

# American Institute of Electrical Engineers

1884



1929

## Summer Convention

to be held at

SWAMPSCOTT, MASS.

June 24-28

1929

A DELIGHTFUL place for a convention and very excellent technical and entertainment programs will be combined in the 1929 Summer Convention. Swampscott is an ideal location combining shore and country, opportunity for sports and proximity to a large city and many en-

gineering activities. The technical program will be most profitable to electrical engineers in many lines of the profession. Entertainment of most attractive nature has been arranged. Ladies are especially invited and extensive plans have been arranged for their pleasure.

MAKE RESERVATIONS NOW!



Convention Headquarters—New Ocean House

# THE 1929 SUMMER CONVENTION

EXCELLENT TECHNICAL PROGRAM AND DELIGHTFUL RECREATION  
PLANNED FOR MEETING AT SWAMPSCOTT, JUNE 24-28



PROGRAM crowded with pleasurable and profitable offerings is being arranged for the 1929 A. I. E. E. Summer Convention which will be held, with headquarters in the New Ocean House at Swampscott, Mass., June 24 to 28. All features have been considered which might make an enjoyable and worthwhile convention.

A selection of particularly high-grade technical papers has been made. These will deal with very live topics such as distribution systems synchronized at the load, automatic synchronizing, communication, electrical transportation, electrical machinery, outdoor hydrogen-ventilated synchronous condensers, loading transformers according to temperature, shielding in electrical measurements, electrical heating elements, high-frequency electrical tools, etc. The titles of the individual papers are given elsewhere in this announcement.

Reviews of developments in all electrical fields will be presented in the annual reports of the Technical Committees of the Institute.

No locality is richer in opportunity for trips of engineering, scenic and historic interest. A large number of trips have been arranged.

For the recreational side of the program, a most enthusiastic local Convention Committee is planning many enjoyable events. Swampscott is an ideal place for a convention, combining seashore

and country with excellent hotel facilities. Those who attended the 1923 Summer Convention at Swampscott remember the very enjoyable and successful meeting held at that time and it may be prophesied that the coming meeting will be equally as good.

Golf and tennis, a reception, a banquet, dancing, and card playing will be some of the entertainment features. More information, particularly on the golf tournament, is given in later paragraphs.

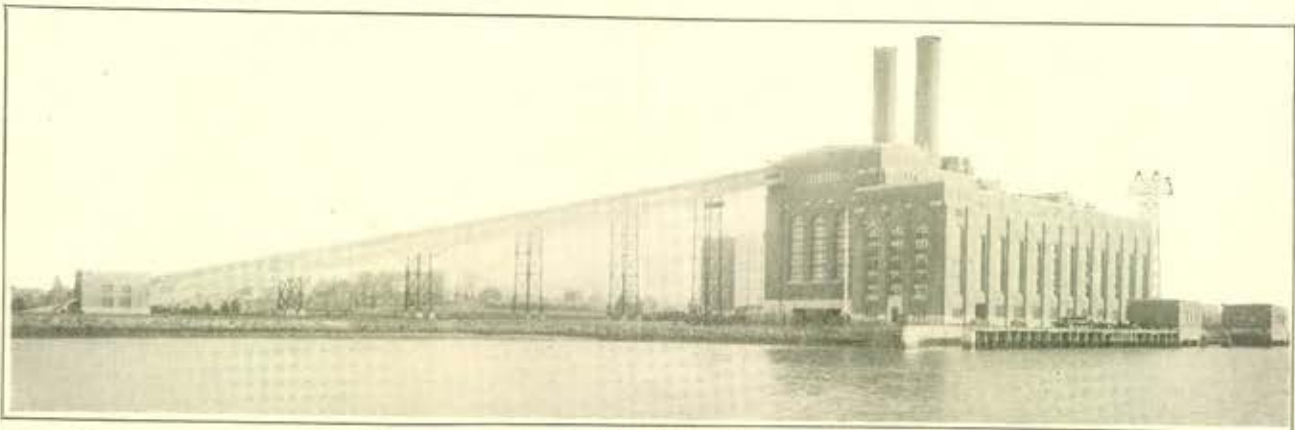
For the ladies who attend the meeting a special program has been arranged in addition to the many features on the regular program which they will enjoy.

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 1928-1929, the address of the President and presentation of prizes for papers.

The first Lamme Medal, which was awarded some months ago, will be presented to the medalist, Mr. A. B. Field of England.

There will be a lecture on the evening of June 25, by Dr. Harlowe Shapley; also several addresses at the banquet on June 26.

As customary at Summer Conventions, the first day will be devoted to conferences of Institute officers and delegates held under the auspices of the Committees on Sections and Branches. All members are invited to these conferences.



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# OUTLINE OF PROGRAM

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(Eastern daylight-saving time is indicated throughout this program)

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## Monday, June 24

- 9:00 a.m. Registration
- 10:00 a.m. Conference of Officers and Section Delegates
- 12:30 a.m. Section and Branch Delegates Luncheon
- 2:00 p.m. Officers and Delegates Conference (continued)
- 2:00 p.m. Sports as scheduled
- 2:00 p.m. Inspection trips
- 4:00 p.m. Branch Delegates Meeting
- 4:30 p.m. Afternoon tea
- 8:00 p.m. Informal dancing, cards

## Tuesday, June 25

- 9:00 a.m. Registration
- 9:00 a.m. Annual Business Meeting  
Address of Welcome  
Report of Board of Directors (in abstract)  
Report of Tellers; Introduction of, and response from, the President-Elect  
Presentation of Prizes for Papers  
President's Address
- 10:30 a.m. Two Technical Sessions, (a) Distribution and Power Plants; (b) Transportation
- 2:00 p.m. Trips as scheduled
- 2:00 p.m. Sports as scheduled
- 2:30 p.m. Board of Directors' Meeting
- 4:30 p.m. Afternoon tea
- 8:00 p.m. Convention Lecture—Prof. Harlowe Shapley of Harvard
- 9:15 p.m. Reception—dancing, cards

## Wednesday, June 26

- 9:00 a.m. Social hour
- 9:30 a.m. Technical Committee Reports—2 Parallel sessions
- 2:00 p.m. Technical Session (miscellaneous subjects)
- 2:00 p.m. Trips as scheduled
- 2:00 p.m. Sports as scheduled
- 4:30 p.m. Afternoon tea
- 7:00 p.m. Convention Banquet  
Presentation of Lamme Medal. Speakers, entertainment  
Dancing, cards

## Thursday, June 27

- 9:00 a.m. All-day Trip to Rye Beach, Maine
- 9:30 a.m. Sports as scheduled
- 2:00 p.m. Final round, Mershon Cup play
- 4:30 p.m. Afternoon tea
- 8:30 p.m. Presentation of sports prizes, entertainment, dancing, cards

## Friday, June 28

- 9:00 a.m. Social hour
- 9:30 a.m. Technical Sessions (a) Electrical Machinery, (b) Shielding in Electrical Measurements
- 2:00 p.m. Trips as scheduled
- 2:00 p.m. Sports as scheduled
- 3:00 p.m. Start of Post-Convention Excursion through White Mountains
- 4:30 p.m. Afternoon tea
- 8:00 p.m. Informal dancing, cards

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## LADIES' PROGRAM

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

### Monday, June 24

- 2:00 p.m. Putting Contest at New Ocean House—*or*
- 2:00 p.m. Drive to Boston Art Museum
- 4:30 p.m. Afternoon Tea
- 8:00 p.m. Informal Reception
- 8:30 p.m. Dancing, cards

### Tuesday, June 25

- 10:00 a.m. Drive to points of historical interest in Boston, thence to Wayside Inn, Sudbury
- 1:00 p.m. Luncheon at Wayside Inn, return trip through Lexington and Concord
- 4:30 p.m. Afternoon Tea
- 8:00 p.m. Lecture—Prof. Harlowe Shapley
- 9:15 p.m. Reception—dancing, cards

### Wednesday, June 26

- 10:00 a.m. Drive to Salem and Marblehead, with visits to Old Witch House and House of Seven Gables
- 2:30 p.m. Bridge at New Ocean House
- 7:00 p.m. Banquet  
Presentation of Lamme Medal  
Entertainment  
Dancing, cards

### Thursday, June 27

- 9:00 a.m. All-day trip to Rye Beach
- 8:30 p.m. Presentation of sports prizes, entertainment, dancing, cards

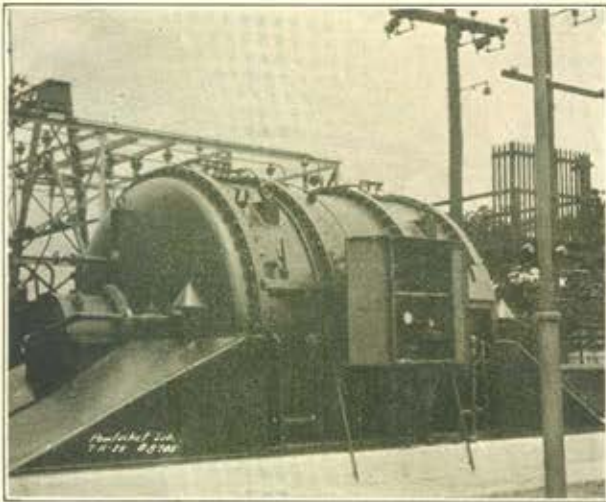
### Friday, June 28

- 2:00 p.m. Drive to Plymouth
- 3:00 p.m. Start of Tour through White Mountains
- 4:30 p.m. Afternoon Tea
- 8:00 p.m. Dancing, cards

The golf links of the New Ocean House will be open to the ladies and a tournament will be arranged if enough signify their intention to enter.

There will also be opportunity for tennis.

# TECHNICAL SESSIONS



Outdoor Hydrogen-Ventilated Synchronous Condenser  
of New England Power Association

## Distribution and Power Generation

10:30 a.m. June 25

Symposium on "Synchronized at the Load"

### I. A Fundamental Plan of Power Supply

A. H. Kehoe  
United Electric Light & Power Co.

### II. Calculations of System Performance

S. B. Griscom  
Westinghouse Electric & Mfg. Co.

### III. System Tests and Operating Connections

H. R. Searing and G. R. Milne  
United Electric Light & Power Co.

Automatic Transformer Substations of Edison Electric  
Illuminating Co. of Boston

W. W. Edson  
Edison Elec. Ill. Co. of Boston

Rehabilitation and Rebuilding of Steam Power Plants

C. F. Hirschfeld  
Detroit Edison Co.

Application of Induction Regulators to Distribution  
Networks

E. R. Wolfert and T. J. Brosnan  
Westinghouse Electric & Mfg. Co.

## Transportation

10:30 a.m. June 25

Electrification of the Mexican Railway

J. B. Cox  
General Electric Co.  
Cincinnati, Ohio

Contact-Wire Wear on Electric Railroads

I. T. Landhy  
Illinois Central Railroad Co.

An Electrified Railroad Substation

J. V. B. Duer  
Pennsylvania Railroad

D-C. Railroad Substations

A. M. Garrett  
Commonwealth Edison Co.

## Technical Committee Reports

9:30 a.m. June 26

The reports of the Technical Committees as shown below  
will be presented in two parallel sessions.

AUTOMATIC STATIONS, W. H. Millan, *Chairman*

COMMUNICATION, H. W. Drake, *Chairman*

EDUCATION, Edward Bennett, *Chairman*

ELECTRICAL MACHINERY, W. J. Foster, *Chairman*

ELECTRIC WELDING, A. M. Candy, *Chairman*

ELECTROCHEMISTRY AND ELECTROMETALLURGY, George  
W. Vinal, *Chairman*

ELECTROPHYSICS, V. Karapetoff, *Chairman*

GENERAL POWER APPLICATIONS, J. F. Gaskill, *Chairman*

INSTRUMENTS AND MEASUREMENTS, Everett S. Lee,  
*Chairman*

APPLICATIONS TO IRON AND STEEL PRODUCTION, M. M.  
Fowler, *Chairman*

PRODUCTION AND APPLICATION OF LIGHT, B. E.  
Shackelford, *Chairman*

APPLICATIONS TO MARINE WORK, W. E. Thau,  
*Chairman*

APPLICATIONS TO MINING WORK, Carl Lee, *Chairman*

POWER GENERATION, F. A. Allner, *Chairman*

POWER TRANSMISSION AND DISTRIBUTION, H. R.  
Woodrow, *Chairman*

PROTECTIVE DEVICES, E. A. Hester, *Chairman*

RESEARCH, F. W. Peek, Jr., *Chairman*

TRANSPORTATION, W. M. Vandersluis, *Chairman*



# TECHNICAL SESSIONS

## Miscellaneous

2:00 p.m. June 26

### Master Reference System for Telephone Transmission

W. H. Martin  
American Tel. & Tel. Co.  
and C. H. G. Gray  
Bell Telephone Laboratories, Inc.

### Electrical Wave Analyzers for Power and Telephone Systems

R. G. McCurdy and P. W. Blye  
American Tel. & Tel. Co.

### A New Automatic Synchronizer

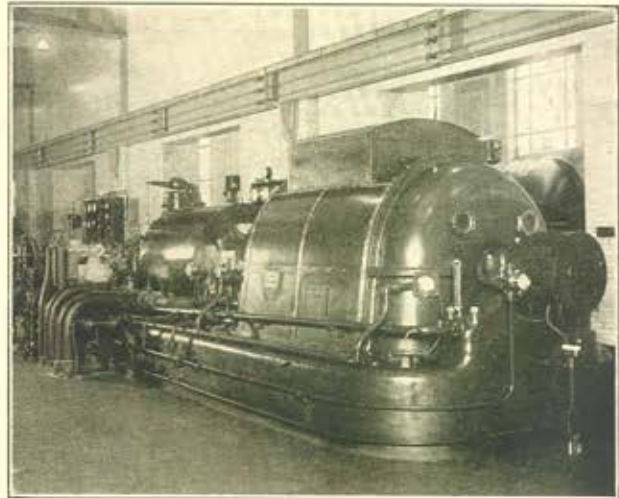
F. H. Gulliksen  
Westinghouse Electric & Mfg. Co.

### High-Frequency Portable Electric Tools

C. B. Coates  
Chicago Pneumatic Tool Co.

### Design of Electric Heating Elements

Edwin Fleischmann  
The Niagara Falls Power Co.



A 1200-lb. Turbo-Generator in Edgar Station

## Electrical Machinery

9:30 a.m. June 28

### Safe Loading of Oil-Immersed Transformers

E. T. Norris  
Ferranti, Limited

### Induction Motor Operation with Non-Sinusoidal Impressed Voltages

L. A. Doggett and E. R. Queer  
Pennsylvania State College

### Outdoor Hydrogen-Ventilated Synchronous Condensers

R. W. Wieseman  
General Electric Co.

### Short-Circuit Torque in Synchronous Machines Without Damper Windings

G. W. Penney  
Westinghouse Elec. & Mfg. Co.

### Analytical Determination of Magnetic Fields

B. L. Robertson  
Pennsylvania State College  
I. A. Terry  
General Electric Co.

## Symposium on Shielding in Electrical Measurements

9:30 a.m. June 28

### 1. Shielding and Guarding Electrical Measuring Apparatus

H. L. Curtis  
Bureau of Standards

### 2. Some Problems in Dielectric Loss Measurements

C. L. Dawes, P. L. Hoover and H. H. Reichard  
Harvard University  
Cambridge, Mass.

### 3. Shielding in High-Frequency Measurements

J. G. Ferguson  
Bell Telephone Laboratories

### 4. Shielding of Cables in Dielectric Loss Measurements

E. H. Salter  
Elec. Testing Laboratories

### 5. Precautions against Stray Magnetic Fields in Measurements with Large Alternating Currents

F. B. Silsbee  
Bureau of Standards

### 6. Magnetic Shielding in Electrical Measurements

S. L. Gokhale  
General Electric Co.



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# T R I P S

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THE trips which may be taken are given below. Two special trips are being featured, one an all day trip and outing to Rye Beach, Maine, and the other a post-convention tour through the White Mountains.

The all day outing will be taken on Thursday, June 27, and will prove a most acceptable opportunity for making friends and enjoying the entertainment which will be provided.

The post-convention tour will start on Friday afternoon, June 28, and will end at Greenfield, Mass., or Boston on Monday, July 3. The trip will be through New Hampshire, Maine and Massachusetts and will take in many beautiful lake and mountain scenes. The complete cost will be \$48.50, with return to Greenfield, and \$54, with return to Boston. This includes all transportation and hotels (double rooms).

The following is a list of all trips. Information on the dates when these may be taken will be available at the convention.

## All-Day Outing at Rye Beach, Maine June 27

### Trips to Colleges

Massachusetts Institute of Technology, Cambridge  
Harvard University, Cambridge  
Tufts College, Medford

### Historical and Scenic Trips

Concord and Lexington, and Wayside Inn, Sudbury  
Historical excursion of Boston, Salem—including Old Witch House, the House of Seven Gables and Marblehead  
Plymouth  
Haverhill (Whittier's House)  
Arnold Arboretum

### Post-Convention Tour through White Mountains

### Trips to Power Plants, Substations, Telephone Plants, etc.

Edgar Station, E. E. I. Co. of Boston, North Weymouth  
Montaup Station, Fall River  
Dupont Station and A-C. Network, Brockton  
Automatic D-C. substation, E. E. I. Co. of Boston, Cambridge Street, Boston  
Automatic substations of Boston Elevated Railway Company  
Automatic A-C. Substation of the E. E. I. Co. of Boston, Arlington, and automatic substations of Malden Electric Company, Medford  
"Resonant-Control" Street-Lighting System, E. E. I. Co.  
Electrification of Boston, Revere Beach, and Lynn R. R.  
Service Buildings of E. E. I. Co. of Boston, Roxbury  
Automatic telephone stations in Boston and suburbs

### Trips to Manufacturing Plants

General Electric Works, Lynn  
Navy Yard, Dry Dock and Ship Yards  
Gillette Safety Razor Company, Boston  
United Shoe Machinery Company, Beverly  
Condit Electrical and Manufacturing Co., Hyde Park  
Simplex Wire & Cable Company, Cambridge  
First National Stores, Somerville  
New North Station Refrigerating Plant & Gardens, Boston  
Champion Lamp Works of General Electric Company, Lynn  
Brown & Sharpe Company, Providence, R. I.  
New England Confectionery Company, Cambridge  
B. F. Sturtevant, Hyde Park  
United Drug Company, Boston  
Hood Rubber Company, Watertown  
Hi-grade Lamp Company, Salem  
Lever Bros, Cambridge  
Naumkeag Mills, Salem  
Watertown Arsenal, Watertown  
Dennison Manufacturing Company, Framingham  
Ford Assembling Plant, Somerville  
Keith Shoe Company, Brockton

### Airplane Trip

Planes of the amphibian type will be available for those who wish to take a trip in the air.



Chimney Pond, Mount Katahdin, Maine  
Copyright by W. F. Dawson

## SPORTS

Golf, tennis, swimming, fishing and boating will be available for those who wish to enjoy them.

Both golf and tennis tournaments will be played for the respective Mershon Cups. It is proposed to present the prizes on Thursday evening and in order to accomplish this purpose all competition must be completed before Thursday evening.

On account of the limited time and as the golf competition will be match play, the following information on the golf tournament is given. Special note should be taken of the possibility of playing the qualification round at 8:00 a.m. or 10:00 a.m. Monday morning.

The golf competition will consist of a qualification round (handicap medal play) of eighteen holes followed by match play (handicap).

The qualification round will be played on Monday only, June 24, 1929. The sixteen low net scores will qualify for the match-play rounds. No green fee will be charged members and registered guests.

A representative of the Committee will be at the Club House at eight a.m., Monday, June 24, so that officers, section delegates, etc., who wish may play their qualification round early and still not miss their scheduled meetings. Also those who are not attending the conference may play at 10 a.m. on Monday morning.

In order to avoid conflict with business meetings and technical sessions it is the wish of the Committee that play be restricted to the time of scheduled events, namely: Monday a.m. and p.m., Tuesday p.m., Wednesday p.m., and Thursday a.m. and p.m.

## HOTELS

The following gives information on hotels. Reservations should be made by communicating directly with the hotel selected.

The New Ocean House will be the center of Convention activities. Most of the rooms are double rooms with bath and it is suggested that, as far as possible, members should request reservations in parties of two, since some of the single reservations will have to be sent to the Hotel Preston. Some of the most desirable rooms situated on the ocean side are for three, four or five persons, so that members who make up a congenial party and apply for such a suite, will be assured of desirable rooms. Members who plan to come alone and who signify on their request for reservations that they will share a double room with another member will in general get a more desirable room than if a single room were engaged.

### NEW OCEAN HOUSE Swampscott, Mass.

Daily rates per person for room and meals

Room	Number of Persons (Beds)	With Bath	With Running Water
Single .....	1	\$9-\$10	\$8-\$9
Double .....	2	\$8-\$9	\$7
Double .....	3	\$7	\$6.50
Large .....	4	\$6.50	.....
Two* .....	4	\$7.50	.....
Two* .....	5	\$7	.....
Two* .....	6	\$6.50	.....

\*Suite of two rooms with bath between.

Rates for Meals only—For non-resident guests, combination tickets for meals taken in one day will be issued as follows:

	In Main Dining Room	In Tea Room
Breakfast, Luncheon and Dinner.....	\$5.00	.....
Both Luncheon and Dinner.....	4.00	\$2.50
Dinner .....	3.00	1.50
Luncheon .....	3.00	1.00

These rates include the Convention Banquet.

Garage space in concrete fireproof garage, \$1.00 per day

### Other Nearby Hotels

There will be free bus or auto service between the New Ocean House and the following hotels:

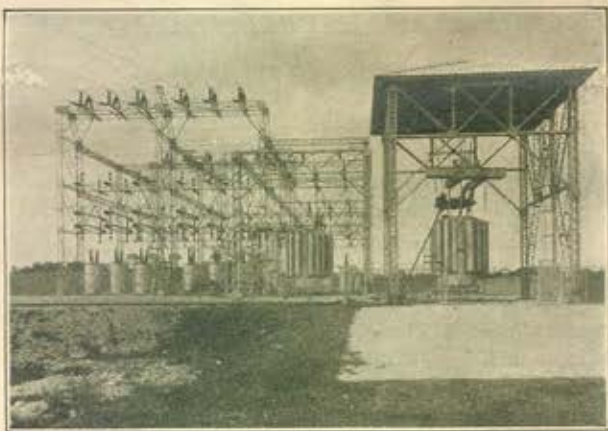
HOTEL PRESCOTT, Beach Bluff, Mass., two miles from New Ocean House, rates same as New Ocean House.

BELLEVUE HOTEL, Beach Bluff, Mass., one mile from New Ocean House. Rates per person (including breakfast), single room \$5.00; double \$3.50.

DEER COVE INN, Swampscott, \$5 per person with meals.

THE ARKHAVEN, Swampscott, Rates with meals \$5-\$9 without bath; \$6-\$11 with bath.

THE PRISCILLA, Swampscott, Rates \$2; no meals.



Walpole Ring Station of Boston Edison Co.

### Reduced Railroad Rates

Reduced railroad rates on the certificate plan will be available for those attending the meeting from practically all points. Also summer tourist fares at a lower rate will be in effect from certain Western States.

By the CERTIFICATE PLAN the round trip will cost only one and a half times the one-way fare, provided 150 certificates are deposited at the Convention headquarters. These certificates must be obtained when visitors purchase their one-way tickets to Swampscott. Members of families are also entitled to obtain certificates. After 150 certificates have been deposited and the certificates have been validated, return tickets over the same route may be purchased for half the usual rate. There are certain restrictions regarding purchase dates, travel dates, etc., and local ticket agents should be consulted in every case.

EVERYONE traveling by train to Swampscott SHOULD GET A CERTIFICATE whether he will use it or not. Failure to do so may deprive others of considerable saving. The form accompanying this announcement may be presented to the local ticket agent to make it easier to obtain a certificate.



The Surf at Swampscott

### Register in Advance

By registering in advance by mail, members will help the committees in making plans. The attached registration card may be used for this purpose.

### Committees

The 1929 Summer Convention Committee which is making the arrangements for the meeting consists of the following members who are officers of the committee or chairmen of other committees as indicated or general members: W. F. Dawson, *Chairman*; E. W. Davis, *Vice-Chairman*; H. B. Dwight, *Vice-Chairman*; C. S. Skoglund, *Vice-Chairman*; W. H. Colburn, *Secretary*; V. R. Holmgren, *Asst. Secretary*; F. L. Ball, *Treasurer*; H. P. Charlesworth, *Meetings and Papers*; W. B. Kouwenhoven, *Sections*; C. L. Edgar, *Finance*; C. A. Corney, *Trips*; F. S. Jones, *Transportation*; I. F. Kinnard, *Publicity*; W. E. Porter, *Hotel and Registration*; A. H. Sweetman, *Sports*; Mrs. W. H. Timbie, *Ladies' Committee*; J. P. Alexander, G. J. Crowdes, W. S. Edsall, S. J. Eynon, J. W. Kidder, R. G. Porter, W. H. Pratt, Ernest Shorrock, D. F. Smalley, H. B. Wood.

F. L. HUTCHINSON,  
*National Secretary*

American Institute of Electrical Engineers  
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