

AMERICAN INSTITUTE OF
ELECTRICAL ENGINEERS

1884



1933

SUMMER CONVENTION

Engineers' Week
and
World's Fair



Headquarters—Edgewater Beach Hotel

PROGRAM

Chicago, Ill.
June 26-30
1933

PROGRAM of the SUMMER CONVENT

Monday, June 26

9:00 a.m.—Registration

10:00 a.m.—Opening Session

Annual Business Meeting of the Institute

Annual Report of the Board of Directors (in abstract)

H. H. HENLINE, National Secretary

Report of Tellers' Committee on election of officers; introduction of and response from president-elect

Presentation of prizes for papers

Lamme Medal presentation

President's Address, by H. P. CHARLESWORTH

2:00 p.m.—Conference of Officers, Delegates, and Members; Qualifying Round for Mershon Golf Trophy; Opening of Tennis Tournament for Mershon Trophy; Ping Pong Tournament

Tuesday, June 27

9:30 a.m.—(A) Protective Devices

R. T. HENRY, *Chairman*

Testing of High Speed Distance Relays

E. E. GEORGE, Tennessee Electric Power Co.

Relaying of High Voltage Interconnection Transmission Lines

H. P. SLEEPER, Public Service Electric & Gas Co.

Interrupting Capacity Tests on Circuit Breakers

R. M. SPURCK and W. F. SKEATS, General Electric Co.

Arc Extinction Phenomena in High Voltage Circuit Breakers Studied with a Cathode Ray Oscillograph

R. C. VAN SICKLE and W. E. BERKEY, Westinghouse Electric & Mfg. Co.

Present Practice on Installation and Performance of High Voltage Lightning Arresters for 11 Kv. and Above

A.I.E.E. Subcommittee on Lightning Arresters and (N.E.L.A.)
Subject Committee on Lightning Arresters

A Compression Type Low-Voltage Air Circuit Breaker

D. C. PRINCE, General Electric Co.

9:30 a.m.—(B) Instruments and Measurements

E. J. RUTAN, *Chairman*

Compensating Metering in Theory and Practice

G. B. SCHLEICHER, Philadelphia Electric Co.

Classification of Bridge Methods of Measuring Impedances

J. G. FERGUSON, Bell Telephone Laboratories, Inc.

Better Instrument Springs

R. W. CARSON, Westinghouse Electric & Mfg. Co.

A Portable Oscillograph with Unique Features

K. A. OPLINGER, Westinghouse Electric & Mfg. Co.

Address—Recent Developments in Sound Measurement

H. B. MARVIN, General Electric Co.

2:00 p.m.—Conference of Officers, Delegates, and Members; Eliminations for Mershon Golf and Tennis Trophies

8:30 p.m.—Joint Meeting with Section M (Engineering) of the American Association for the Advancement of Science

(Grand Ballroom of the Palmer House)

Address—"Engineering Developments of the Past One Hundred Years," by A. P. M. FLEMING, Metropolitan-Vickers Electrical Co., Ltd.

Wednesday, June 28

ENGINEERS' DAY

10:30 a.m.—Joint Meeting with a number of engineering societies convenes at Soldiers Field

**Presentation of Daniel Guggenheim Medal to
Juan de la Cierva**

*Presiding: A. A. POTTER, President
American Society of Mechanical Engineers*

*The Medal and Introduction of Harold F. Pitcairn
President A. A. POTTER*

*Achievements of the Medalist
HAROLD F. PITCAIRN*

*Presentation of the Medal and Certificate
Chairman of the Daniel Guggenheim Medal Board of Award*

*Response by the Medalist
JUAN DE LA CIERVA*

**1:30 p.m.—Conducted Tours; Eliminations for Mershon Golf
and Tennis Trophies**

**7:00 p.m.—Dinner at the Stevens Hotel, followed by danc-
ing—admission \$5**

Thursday, June 29

9:30 a.m.—(C) Power Transmission and Distribution

P. H. CHASE, Chairman

The Expulsion Protective Gap

*K. B. McEACHRON, General Electric Co.
I. W. GROSS, American Gas and Electric Co.
H. L. MELVIN, Electric Bond and Share Co.*

The "De-Ion" Flashover Protector and Its Application to Trans-
mission Lines

A. M. OPSAHL and J. J. TOROK, Westinghouse Electric & Mfg. Co.

The Life of Impregnated Paper

J. B. WHITEHEAD, The Johns Hopkins University

Accelerated Aging Tests on High-Voltage Cable, and Their Correla-
tion with Service Records

D. W. ROPER, Commonwealth Edison Co.

The Effect of High Oil Pressure upon the Electrical Strength of Cable
Insulation

J. A. SCOTT, General Electric Co.

A New Method of Investigating Cable Deterioration and Its Applica-
tion to Service Aged Cable

*K. S. WYATT, E. W. SPRING, and C. H. FELLOWS, The Detroit
Edison Co.*

9:30 a.m.—(D) Communication and Power Generation

H. S. OSBORNE and J. R. BAKER, Chairmen

Carrier in Cable

*A. B. CLARK, American Telephone and Telegraph Co.
B. W. KENDALL, Bell Telephone Laboratories, Inc.*

Precision Timing of Athletic and Other Sporting Events

*C. H. FETTER, Electrical Research Products
H. M. STOLLER, Bell Telephone Laboratories, Inc.*

Design Features of the Port Washington Power Plant

G. G. POST, The Milwaukee Electric Railway and Light Co.

The Beauharnois Development of the Soulanges Section of the St.
Lawrence River

W. S. LEE, W. S. Lee Engineering Corp.

Improvements at Burlington Generating Station

*W. L. CISLER, Public Service Electric & Gas Co.
W. P. GAVIT, United Engineers & Constructors, Inc.*

**9:30 a.m.—Semi-Finals for Mershon Golf and Tennis
Trophies**

2:00 p.m.—Finals for the Mershon Golf and Tennis Trophies

**2:15 p.m.—Joint Meeting with the Power Division, A.S.M.E.,
and the Hydraulics Division, A.S.C.E.**

(Grand Ball Room of the Palmer House)

Resume of the Engineering Reports on the St. Lawrence Power
Development

*DANIEL W. MEAD, University of Wisconsin; Consulting Engineer,
Madison, Wis.*

3:15 p.m.—Discussion opened by

THOMAS H. HOGG, Hydro-Electric Power Commission of Ontario

7:00 p.m.—Informal Dinner-Dance

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Friday, June 30

9:30 a.m.—(E) Electrophysics and Related Subjects

V. BUSH, *Chairman*

Progress in Three-Circuit Theory

A. BOYAJIAN, General Electric Co.

The Polarity Factor in the Kindling of Electric Impulse Sparkover Based on Lichtenberg Figures

C. E. MAGNUSSON, University of Washington

Obtaining Comfort Conditions by Means of Controlled Radiation from Electrically-Heated Walls

L. W. SCHAD, Westinghouse Electric & Mfg. Co.

Probe Measurements and Potential Distribution in Copper A-C Arcs

W. G. DOW, S. S. ATTWOOD and G. S. TIMOSHENKO, University of Michigan

Theory of Primary Networks

F. M. STARR, General Electric Co.

9:30 a.m.—(F) Electrical Machinery and Welding

S. L. HENDERSON and K. L. HANSEN, *Chairmen*

Transient Torques in Synchronous Machines

M. STONE and L. A. KILGORE, Westinghouse Electric & Mfg. Co.

The Effect of Transient Voltage Protective Devices on Stresses in Power Transformers

K. K. PALUEFF and J. H. HAGENGUTH, General Electric Co.

Improvements in Mercury Arc Rectifiers

J. H. COX, Westinghouse Electric & Mfg. Co.

Current and Voltage Wave Shape of Mercury Arc Rectifiers

H. D. BROWN and J. J. SMITH, General Electric Co.

Arc Stability with D-C Welding Generators

L. R. LUDWIG and D. SILVERMAN, Westinghouse Electric & Mfg. Co.

Construction Features of Special Resistance Welding Machines

C. L. PFEIFFER, Western Electric Co.

2:00 p.m.—Joint Meeting with the Econometric Society, A.S.M.E. and A.S.T.M.

(Palmer House)

Some Fundamental Problems of Mutual Interest to Scientific Economists and Engineers

Chairman, IRVING FISHER, Yale University; *President*, Econometric Society

Contributions of the Mathematician to Economics

C. F. ROOS, *Secretary*, Econometric Society

Discussion by

HENRY SCHULTS, University of Chicago

The Mathematical Theory of Rational Inference

T. C. FRY, Bell Telephone Laboratories, Inc.

Discussion by

HAROLD HOTELLING, Columbia University

L. K. SILLCOX, New York Air Brake Co.

ANSON HAYES, American Rolling Mill Co.

The Engineering Economist of the Future

D. S. KIMBALL, Cornell University

Discussion by

HARVEY N. DAVIS, Stevens Institute of Technology

C. F. HIRSHFELD, Detroit Edison Co.

8:00 p.m.—Meeting continued

Chairman, RALPH E. FLANDERS, Chairman of Committee on Relation of Consumption, Production and Distribution of the American Engineering Council

Some Fundamental Problems of the Engineer

F. B. JEWETT, American Telephone & Telegraph Co.

The Internationalization of Scientific Knowledge As a Factor in World Economic Recovery

A. P. M. FLEMING, Metropolitan-Vickers Electrical Co., Ltd.

Summer Convention Program

LADIES' ENTERTAINMENT will consist of a circle tour of the parks and boulevards of the city on Tuesday afternoon, for which a charge of 75 cents will be made. For those taking this trip a complimentary luncheon will be given at 12:30 p.m. at one of the clubs through the courtesy of a local member.

Committee members will give the visiting ladies advice and information on shopping tours.

SPORTS comprise tournaments in golf, tennis, and ping pong. The golf events will be held at the Westmoreland Country Club, June 26-29.

The qualifying round for the Mershon Trophy, a match play tournament on a handicap basis, will be held on Monday, June 26, the 16 lowest net scores to qualify for match play. The Monday scores will also apply as the first round on the Lee Trophy, which is a 36-hole low net score tournament. The second round is to be played on Tuesday afternoon. It is also planned to have a low net, low gross, and blind bogey event on Monday, and a low gross and low net event on Tuesday.

In addition golf will include play for the District Team Championship. Teams will consist of not more than six, nor less than four men. Winner will show lowest gross score for four men. If any district has not sufficient golfers present to make up a four-man team players may be recruited from other districts.

The annual tennis tournament for the Mershon Trophy, a men's single event, will be held on the courts of the Edgewater Beach Hotel. Matches will start Monday afternoon, June 26. There will be no charge for the use of the courts.

The ping pong tournament will be held at the Edgewater Beach Hotel, starting Monday afternoon, June 26. Prizes will be awarded for all of the sports events.

TRIPS on Wednesday, June 28, will be conducted to some of the exhibits which are of particular interest to electrical engineers.

Anyone wishing to visit electrical installations in the vicinity of Chicago, as well as other points of interest, should get in touch with the representative of the trips committee at the registration desk. Special facilities for transportation of groups to and from the exposition grounds can also be arranged.

H. H. HENLINE,
National Secretary



Summer Convention Program

HOTEL RATES are given in the accompanying table, including the rates of the headquarters hotel, the Edgewater Beach, and the several other hotels in the vicinity. Reservations should be made by writing directly to the hotel preferred. Reservations at the Edgewater Beach should be made well in advance as the accommodations are liable to be taxed during the convention on account of the World's Fair.

Hotel	Single Room With Bath	Double Room With Bath	Distance From Headquarters Hotel
Edgewater Beach	\$5.00 (Special convention rates)	\$7.00	Convention headquarters
Rogers Park	\$3.00	\$5.00	1 1/4 miles
Sheridan Plaza	\$2.50	\$4.00	1 1/4 miles
Sovereign	\$3.00 to \$5.00	\$4.00 to \$6.00	1 1/4 miles

RAILROAD RATES which are especially low for the entire period of the Century of Progress Exposition will be in effect. They differ considerably for different starting points, the duration of the stopover period, and the routes traversed. By the certificate plan which is also in effect, the round-trip fare is one and one-third times the one-way fare. This plan is dependent upon 100 certificates being turned in for validation. When purchasing a one-way ticket under this plan be sure to ask for a certificate (not a receipt).

From certain localities it may prove advantageous to form parties to take advantage of the low party rates in effect. Also those who can arrange to leave on Saturday from some points may find that exceptionally low rates are in effect for that day.

In all cases consult local passenger agents for best rates to the Exposition.

REGISTER IN ADVANCE by filling in and mailing the ADVANCE REGISTRATION CARD as soon as possible. On arrival at the convention register at the registration desk, deposit your railroad certificate for validation, and receive your badge.

COMMITTEES

General Convention Committee

L. A. Ferguson, *Honorary Chairman*
 H. B. Gear, *Chairman*
 T. G. LeClair, *Secretary-Treasurer*

K. A. Auty
 W. H. Harrison
 P. B. Juhnke

J. E. Kearns
 W. O. Kurtz
 L. R. Mapes

Subcommittee Chairmen

Meetings and Papers Burke Smith
 Inspection Trips E. C. Williams
 Entertainment H. W. Eales
 Sports J. H. Irwin
 Transportation R. I. Parker
 Hotels and Registration J. E. Kearns
 Publicity F. R. Innes
 Finance F. H. Lane
 Ladies' Entertainment Mrs. C. W. Pen Dell