A feature of the convention will be the addresses by prominent executives on the organization and management of large-scale engineering work. Whether in the fields of communication, electrical manufacturing, or light and power the splendid service rendered is attained only by the carefully guided efforts and cooperation of many individuals working together in smooth functioning units. The Institute is fortunate to have this story told by three prominent executives of long experience: M. R. Sullivan, vice-president, operating and engineering department, American Telephone and Telegraph Company; R. C. Muir, vice-president, General Electric Company; and H. B. Gear, vice-president in charge of operating and engineering, Commonwealth Edison Company. With the activity resulting from the war effort an Institute session devoted to the consideration of questions relating to executive management is especially timely. The period for questions and discussion following the addresses provides an initial opportunity for greater participation by members who are more concerned with management and policies than purely technical matters. The general session will be held on Thursday morning, June 25.
ADVANCE COPIES OF PAPERS
Preprints of technical papers may be obtained by mail by remitting price indicated to the AIEE Order Department, 33 West 39th Street, New York, N.Y.; or if purchased at AIEE headquarters at the convention 5c less per copy. For convenience an order form is enclosed. Only numbered papers (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 $5.00 denominations are available for those who wish to avoid remittance by check or otherwise. Most of the papers ultimately will be published in ELECTRICAL ENGINEERING or TRANSACTIONS.

Monday, June 22

9:00 a.m.—Registration—FRENCH ROOM—

10:00 a.m.—Annual Meeting—BALL ROOM—
Address of Welcome, H. R. Gear, Convention Chairman
Address, “Democracy in Its Struggle Looks to the Engineer,” D. D. Ewing, Head of School of Electrical Engineering, Purdue University
PRESIDENT DAVID C. PRINCE, Presiding
Board of Directors’ Report (in abstract)
H. H. Heine, National Secretary
National Treasurer’s Report, W. I. Slichter
Committee of Tellers Report on Election of Officers
Presentation of President’s Badge and Response from
President-elect Harold S. Osborne
Presentation of Prizes for Papers
Presentation of Lamme Medal to Forrest E. Ricketts
President’s Address

12:00 m.—Luncheon Conference of Branch Counselors—Room C—

2:00 p.m.—Conference on Local Engineering Councils—Room C—
This conference is intended to inspire engineers to cooperate with fellow engineers in other branches of the profession and to take a greater part in community civic affairs. Much may be done in the way of appraising local situations, initiating worthwhile projects, and promoting long-range planning during the war and postwar period. It is believed engineers are in a position to render very important public service.


2:00 p.m.—Power Generation Session and Conference—BALL ROOM—
Address, “Power Supply for the War Program,” J. E. Moore, War Production Board
Address, “Power Supply for the War Program,” E. F. E. Crippen, War Production Board
*CP. “Power Facilities and Problems in South America.”
R. P. Crippen, Ebasco Services, Inc.

2:00 p.m.—Conference on Lighting Aids to Wartime Production—TOWER ROOM—
The effect of good industrial illumination on increased production, reduction in waste, and prevention of accidents makes it important to review new data, new standards, and new ideas on the subject at this time when war work must be increased by every means known to the engineer. This program has been arranged to give the part which industrial lighting can play in winning the war.

*CP. What Engineered Lighting Can Do to Aid War Production.
J. O. Kaechenbeul, University of Illinois
*CP. Substitute Materials for Industrial Lighting Equipment.
E. D. Tillson, Commonwealth Edison Co.
*CP. Maintaining Lighting in War Industries. A. K. Gaetjens,
General Elec. Co.
*CP. Good Industrial Lighting and Safety. J. M. Roche,
National Safety Council
Discussion periods will follow each talk, during which the audience will be invited to present other data and to ask questions.

Tuesday, June 23

9:30 a.m.—Switching Equipment—BALL ROOM—


Calculating Board of the Commonwealth Edison Company to be visited on one of the inspection trips
Three-Tube Structure of the New Chicago Subway. The electrical facilities and operating plan for the subway will be described in the Land Transportation session.

2:00 p.m.—Conference of Officers, Delegates and Members — BALL ROOM —

Wednesday, June 24

9:30 a.m.—Lightning and Miscellaneous — BALL ROOM —

9:30 a.m.—Overload Operation of Transformers and Rotating Machinery — TOWER ROOM —
42-98. Factors Affecting the Mechanical Deterioration of Cellulose Insulation. F. M. Clark, General Elec. Co. 25 cents by mail.

9:30 a.m.—Conference on Electronic Control of Resistance Welding — Room "G" —
The objective of this conference will be to obtain an informal interchange of opinions and experiences on various types of electronic control systems for resistance welding. It is not planned to extend the discussion to control systems for arc welding or to deal in any way with the phenomena of the welding process itself. It is hoped that those taking part will include not only engineers experienced in the manufacture of the control apparatus or the welding equipment itself but also the users of this equipment. The conference will be opened by brief talks by two discussion leaders, G. W. Garman, General Electric Company, and E. H. Vedder, Westinghouse Electric and Manufacturing Company, after which discussion from the floor will be in order.

12:30 p.m.—Board of Directors’ Luncheon Meeting — ROOM —

2:00 p.m.—Protective Relays — BALL ROOM —

See ELECTRICAL ENGINEERING for Abstracts
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42-90. Factors Which Influence the Behavior of Directional Relays. T. D. Graybeal, University of California. 30 cents by mail.

2:00 p.m.—Lightning — TOWER ROOM —


42-109. Abnormal Currents in Distribution Transformers due to Lightning. J. M. Bryant and M. Newman, University of Minnesota. 15 cents by mail.

42-104. Effect of Lightning on Thin Metal Surfaces. K. B. McEachron and J. H. Hagenguth, General Elec. Co. 20 cents by mail.

2:00 p.m.—Electronics and Standards — GOLD COAST ROOM —


Thursday, June 25

10:00 a.m.—General Session—The Organization and Management of Large-Scale Engineering Work — BALL ROOM —


Address, “Engineering As an Implement of Management.” H. B. Gear, Vice-President in Charge of Operating and Engineering, Commonwealth Edison Co.

Period for questions and discussion

2:00 p.m.—Power Transmission and Distribution

42-88. Analysis of Short Circuits for Distribution Systems. Charles F. Dalziel, University of California. 20 cents by mail.


2:00 p.m.—Land Transportation — TOWER ROOM —

42-137. Electrical Facilities and Operating Plan for the First Chicago Subway. C. E. DeLeuw, Chicago Dept. of Subways & Superhighways. 25 cents by mail.


2:00 p.m.—Conference on Educational Matters under War Conditions — ROOM C —

Friday, June 26

9:30 a.m.—Mercury-Arc Rectifier Applications


Continued on page 5

Northwestern Technological Institute at Evanston, Illinois, which will be visited on one of the trips.
SUMMER CONVENTION FEATURES, JUNE 22-26, 1942


9:30 a.m.—Basic Sciences - **TOWER ROOM**

42-140. On Eddy Currents in a Rotating Disk. W. R. Smythe, California Institute of Technology. 15 cents by mail.


42-142. Formulas for Calculating Short-Circuit Stresses in Bus Supports for Rectangular Tubular Conductors. T. J. Higgins, The Tulane Univ. of Louisiana. 15 cents by mail.

12:30 p.m.—Luncheon—Presentation of Sports' Prizes

2:00 p.m.—Selected Subjects - **TOWER ROOM**


2:00 p.m.—Cables - **BALLROOM**

42-111. Load Ratings of Cable—II. Herman Halperin, Commonwealth Edison Co. 30 cents by mail.


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**The Program**

To aid the war effort the A.I.E.E. Summer Convention program has been enlarged to a total of 20 sessions and conferences, in addition to the Annual Meeting and Conference of Officers, Delegates, and Members. This is the largest Summer Convention technical program in the history of the Institute. Several of the sessions and many of the papers are more or less closely related to war preparations. The social program has been limited to the evenings and the only sports' events will be the annual competitions for the Mershon cup and the Lee trophy. Convention headquarters will be at the Drake hotel, overlooking the shore of Lake Michigan.

**Social Program**

**Sunday, June 21**

6:15 p.m. Reception to early convention arrivals. Music and refreshments at no charge. **ROOON **

**Monday, June 22**

9:00 p.m. President's reception. Chicago Section will sponsor the dance following the reception. **BALLROOM**

**Tuesday, June 23**

6:30 p.m. “Beaches and Boulevards of Central and South America” to be held at the Lake Shore Club, where a large swimming pool and a magnificent lobby and ballroom afford excellent opportunity for portrayal of life South of the Border. Buffet dinner will be served as a preliminary to the evening's performance. Tickets for the evening, including the dinner, $1.50. No arrangements necessary for transportation, as the Club is within easy walking distance of the Drake Hotel.

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**Wednesday, June 24**

Evening. No definitely planned affair for the group, as reservations have been made for approximately 200 convention guests at the Edgewater Beach Hotel. Reservations for these tickets should be made not later than Tuesday noon. Tickets, $2.50 per person, including dinner and cover charge for the evening's entertainment.

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**Thursday, June 25**

Evening. Dinner-dance at the Drake Hotel. Tickets, $3.50 per person. Summer formal.

**Ladies' Entertainment**

In addition to the foregoing social program in the evenings, special entertainment for the ladies is being arranged by a Ladies Committee. Mrs. L. K. Bullen, Chairwoman, is in charge of the trip to the Old Mill Garden on Tuesday and the trip to the Stock Yards on Friday. Both are specially arranged for ladies and listed under trips.

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**In addition, reservations for the Adler Planetarium have been made and application for these should be in by Monday evening.**

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**Inspection Trips**

Many trips of a scientific and educational nature are being arranged, although transportation is rapidly becoming a critical matter. The transportation and trips committee expects to furnish transportation but curtailment by the Government might make necessary the cancellation of some trips or dependence solely on public transportation. On the other hand, firm commitments for transportation must be made in advance and the committee requests that the enclosed card, "Advance Registration for Trips," be filled in and turned promptly. The majority of inspection trips will be limited to U.S. citizens. Members and guests going to Chicago are reminded to take their birth certificates with them or other proof of citizenship.

Each trip is only briefly described, as more complete information will be made available at the time of registration on arrival at the convention.

**Tuesday, June 23**

12:30 p.m. Old Mill Garden. There are 90 acres of landscaped gardens surrounding a typical old French manor house. A large topiary garden of dwarfed Chinese elms is of particular interest. This trip is principally for the women guests.

1:30 p.m. The Museum of Science and Industry. Here may be seen, by means of ingenious machines and accurate scale models,
a surprisingly true conception of manufacturing processes, mining methods, transportation and power production as well as the technique of scientific research.

2:00 p.m. The Lakeside Press of R. P. Donnelley and Sons Company. Visitors will see the printing in black and white and color of "Life" and "Time," as well as interesting electrical control mechanisms and large presses in operation.

2:00 p.m. The Clarence Buckingham Fountain. Not to mention the spectacle, the features of operation, automatic lighting, and hydraulic pumping to force the central jet skyward 135 feet above the lower basin are of interest.

Wednesday, June 24

1:30 p.m. Technological Institute—Northwestern University. Here there are extensive modern facilities for instruction and research in chemical, civil, electrical, and mechanical engineering, and the allied sciences. Among the many laboratories the high-voltage laboratory for testing under artificial weather conditions, a totally shielded radio room, and a floating sound-proof room will be of special interest.

2:00 p.m. Commonwealth Edison Company Calculating Board. This a-c network analyzer has been of invaluable assistance in solving complex problems of power flow, short circuits, and stability in a large metropolitan system. The board will be on display and its operation will be demonstrated in the solution of an actual problem.

2:00 p.m. Commonwealth Edison Company Drafting Room. This single room of 12,000 square feet exemplifies the modern trend in high-intensity illumination. It is the result of a thorough research and experimentation by the engineers of the company on various types of lamps, tubes, reflectors, and diffusers conducted in close cooperation with the men actually engaged in drafting work.

8:00 p.m. Adler Planetarium and Astronomical Museum. Here may be seen a miniature universe—the sun, moon, and planets revolving among the stars of the day and years short-ened into minutes and seconds. Antique astronomical instruments are on display as well as a portrayal of modern astronomical methods and equipment.

Thursday, June 25

10:00 a.m. Stock Yards. By special dispensation for those who register in advance the Swift and Company packing plant may be inspected. The inspection will include the complete process of converting hogs into dressed meat. A demonstration in Martha Logan's kitchen will include instruction by the chef and home economist. The trip is being arranged especially for the women but men may attend.

2:00 p.m. Cermak Pumping Station. Here may be seen the motors, pumps, and metal-clad switchgear of a station, which has a total installed pumping capacity of 300,000,000 gallons per day.

2:00 p.m. Underwriters' Laboratories, Inc. Approximately 5,500 manufacturers making some 35,000 different types of products submit their materials for test and inspection according to the safety standards set up by the Underwriters' Laboratories. A large part of the work is the testing of electrical materials, devices, and domestic electrical appliances.

2:00 p.m. Chicago Lighting Institute. A stage lecture-demonstration dealing with the trinity of light: namely, production control, and the application of light will be given by Mr. Carl W. Zersen, manager. A tour also will be made of the industrial lighting laboratory, modern store, fluorescent clinic, modern classroom and office, as well as an all-electric five-room home.

Sports

The only sports' events will be the annual competition for the Mershon cup and the W. S. Lee trophy. The tournament for the Mershon cup will be match play handicap, the 16 lowest scores to qualify on Monday, June 22. Matches will then be played, first round on Tuesday, second round on Wednesday, with semi-finals and finals played on Thursday.

For the W. S. Lee trophy, handicap medal play tournament, 36 holes, the competition will run concurrently on Monday and Tuesday with the Mershon cup tournament.

Competition for both trophies will be played on courses 1, 3, or 4 at the Olympia Fields Country Club—greens fee, $2.00. The club can be reached directly by frequent electric train service from the Randolph Street Station, not far from the Drake Hotel.

Advance Registration

Please fill in and return promptly the enclosed Advance Registration Card. This will permit the committee to have badges ready and prevent congestion at the registration desk upon arrival. A registration fee of $2.00 will be charged all nonmembers except Enrolled Students and the immediate families of members.

Hotel Reservations

Hotel reservations should be made by writing directly to the hotel preferred. For convenience a room reservation card for The Drake, convention headquarters, is enclosed.

H. H. Henline, National Secretary.

1942 SUMMER CONVENTION COMMITTEES

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