Asheville, N.C.

TORONTO, CANADA

June 23-27

1934

TORONTO is located along the shores of Lake Ontario, which is a light green color similar to the color of the lake in the background of the photograph. It offers a delightful view of the city's skyline and the surrounding landscape. The conference will provide a unique opportunity for attendees to explore the city and enjoy its many attractions.

Make Reservations Now!

Toronto Skyline—Royal York Hotel in Center
THE
1930 A.I.E.E. Summer Convention
SPLendid TECHNICAL PROGRAM AND PLEASANT RECREATION
PLANNED FOR THE CONVENTION AT TORONTO, JUNE 23-27

An excellent technical program, delightfully combined with ample facilities for sports, has been arranged for the 1930 Summer Convention, which will be held, with headquarters in the Royal York Hotel at Toronto, Canada, June 23-27.

A selection of excellent technical papers covering various phases of the electrical industry has been made from a wealth of material. This material will be presented in eight technical sessions.

Two of these sessions will be symposiums: one under the auspices of the Protective Devices Committee on Transmission Line Relays, the other under the joint auspices of the Electrical Machinery and Transmission Committees on Coordination of Line, Station, and Apparatus Insulation.

A few of the subjects are: the 220-kv. system of the Hydro-Electric Power Commission; vertical shaft, 35,000-kva. synchronous condensers; hydro-power practice in central Europe; control systems for oil and gasoline electric locomotives; a 1000-kw. automatic rectifier; and centralized control of system operation.

The annual reports of the Technical Committees of the Institute will review the advances in theory and practice throughout the year.

The business side of the Convention will include the Annual Meeting of the Institute, a report of the Committee of Tellers on election of officers for 1930-1931, and a report on Constitutional Amendments, the President's Address, and presentation of prizes for papers.

The Conference of Officers, Delegates, and Members, under the auspices of the Sections Committee and Committee on Student Branches, constitutes an important feature of the convention.

The Lamme Medal, awarded several months ago, will be presented to Mr. R. E. Hallmun, East Pittsburgh, Pa., "for his contributions to the design and development of rotating machinery."

On Wednesday there will be a Directors' Luncheon and meeting.

The program being prepared should leave nothing to be desired, both from the standpoint of professional benefit and of general social enjoyment. The Meetings and Papers Committee have prepared a schedule of papers covering a wide diversity of interest, the local Convention Committee has arranged a series of events which will provide interest and pleasure for all available time throughout the entire Convention. Particularly should it be noted that the following program calls for the Convention to get into full swing on Monday morning; members are urged to arrive early and register promptly.
OUTLINE OF PROGRAM

Monday, June 23
9:00 a.m. Registration
10:30 a.m. Annual Business Meeting of the Institute
   Address of Welcoming: Annual Report of Board of Directors (in absence)
   President of Technicians, National Secretary
   Report of Teller's Committee on
   (a) Elections of Officers; Introduction of and
   response from President-Elect
   (b) Constitutional Amendments
   Presentation of Prizes for Papers
   Presidential Address. Harold B. Strauss
2:00 p.m. Conference of Officers, Delegates, and Members
   Qualifying Round for Meritum Trophy
   Tennis
   Ladies' Drive about City followed by Afternoon Tea at Gracious Club
4:30 p.m. Afternoon Tea
9:00 p.m. President's Reception—dancing

Tuesday, June 24
9:00 a.m. Registration
9:30 a.m. Two Technical Sections. (a) Protective Devices
   (Symposium on Transmission Line Relays);
   (b) Transportation
11:15 a.m. Session and Branch Delegates' Luncheon
2:00 p.m. Conference of Officers, Delegates, and Members
   —continued
   Trips as scheduled
   Sports as scheduled—First Round for Meritum Trophy
   Ladies' Trip across Harbor to Luncheon and
   Bridge at Royal Canadian Yacht Club
4:30 p.m. Afternoon Tea at Royal Canadian Yacht Club
7:00 p.m. Get-Together Dinner and Entertainment

Wednesday, June 25
9:30 a.m. Three Technical Sections. (c) Acoustics Sections;
   (d) Selected Subject and Technical Committee
   Reports; (f) Transmission
12:15 p.m. Director's Luncheon and Meeting
   Ladies' Drive to Old Mill for Luncheon, to be followed
   by Golf on miniature course, or Bridge
2:00 p.m. Trips as scheduled
   Sports as scheduled—Second Round for Meritum Trophy
4:30 p.m. Afternoon Tea
7:00 p.m. Convention Banquet
8:15 p.m. Medal Presentation
9:30 p.m. Dancing—cards

Thursday, June 26
9:00 a.m. Boat leaves for trip to new Welland Canal
   Lunch on St. Catharines
2:00 p.m. Inspection of Welland Canal
   Trips to Queenston and Niagara Falls
   Finals—Golf and Tennis
9:00 p.m. Dancing on boat

Friday, June 27
9:30 a.m. Two Technical Sections (1) Electrical Machinery
   and Transmission (Symposium on Coordination
   of Line, Station, and Apparatus Protection);
   (e) Communication
12:30 p.m. Luncheon—Presentation of Prizes
3:00 p.m. Technical Section. (3) Electrical Machinery and
   Power Generation
4:30 p.m. Afternoon Tea

LADIES' PROGRAM

The ladies are invited to all events, the following being
listed as of special interest to them.

Monday, June 23
10:30 a.m. Opening of Convention
   President's Address, Harold B. Strauss
2:00 p.m. Drive about City followed by Afternoon Tea at
   Gracious Club
9:00 p.m. President's Reception—dancing

Tuesday, June 24
2:00 p.m. Trip across Harbor to Luncheon and Bridge at
   Royal Canadian Yacht Club
7:00 p.m. Get-Together Dinner and Entertainment

Wednesday, June 25
12:15 p.m. Drive to Old Mill for Luncheon, to be followed
   by Golf on miniature course, or Bridge
7:00 p.m. Convention Banquet
8:15 p.m. Medal Presentation
9:30 p.m. Dancing—cards

Thursday, June 26
9:00 a.m. Boat leaves for trip to new Welland Canal
   Lunch at St. Catharines
2:00 p.m. Drive to Niagara Falls
9:00 p.m. Dancing on boat

Friday, June 27
12:30 p.m. Luncheon—Presentation of Prizes
4:30 p.m. Afternoon Tea

Other entertainment will be announced at the
convention.

Scene on Western Golf Course
TECHNICAL SESSIONS

NOTICE—Discussions of the technical sessions will
not be taken for any express. Each discussion
should be prepared or omit his remarks in writing.
Discussions requested by the Editorial Department
by July 20 will be considered for publication.

TUESDAY, JUNE 24
9:30 a.m.—Parallel Sessions A and B
(A) Protective Devices—Symposium on Transmission Line Relays
The Problem of Service Security in Large Transmission Systems
PAUL AHRENDT
Central Electric Power Association

Transmission Systems—Relay Protection, No. III
W. W. SNYDER
The Electric Bond & Share Company of New York

Modern Requirements for Protective Relays on Important System Interconnections
T. C. THAYER and L. E. KENNEDY
General Electric Co.

Directional Ground Relays
E. H. SWEET and J. B. HOFFMAN
Baltimore & Ohio Railroad Co.

High-Speed Protective Relay
L. L. GREENE

(B) Transportation
Electric Power Consumption for Yard Switching
A. P. BAYNE
E. Y. N. & H. R. R. Co.

Control Systems for Oil and Gasoline Electric Locomotives and Cars
S. L. GUNDERSON
American Electric Power Co.

Electric Transmission and Control of Power from Internal Combustion Engines for Transportation
R. T. DUNN
General Electric Co.

Apparatus for High Voltage Direct Current Multiple Unit Cars
C. J. ALEXANDER
General Electric Co.

Auxiliary Circuits for High Voltage D-C Motor Car Equipment
O. E. MARTIN and W. A. GREER
American Electric Power Co., Inc.

Railroad Practice and Experience on Electrically Steam Railways
P. F. RENSHAW
E. Y. N. & H. R. R. Co.

WEDNESDAY, JUNE 25
9:30 a.m.—Parallel Sessions B and C
(C) Automatic Stations
An Electron Tube Telemattering System
A. L. FITZGERALD
General Electric Co.

Development of a Two-Wire Supervisory Control System with Remote Metering
E. J. KENYON and W. H. KNOX
Western Union Western & Mfg. Co.

Centralized Control of System Operation
J. T. LANNON
Public Service Electric & Gas Co.

Automatic Power Supply of the Carnegie Steel Company
ROBERT HILKEY
Hillman Steel Co.

1000 Kw. Automatic Mercury Arc Rectifier of the Union Railway Company, New York
W. H. GUTZPELDER and OTTO NAM
Fulton Electric Co.

Minister Switchboards
FIELD SPORTS
American Gas & Electric Co.

(D) Selected Subjects and Technical Committee Reports
Radar Line Construction in Ontario
W. H. MILLER
New York Power Commission

Mutual Impedance of Ground Return Circuits—Some Experimental Studies
E. H. NORTON
American Telephone & Telegraph Co.

Second Electrical Light Association

Theory and Characteristics of Grid-Controlled Glow and Arc Discharge Tubes
D. D. RUGGLES and W. P. ROBERTS
Western Electric Co.

Effects of the Magnetic Field on Lichtenberg Figures
D. F. GRIMM
University of Chicago

A Survey of Room Noise in Telephone Locations
W. F. WILLIAMS
National Bureau of Standards

Asynchronous Machines
A. G. MCGLINCHIE
American Telephone & Telegraph Co.

Reports of Technical Committees including the address and the papers described for the year in various fields of the electrical industries are listed as follows. These reports will not be printed but copies will be available and may be obtained during this session.

Automatic Reactors
F. TEIXEIRA
Electrical World

Electrical Engineering
S. R. WISE
Electrical World

The Development of the Electric Industry
A. H. COX
Electrical World

The Future of the Electric Industry
G. R. TOMLINSON
American Institute of Electrical Engineers

Power Transmission and Distribution
J. E. PEARCE
Electrical World

Power Transmission and Distribution
F. A. AHERN
Electrical World

Protective Devices
F. K. SKEEN
Electrical World

(B) Transmission
The 220,000-Volt-System of the Hydro-Electric Power Commission of Ontario
S. T. BRANDON
Hydro-Electric Power Commission of Ontario

The Analytical of Transmission Calculations
W. H. MILLER
University of Toronto
TECHNICAL SESSIONS

Recommendations on Balancing Transformer and Line Insulation on Buses of Impulse Voltage Strength
V. M. MONTGOMERY
American Gas and Electric Co.
W. M. DANN
Washington Electric Co. of Mls.
Coordination of Insulation as a Design Problem
E. W. SPALDING
Hydro-Electric Power Commission of Ontario
Standards of Insulation and Protection for Transformers
H. J. PECK
Trafalgar Hydro-Electric Power Corp.
D. W. DUNST
McNaughton Electric Co.
Essential Factors in the Coordination of Line, Station, and Apparatus Insulation
A. E. MIYER and H. L. MILLER
Brown and Root, Inc.

Communication
Long Distance Cable Circuit for Program Transmission
A. W. CLARK
American Telephone & Telegraph Co.
Stations
R. L. CURTIS
American Telephone & Telegraph Co.
Transmission Characteristics of Open-Wire Telephone Lines
F. L. GODFREY
American Telephone & Telegraph Co.
Study of Telephone Line Insulators
L. F. WILSON
American Telephone & Telegraph Co.
General Switching Plan for Telephone Toll Service
H. A. LOCKHART
American Telephone & Telegraph Co.
Long Telephone Lines in Canada
E. L. CLEMENS
British Telephone Company of Canada
Two-Way Televisions
H. L. PATT
Bell Telephone Laboratories, Inc.

FRIDAY, JUNE 27
9:30 A.M.—Parallel Sessions F and G

(F) Electrical Machinery and Transmission—Symposium on Coordination of Line, Station, and Apparatus Insulation
Rationalization of Station Insulating Structures with Respect to Insulation of Transmission Lines
C. L. FARMER
Washington Electric Co. of Mls.
The Effect of Transformer Voltages on Dielectrics—IV,
Law of Impulse Spacing and Tins Lag
P. W. VERNON
McNaughton Electric Co.
Rationalization of Transmission Insulation Strength, II
P. W. VERNON
American Gas and Electric Co.

Leslie Station—35,000 kw. Outdoor Condenser
TRIPS

Welland Canal—The outstanding trip will be an all-day outing, coming Lake Ontario to use the new Welland Canal, which embraces some features existing anywhere historic structures taken in canal construction. Those desiring to do so will be able to spend the afternoon at the Queenston Plant of the Hydro-Electric Power Commission or at various power plants at Niagara Falls. Special entertainment features are being arranged in connection with this trip in a way that will ensure a day of general relaxation and enjoyment.

Lazaro Station—The Lazaro Station of the Hydro-Electric Power Commission on the outskirts of Toronto is Canada’s first 250-kv. receiving station. It has many interesting features, including two 25,000-kv. outdoor synchronous condensers.

Other Power Stations


Toronto Hydro-Electric System. Automatic High Force Mercury Arc Rectifier, Railway Station, Supervisory Control Stations, Local Dispatching Office in Duncan Street Station.

ELECTRIC MANUFACTURERS PLANTS


Points of Interest


There are also many manufacturing plants to which trips will be arranged as desired.

ENTERTAINMENT

The principal entertainment features are shown in the following program. It is envisaged that these events will be outstanding for their respective limbs. In general, the Committee is leaving no stone unturned in its efforts to make this Convention a memorable one.

Ladies—The ladies attending the Convention should have a particularly interesting time, as the Committee has arranged a very attractive program for their entertainment. In addition to the all-day trip by boat across Lake Ontario, to view the Welland Canal, there will be six different drives covering points of interest in and near the city. An afternoon of golf has been arranged preceded by luncheon at the Mimicoa Golf Club. There will be a bridge game arranged for those not playing golf.

On week-end getaways it has been planned to take the ladies for lunch along the lake shores, in the vicinity of the harbor and have tea served afterward at the Royal Yacht Club. There will be two dances during the Convention, in the evening.

A large local Convention of Ladies will do everything possible to look after the comfort and pleasure of visiting ladies, both individually and collectively.

Welland Canal at Laza Bridge
SPORTS

The main event for athletes will be the annual tournament for the Meriden Trophy, which will be played over the course of the Women's Golf and Country Club. As it is proposed to present the prizes at the luncheon on Fri-
day, and as the match play in this competition is currently in many cases not until the available time, it is essential that the qualifying round be completed on Monday. This will make it quite possible to
Monday will be unable to enter the Meriden Cup competition.

The Committee are the separate events, the details of which will be given out as registration. These events will not be
confined to the course of the Women's Golf & Country Club, as arrangements have been made to allow the competition, and registered
entrants to play over a number of courses in the Toronto vicinity, and all arrangements are made to these specifications.

It is hoped that the chief among these additional events will be an International Tennis Tournament for the American Can-
dian Team championship at the Fontaine, arrangements for which are now being worked out.

The greens fees will be charged members or registered guests
for any stay during the Competition, and transportation to and
from all courses will be provided.

HOTELS

The Royal York Hotel, which will constitute the hotel head-
quarters, has been operating for many years. It compares favorably not only in all general particulars with the latest and best of new hotels in America, but has a whole floor devoted to special conveniences among its ten private suites, the
Union Station, and opposite the Auburndale and Lake Ontario.

The direction of hotels, their rates and distances from the hotel headquarters, transportation should be made by communicat-
ing directly with the hotel referred.

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Single Room with Bath</th>
<th>Single Room without Bath</th>
<th>Double Room with Bath</th>
<th>Double Room without Bath</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal York</td>
<td>54.95</td>
<td>31.95</td>
<td>68.95</td>
<td>31.95</td>
<td>$6.80</td>
</tr>
<tr>
<td>King Edward</td>
<td>25.95</td>
<td>15.95</td>
<td>38.95</td>
<td>15.95</td>
<td>$4.20</td>
</tr>
<tr>
<td>Prince Consort</td>
<td>45.95</td>
<td>25.95</td>
<td>58.95</td>
<td>25.95</td>
<td>$5.20</td>
</tr>
<tr>
<td>Westcliff</td>
<td>52.95</td>
<td>32.95</td>
<td>65.95</td>
<td>32.95</td>
<td>$5.50</td>
</tr>
<tr>
<td>Hotel Fairview</td>
<td>43.95</td>
<td>23.95</td>
<td>56.95</td>
<td>23.95</td>
<td>$4.50</td>
</tr>
<tr>
<td>Westminster</td>
<td>43.95</td>
<td>23.95</td>
<td>56.95</td>
<td>23.95</td>
<td>$4.80</td>
</tr>
<tr>
<td>Fort Hotel</td>
<td>51.95</td>
<td>31.95</td>
<td>64.95</td>
<td>31.95</td>
<td>$5.40</td>
</tr>
</tbody>
</table>

Railroad Rates

It has been accepted that in nearly all cases the Summer

.

Page seven
General Convention Committee

C. E. Sisson .................................. Chairman
A. H. Hooff .................................. Vice-Chairman
W. L. Aron .................................. Secretary
A. F. Kelliston ................................ Meetings and Papers
W. P. Dobson, Local Representative ........ Meetings and Papers
W. R. Koonschoven .......................... Sections
W. A. Sloote ................................. Finance
H. U. Hart .................................. Finance
F. R. Tauro ................................. Publicity
A. B. Cooper ................................. Entertainments
R. G. Don Carlos ................................ Spets
J. P. Noll .................................. Transportation
M. B. Hastings ................................ Tours
F. F. Aschel ................................ Hotel and Registration
H. G. Purser .................................. Ladies

W. C. Adams J. A. Johnston,
G. V. Chiere M. Miliken
J. L. Clarke J. Moore
J. R. Onley W. F. McKnight
E. F. Farnham J. Treadwell
J. B. Woodbury

Endorsed by the
American Institute of Electrical Engineers
33 West 39th Street
New York, N. Y.