Summer General Meeting

June 21-25, 1948



MEXICO CITY



Palace of Fine Arts where the Official Inauguration of the Meeting on Monday morning will be held

MEETING FEATURES

MEXICO CITY provides a picturesque setting for the Summer General Meeting, June 21-25, 1948. Situated on a high plateau surrounded by mountains and guarded by the snowcapped volcanoes, Popocatepetl and Ixtaccihuatl, the city is a modern metropolis with magnificent colonial structures, standing in the shadows of tall modern construction. Everywhere native Indian customs contrast sharply with the cosmopolitan life and activities of the new city.

THE PROGRAM: The technical program has been planned to present the latest trends and developments in a number of specialized fields of electrical engineering that are of particular interest to Mexican engineers. The Summer General Meeting Committee has made extensive arrangements in the form of social events, banquets, entertainment, trips, and tours, so that the occasion provides a rare opportunity to keep in touch with some of the latest engineering developments and at the same time become better acquainted with fellow engineers south of the border and in the Latin-American Republics. The Mexico Section has invited members of the Asociación Mexicana de Ingenieros Mecánicos Electricistas (Mexican Association of Mechanical-Electrical Engineers), the Asociación de Ingenieros y Arquitectos (Association of Engineers and Architects), and the Centro Nacional de Ingenieros (National Institute of Engineers) to take part in the meeting. Take full advantage of these extensive arrangements and attend the Summer General Meeting in combination with a few days vacation in colorful Mexico.

PALACE OF FINE ARTS: The official inauguration of the meeting will take place in the Palace of Fine Arts. This is a beautiful edifice constructed entirely of the finest Italian and Mexican marble, and an outstanding example of French architecture situated in the heart of the city. The Palace has a beautiful theatre with an internationally famous Tiffany glass curtain. In adjacent halls are artistic exhibits and expositions.

TEACHERS COLLEGE: All technical sessions and conferences will be held in the Teachers College which is situated near the

historic suburb of Popotla and easily reached by means of wide avenues and boulevards. This is one of the largest and most modern buildings in Mexico City, construction having been completed in November 1947. Magnificent murals executed by Mexico's famous painter, José Clemente Orozco, adorn the walls of the center building while reliefs, sculptured in stone by Luis Ortiz Monasterio, an outstanding Mexican artist, decorate the upper facades of flanking buildings. The reliefs depict the seven basic epochs of Mexican culture which are likewise characteristic themes of Western culture.

ADVANCE REGISTRATION: Please register in advance by filling in and air mailing the enclosed advance registration card. A registration fee of \$2.00 will be charged all non-members except Enrolled Students and the immediate families of members.

TRANSPORTATION: Members and guests immediately should make their railroad reservations directly with the railroad offices. The central offices of the Missouri Pacific Lines will keep a close record of all reservations regardless of point of origin and, wherever there is a sufficient group, special cars will be assigned, providing they can be obtained from the Pullman Company. The special train over the Missouri Pacific Lines is contemplated to leave St. Louis 5:00 p.m., Thursday, June 17, and return from Mexico City at 4:00 p.m., Friday, June 25, provided there are more than 125 people, and cars can be obtained.

All requests for information regarding air transportation are being channeled through C. Frank Snyder, Manager Group Sales, American Airlines, 437 Fifth Avenue, New York 16, N. Y., and will be forwarded to your nearest American Airlines office or agency for direct negotiation with you.

All requests for information regarding automobile transportation should be sent to the Gulf Oil Company, 17 Battery Place, New York 4, N. Y., attention Roy Taylor, Manager, Tour Guide Bureau, or sent to Conoco Travel Bureau, 1755 Glen Arm, Denver 2, Colorado, attention Miss Margaret Schaff, Director.

SUMMER MEETING FEATURES

HOTEL RESERVATIONS: As all Mexico City hotels are small, the Hotels Committee has reserved space in the following hotels for the use of American and Canadian members, and there will be no headquarters hotel.

Rooms		Rates Per Person		
Reserved	Hotel	Single	Doubles	
200	Del Prado	\$5.00-\$7.00	\$3.50-\$5.00	
100	Regis		3.50- 6.00	
50	Prince		4.00- 6.00	
100	Reforma	7.00-10.00	6.00- 9.00	
75	Geneve	3.00- 5.00	3.50- 6.00	

All hotel reservations should be made by air mailing requests to the Hotel Accommodations Committee, Calle de la Palma 33, Despacho 210, Mexico D.F., Mexico. Please state your first and second choices of hotel, type of room desired, and the preferred limit of cost.

GENERAL INFORMATION: To enter Mexico, United States citizens should procure a tourist card costing \$2.10 obtainable by personal or written application to the nearest Mexican Consulate. Application for a tourist card must be accompanied by definite proof of U. S. citizenship, such as a birth certificate. In addition to tourist cards, members from Canada will need their Canadian passports. Citizens of other countries should consult the nearest Mexican Consulate as to necessary papers.

A valid certificate indicating smallpox vaccination within three years is desirable for re-entry into the United States. Those without such certificates would be placed under surveillance and required to report to the Public Health Officer in their area. Particular precaution should be taken in regard to eating strange foods, and it is desirable to drink only boiled or bottled water, eat only such foods and vegetables as are cooked or peeled, and use boiled, canned or powdered milk.

To conform to customs in Mexico and to take full advantage of climatic conditions, the trips will be taken in the morning and the sessions will start at 16:00 o'clock (4:00 p.m.). All times used throughout the program are "tiempo oficial" which is used throughout the Republic of Mexico, midnight being both 24 hours and zero hours. It is customary to eat the heavy meal at lunch time, usually between 13:00 and 15:30 in the afternoon and the light meal in the evening about 20:00 o'clock or later.

ADVANCE RESERVATIONS FOR SOCIAL EVENTS AND TRIPS: In planning the Meeting, great care has been taken to determine the number of persons that may be accommodated for each event. A limit has, therefore, been placed on the number who can be accommodated as well as a minimum, to avoid excessive costs. Members and guests should carefully study the program for each day, select the social events, pleasure trips, inspection trips, etc., they wish to take part in, and then procure their tickets before the meeting gets under way.

Advance reservations for tickets may be made by checking off the events you will attend on the enclosed advance reservation form which should be air mailed to William H. Taylor, Secretary, Palma 33-210, Mexico D. F. Tickets will be held until June 21.

Those not making advance reservations may obtain tickets at the information booths in the hotels: Reforma, Geneve, Regis, del Prado, Prince, de Soto Arms, Luma, and at the Teachers College. All prices listed are in terms of U. S. dollars, approximate rate of exchange 4.85 pesos to the dollar. No refund will be made on tickets purchased or reserved in advance, but tickets acquired may be turned over to other members and guests.

H. H. HENLINE, Secretary

SUMMER GENERAL MEETING COMMITTEE

President
Oscar R. Enríquez
Vice-President
Héctor Martínez D'Meza

Secretary William H. Taylor Treasurer Federico A. Nava

General Committee Technical Program
Basil Nikiforoff, Chairman

General Attention Committee
Manuel M. de Lascuráin, Chairman

General Service Committee
Rafael Rangel, Chairman

Committee Chairmen

G. Maryssael J. de la Macorra Finance	G. B. Doughman Sessions A. Bourlón
A. Páez Urquidi G. Solís Payán } Papers	B. Nikiforoff C. Santacruz Technical Visits
P. Barona Soto Hotel Accom- J. Rivera S. Modations	E. del Valle G. M. M. de Lascuráin Hospitality
A. Enrile Trips and C. A. Plumb Sports	Mrs. Lascuráin Mrs. Plumb and Mrs. Nikiforoff
B. E. Arias A. Carrión Transportation	E. Nieto Palacios R. Rangel Information
A. Christlieb Registration R. H. Eberstadt	Alfredo Christlieb

SPECIAL COORDINATING COMMITTEE

C. S. Purnell, Chairman

R. F. Danner
J. E. Hobson
R. K. Honaman
H. M. Turner

SOCIAL EVENTS AND ENTERTAINMENT

Tickets for the Social Events and Entertainment will be available at the Information booths in the hotels Reforma, Geneve, Regis, del Prado, Prince, de Soto Arms, Luma, and at the Teachers College.

Monday, June 21

- 13:00 Banquet sponsored by Sr. Antonio Ruiz Galindo, Minister of National Economy. Addresses by Sr. Ruiz Galindo and Mr. George Messersmith, Executive President of the Mexican Light & Power Co. and its subsidiaries. Club Campestre de la Ciudad de Mexico (Mexico City Country Club).
- 21:30 Concert by Symphonic Orchestra of Mexico under the direction of Maestro Carlos Chávez. Palace of Fine Arts.

Tuesday, June 22

- 12:00 Reception to Board of Directors tendered by City Councilmen with the Mayor presiding. Members of the Board will be made honorary guests of Mexico City and the keys of the City will be given to Blake D. Hull, President AIEE. Municipal City Council Room.
- 13:00 Banquet for Board of Directors and Executive Committee of Summer General Meeting Committee offered by the Mexico Section. Guest of Honor—Lic. Fernando Casas Aleman, Mayor of Mexico City and Governor of the Federal District. Sr. Alejandro Paez U., President of the Mexico Section will offer the banquet on behalf of the Section.
- 16:30 Ladies Reunion—Mexican Afternoon, Tea and Fashion Exhibit at the University Club.

Wednesday, June 23

- 10:00 Mexican ladies will conduct the visiting ladies on a shopping tour.
- 19:30 Reception given by Sr. Adolfo Orive Alba, Minister of Hydraulic Resources. Motion pictures will show how Mexico has taken advantage of hydraulic resources to irrigate and to generate power. The Ministry will offer a buffet supper and an address will be given by The Honorable Walter Thurston, United States Ambassador. Hotel del Prado.
- 22:00 Exhibition of typical regional Mexican dances in native costumes under the auspices of the Ministry of Public Education and the Civic Department of the City. Mariachis (Mexican troubadors) will enliven the occasion with native songs. Palace of Fine Arts.

SUMMER MEETING FEATURES

Thursday, June 24

- 16:00 Lecture on the origin and growth of the Paricutin Volcano by Dr. Ezequiel Ordoñez, illustrated with motion pictures. Teachers College Auditorium.
- 20:00 Reception to Blake D. Hull, President of the AIEE, banquet offered by the Mexico Section, followed by grand ball. Addresses by prominent industrialists and businessmen. Club Campestre de la Ciudad de Mexico (Mexico City Country Club).

Friday, June 25

- 12:00 Roping Contest and Amateur Bullfight. Rancho del Charro.
- 17:00 Closing Ceremonies of meeting and reception by Lic. Jaime Torres Bodet, Minister of Foreign Relations of the Republic of Mexico. Ministry of Foreign Relations.

SPORTS

GOLF: Members and guests who wish to play golf, will be extended special facilities to use the golf courses of the Mexico City Country Club at Churubusco, the Chapultepec Country Golf Club at the Lomas de Chapultepec, and the Azteca course located near Chapultepec Park.

ROWING: Boats may be rented at the Chapultepec Park lake, Inquire at the Information Desks for details.

SWIMMING: Arrangements have been made to permit members and guests to make use of the swimming pools at the Reforma Club, Lomas de Chapultepec, the Balneario Olímpico and the Balneario Las Termas.

HORSEBACK RIDING: Those desiring to go horseback riding while in Mexico will be provided with suitable mounts at moderate rates. Inquire at Information Desks for details.

TENNIS: Tennis may be played on the fine courts at the Reforma Club.

TECHNICAL PROGRAM

All time shown is "Tiempo Oficial."

All sessions are in the Teachers College.

Monday, June 21

8:30—Registration in lobby of Del Prado Hotel until noon of the 21st. Register thereafter at the Teachers College.

11:00—Official Inauguration of Meeting

Palace of Fine Arts

Reception to President Miguel Aleman of Mexico and Cabinet Members.

Presidential Salute.

Rendition of the Mexican National Anthem by the Presidential Staff Band.

Salute to the Colors

Welcoming address. Sr. Oscar R. Enriquez, President, 1948 Summer General Meeting.

Address of Welcome. Sr. Fernando Casas Aleman, Governor of the Federal District and Mayor of Mexico City.

Address. Blake D. Hull, President, American Institute of Electrical Engineers.

Inaugural Declaration. President Miguel Aleman of Mexico.



Teachers College in the suburb of Popotla where all Technical Sessions and Conferences will be held

ADVANCE COPIES OF PAPERS

Members may obtain preprints of technical papers at the uniform price of 30ϕ each $(60\phi$ each to non-members) by sending enclosed order form and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Conference papers denoted by CP ** are intended for presentation only, and are not available. Mail orders (particularly from out-of-town members) are advisable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Most of the papers ultimately will be published as AIEE PROCEEDINGS and in the TRANSACTIONS.

16:00-Textile Mill Applications

Salon 1A

PABLO BARONA SOTO and L. A. UMANSKY, Presiding

- 48-142. The Textile Mill Industry in Mexico. Aurelio Lobatón, Atoyac ACO.* Textil and Ayotla Textil, S.A.
- 48-114. Electrical Progress in the Textile Industry. F. D. Snyder, Westinghouse Electric Corporation.
- 48-121. Induction and Dielectric Heating. G. W. Scott, Jr., Armstrong Cork Company. The author will stress the dielectric heating aspects of the subject.

16:00—Technical Education

Salon 1B

EMILIO RODRIQUES MATA and EVERETT S. LEE, Presiding

- 48-143. Technical Education and Its Trend in Mexico. Juan M. ACO.* Ramirez Caraza, Escuela Superior de Ingenieria Mecanica y Electrica.
- 48-144. Psychotechnical Methods Employed to Select Personnel for ACO.* Industries. D. W. Mehl, Telefonos de Mexico, S.A.
- 48-145. Engineering Training—An Instrument of Progress. A. G. ACO.* Conrad, Yale University.
- 48-146. The Impacts of Electronics on Engineering Education in the ACO.* United States. W. G. Dow, University of Michigan.
- 48-147. International Aspects of Technical Literature. E. P. Hamil-ACO.* ton, John Wiley & Sons, Inc.

16:00—Applications to Petroleum Production

Salon 1C

FERNANDO R. CORRAL, Presiding

- 48-148. A Few Points on the Role of Engineers and of Petroleos ACO.* Mexicanos in the Industrial Development of Mexico. Luis Alfonso Guerrero, Petroleos Mexicanos.
- 48-149. Electrification of Petroleum Pipe Lines. M. A. Hyde, Westinghouse Electric Corporation.
- 48-150. Oil Production by Electric Power. W. G. Taylor, General Electric Company.
- Movie: "Lease on the Future".—Oil-Well Drilling, Pumping and Pipe-Line Transportation. By courtesy of the General Electric Company. (28 minutes).

16:00-Hydroelectric Power and Irrigation

Salon 1D

DAVID ROLDAN G. and A. H. FRAMPTON, Presiding

- 48-152. Hydroelectric Potentiality of Mexico. Andres Garcia Quintero, Director of Hydrology, Ministry of Hydraulic Resources, Mexico.
- 48-151. Full Utilization of Mexico's Hydraulic Resources through Multiple Purposes. Adolfo Orive Alba, Minister of Hydraulic Resources, Mexico.
- 48-123. Grand Coulee Power Development. S. M. Denton, U. S. Bureau of Reclamation.

Tuesday, June 22

- 14:00—Delegates Get-Together luncheon meeting at the University Club
- 16:00—Conference of Vice-Presidents and District Secretaries

Vice-Presidents Salon

EVERETT S. LEE, Presiding

16:00—Applications to Steel Production

Salon 1A

F. W. CRAMER and H. MARTINEZ D'MEZA, Presiding

- 48-141. Trends in Electrification of American Steel Industry. L. A. Umansky, General Electric Company.
- 48-153. Steel Industry in Mexico. Carroll E. Plumb, La Consoli-ACO.* dada, S.A.
- Movie: "Steel—Man's Servant." By courtesy of the U. S. Steel Export Company.

16:00-Power Systems

Salon 1B

HAROLD COLE and LUIS MASCOTT, Presiding

- 48-154. Comments on the Development of Modern Power System ACO.* Design Concepts and Operating Practices. D. M. Jones, General Electric Company.
- 48-127. Change of Frequency on the System of the Southern California Edison Company. H. W. Tice, A. A. Kroneberg, W. N. Johnson, J. D. Enefer, E. E. Tugby, C. L. Sidway, Southern California Edison Company.
- CP.** Trends in Power Generation Costs. A. E. Knowlton, Electrical World.

16:00—Research

lon 1C

JOSE V. SCHMILL and W. C. WHITE, Presiding

- 48-155. The Electrostatic Transformer and Its Possible Application ACO.* to the Direct Utilization of Nuclear Energy. Jose Mireles Malpica, Physicist and Consultant.
- 48-179. Some Aspects of Research and Technological Development ACO.* in Mexico. F. W. Godwin and J. E. Hobson, Armour Research Foundation.
- 48-120. Formation of Oxide Films on Electrical Steel. P. L. Schmidt, Westinghouse Electric Corporation.

16:00—Communications

Salon 1D

H. S. OSBORNE and IGNACIO CERVANTES, Presiding

- 48-140. The Rotary Automatic Telephone System. William Hatton, ACO.* International Telephone and Telegraph Corporation.
- 48-156. Development of Telegraph Communications in the Republic ACO,*of Mexico.—Recently Approved Project to Change and Modernize the Present Systems. Jose Hernandez Olmedo, Ministry of Communications & Public Works, Mexico.
- 48-157. The Intercommunication of the Ericsson and Rotary Auto-ACO.* matic Telephone Systems of Mexico City. Carl E. J. Danielsson, Telefonos de Mexico, S.A.

Wednesday, June 23

10:00—Annual Meeting

Auditorium

President BLAKE D. HULL, Presiding

- 1. Report of Board of Directors. H. H. Henline, Secretary.
- 2. Report of Treasurer, W. I. Slichter.
- 3. Reports of Committee of Tellers on:
 - (a) Votes for nominees for AIEE offices.
 - (b) Proposed constitutional amendments.

Ixtapantongo Power Plant, units 31,000 kw each, to be visited on one of the Inspection Trips

- 4. (a) Introduction of, and presentation of President's badge to Everett S. Lee.
- (b) Response by Mr. Lee.
- Report on Institute Prizes for Papers. H. M. Turner, Chairman, Committee on Award of Institute Prizes.
- 6. Presentation of Lamme Medal to A. M. MacCutcheon.
 - (a) The Establishment of the Medal. T. G. LeClair.
- (b) The Career of the Medalist, F. E. Harrell, Reliance Electric and Engineering Co.
- (c) Presentation of Medal and Certificate by President Hull.
- (d) Response by Mr. MacCutcheon.
- 7. Any other business that may be presented.
- 8. President's Address. Blake D. Hull.

16:00—Conference on Section Operation and Management

Salon AIEE 1

J. C. STRASBOURGER, Presiding

- Review of the "Essential Activities of a Model Section". Prepared by F. S. Black.
- Report by Subcommittee considering recommendations for a new set of prize paper rules. Chairman, F. S. Black.
- Report of Subcommittee studying Sections finances. Chairman, Victor Siegfried.
- 4. Report on Technical Group Activity.
- 5. Report from the Committee on Membership Transfers. Chairman, D. E. Moat.
- 6. New Sections.
- 7. Representation at District Executive Committee Meetings.
- 8. Section Territorial Changes.
- 9 Other Business

16:00—Rotating Machinery

Salon 1A

CARLOS RAMIREZ ULLOA and M. M. BRANDON, Presiding

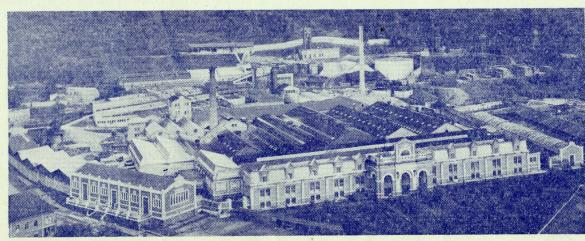
- 48-158. Power Development in Mexico. Alejandro Paez Urquidi, Comision Federal de Electricidad; Alfonso Fernandez del Busto, Cia. Mexicana de Luz y Fuerza Notriz, S.A.; and German Garcia Lozano, Nueva Cia Electrica Chapala, S.A.
- 48-130. Manufacturing Electrical Apparatus In Mexico. J. V. Schmill, Industria Electrica de Mexico, S.A.; R. M. MacGregor, Thalnepantla, Estado de Mexico.
- 48-159. The Equivalent Circuit and Constants for a Double Squirrel ACO.* Cage Rotor Induction Motor. R. C. Frese, Industria Electrica de Mexico, S.A.
- 48-133. The "Superimposed Frequency Test" for Induction Motors, or S. F. Test. M. P. Romeira, General Electric Sociedade Anonima.

16:00—Communication

Salon 1B

- J. L. CALLAHAN and JOSE HERNANDEZ OLMEDO, Presiding
- 48-131. International Radio Telegraph Communications. Sidney ACO.* Sparks, RCA Communications, Inc.
- 48-125. Mobile Radio. Austin Bailey, American Tel. & Tel. Co.

SUMMER GENERAL MEETING



San Rafael Paper Mills to be visited on one of the Inspection Trips

48-132. A New 150-Kilowatt Transmitter for Standard Band Broadcasting. T. J. Boerner, Radio Corporation of America.

> Super-High Frequency Measurements. John J. Grigsby, University of Colorado. Winner of the North Central District Branch Competition Prize.

16:00—Industrial Power Systems and Practices Salon 1C

HERBERT SPEIGHT and EDUARDO LUQUE DIAZ, Presiding

48-118. Trends and Practices in Modern Industrial Power-Distribution Systems. W. C. Bloomquist, General Electric Company.

48-160. Industrial Group Builds Own Power Plant. Vicente Aldape ACO.* C., Planta Electrica Grupo Industrial.

48-119. Central Utility Power Service Vs. Local Plant Generation in Industry. A. H. Frampton, Hydro-Electric Power Commission

Thursday, June 24

9:30-Board of Directors Meeting

12:30-Board of Directors Luncheon American Club

16:00-Electric Welding

Salon 1A

J. D. LEITCH and SANTIAGO B. FLORES, Presiding

48-121. Induction and Dielectric Heating. G. W. Scott, Jr., Armstrong Cork Company. In this presentation, the induction heating aspects will be stressed.

Movie: "Advantages of A-C Welding." By courtesy of the Westinghouse Electric Corporation.

Movie: "This is Resistance Welding." By courtesy of the General Electric Company.

48-180. Resistance-Welding Machine and Power Supply. C. E. Smith, The Taylor-Winfield Corporation.

16:00—Mining Operations

Salon 1B

F. W. CRAMER and LEOPOLDO CASTRO, Presiding

48-134. Utilization of Electric Power in Open Pit Copper Mining. S. F. French, Anaconda Copper Mining Company; H. Speight, Westinghouse Electric Corporation.

48-181. Electric Cables in Mines-A Summary of Recent Papers. ACO.* E. W. Davis, Simplex Wire and Cable Company.

- Movie: "Operations of the Cananea Consolidated Copper Company." By courtesy of Cananea Consolidated Copper Company.
- Movie: "Open Pit Copper Mining in Chili." By courtesy of the Chili Exploration Company.
- Movie: "Copper Mining, Smelting and Refining-Montana Operations." By courtesy of Anaconda Copper Mining Company.

16:00—Transmission and Distribution

Salon 1C

C. A. POWEL and FELICIANO ESPRIELLA, Presiding

48-124. Power Systems Overvoltages Produced by Faults and Switching Operations. General Systems Subcommittee, S. B. Crary, Chairman. Presentation by E. M. Hunter.

48-182. Preliminary Report on Electric Power Distribution System ACO.* Practices and Trends in the United States. Distribution Subcommittee, Harold Cole, Chairman.

48-139. Conductors-Types, Availability and Use. Subcommittee on ACO.* Towers, Poles, and Conductors, A. E. Davison, Chairman. Presentation by Edwin Hansson.

48-126. Ten Years Performance of Lightning Resistant Wood-Pole Transmission Lines. R. M. Schahfer and W. H. Knutz, Northern Indiana Public Service Company. Presentation by E. L.

16:00-Standards Development

Salon 1D

F. E. HARRELL and W. C. ROSS, Presiding

48-136. Standardization in the United States. H. S. Osborne, American Tel. & Tel. Co.

48-135. Standardization by Electrical Manufacturers. Frank Thorn-ACO.* ton, Jr., Westinghouse Electric Corporation.

48-183. Safety Codes as American Standards. W. R. Smith, Public ACO.* Service Electric & Gas Company.

48-137. A Practical Application of Standard Apparatus-Factory ACO.* Assembled Substations. D. E. Craig, E. M. Hunter and L. D. Madsen, General Electric Company.

48-138. Standards As Applied to Motors and Motor Applications. ACO.*W. R. Hough, The Reliance Electric and Engineering Company.

Friday, June 25

9:00—Paper Mill Applications

Salon 1A

ENRIQUE DEL VALLE G. and L. A. UMANSKY, Presiding

48-184. The Paper Industry in Mexico. Jose de la Macorra, Jr., Cia. ACO.* de las Fabricas de Papel de San Rafael y Anexas, S.A.

TECHNICAL PROGRAM

48-115. Electrical Developments in the Pulp and Paper Industry. R. R. Baker, Westinghouse Electric Corporation.

48-185. Electronic System to Control Speed and Tension in Paper ACO.* Manufacturing Machines. Angel Rosales de la Mora, Cia. Industrial de Atenquique, S.A.

9:00—Relaying and Protective Devices

Salon 1B

M. M. BRANDON and ENRIQUE M. GONZALEZ

48-122. A Brief Review of Switchgear and Circuit Breaker Practice in the United States, M. H. Hobbs, Westinghouse Electric Corporation.

48-186. Principles and Practices of Relaying in the United States. W. E. Marter, Duquesne Light Company; E. L. Harder, Westinghouse Electric Corporation.

48-187. A Method of Selecting Inherent Overheat Protectors Based upon Motor Design Information. V. G. Vaughan, Spencer Thermostat Company. The author will give an actual demonstration of the operation during this presentation.

> A Method of Locating Line Faults. O. A. Palmer, Jr., and Charles S. Wright, North Carolina State College. Winners of the Southern District Branch Competition Prize.

9:00—Electronics

Salon 1C

W. G. DOW and AUGUSTIN L. DE LA TORRE, Presiding

48-128. Trends in Electronic Engineering. D. G. Fink, McGraw-Hill Publishing Company, Inc.

48-129. Trends in Electron-Tube Design, W. C. White, General Electric Company.

48-188. Mercury-Arc Power Converters in North America. C. R. Marcum, Westinghouse Electric Corpoation; L. W. Morton, H. C. Steiner, General Electric Company; H. Winograd, Allis-Chalmers Manufacturing Company.

9:00-Railroad Transportation

Salon 1D

J. C. AYDELOTT and ADOLFO CARRION, Presiding

48-117. The Increasing Uses for Electricity in Land Transportation. Charles Kerr, Jr., Westinghouse Electric Corporation.

48-116. The Locomotive Traction Generator Comes of Age. Richard Lamborn, General Electric Company.

ACO.*: Advance Copies only available; not intended for publication in TRANSACTIONS.

CP.**: Conference paper; no advance copies are available; not intended for publication in TRANSACTIONS.

INSPECTION TRIPS AND TOURS

Reservations for tickets should be made early as the number which can be accommodated on each trip is limited. Those who have not made advance reservations by mail may obtain tickets at the Information booths in the hotels: Reforma, Geneve, Regis, del

Prado, Prince, de Soto Arms, Luma, and at the Teachers College. All prices indicated are in terms of U. S. dollars, approximate rate of exchange 4.85 pesos to the dollar.

Tuesday, June 22

Inspection visit to the Hydro-Electric project "Miguel Alemán," visiting Ixtapantongo and Santa Barbara power plants, the dams at Avalle de Bravo and Colorines and additional works. Tickets \$5.50 each including luncheon at the Camp Clubhouse of the Federal Electricity Commission at Colorines. Leaves Hotel del Prado 7:30, returns 19:30, approx. 400 km.

Inspection trip to the Industrial Zone at Tlalnepantla, Group No. 1, visiting Cía. Mexicana de Refractarios A. P. Green, S.A., Cementos Anáhuac, S.A., and other important industries in that zone. Tickets \$2.75. Leaves Hotel del Prado 8:00, returns 13:00, approx. 100 km.

Tour of the Churubusco, El Carmen and Desierto de los Leones Convents in combination with an inspection visit to the Pumping Plant at Xotepingo. Tickets \$3.70. Leaves Hotel Reforma at 8:00,

Sightseeing tour of Mexico City, visiting the principal public buildings, historic monuments, museums, etc., and inspection visit to Cía. Hulera Euzkadi, S.A. where luncheon will be served. Tickets \$3.50. Leaves Hotel Geneve 8:00, returns 15:00.

Inspection trip to Real del Monte y Pachuca Mines. Tickets \$6.50 each including a box lunch. Leaves Hotel Prince at 8:00, returns at 15:00, approx. 220 km.

Sightseeing tour of Mexico City, visiting the principal public buildings, historic monuments, museums, etc., and inspection trip to La Consolidada, S.A., where luncheon will be served. Tickets \$4.75 each. Leaves Hotel Geneve 8:00, returns 15:00.

Tour of Xochimilco (Floating Gardens) and Thermo-Electric Plant at Nonoalco, where luncheon will be served. Tickets \$4.75 each. Leaves Hotel Regis 8:00, returns 15:00.

Inspection trip to "Ayotla Textil" Mill. Tickets \$2.00. Leaves Hotel del Prado 9:00, returns 12:30.

Inspection tour of Glass Factories. Tickets \$2.00 each. Leaves Hotel Reforma at 9:00, returns 12:30.

Inspection tour of Radio Studios and Transmitting Stations. Tickets \$2.25 each. Leaves Hotel Prince 9:00, returns 13:00.

Tour of Pyramids of San Juan Teotihuacán and visit to the Shrine of Guadalupe and Convent of Acolman. Tickets \$4.00 each. Leaves Hotel Geneve 9:00, returns 13:30, approx. 130 km.

Tour of Xochimilco (Floating Gardens) and Ciudad Industrial D. M. Nacional, where luncheon will be served. Tickets \$4.90 each. Leaves Hotel Regis 8:00, returns 15:30.

Tour of Cuevnavaca, visiting Cortés Palace, Borda Gardens, Cathedral. San Anton Falls and city sightseeing, luncheon and shopping. Tickets \$6.75 each. Leaves Hotel Regis 9:00, returns 15:00.

Sightseeing tour of City, Groups 3 and 4, visiting principal public buildings, historic monuments, museums, etc. Tickets \$2.25 each. Leaves Hotel Reforma, 9:30, returns 13:30.

Inspection trip to Teléfonos de México, S.A. Tickets \$1.75 each. Leaves Hotel Geneve 10:00, returns 13:00.

Inspection trip to Cía. Telefónica y Telegráfica Mexicana, S.A. Tickets \$1.75 each. Leaves Hotel Geneve 10:00, returns 13:00.

SUMMER GENERAL MEETING

Wednesday, June 23

Tour of Cacahuamilpa Caves and Taxco, passing through Cuernavaca. Tickets \$12.50 each including luncheon and time for shopping. Leaves Hotel Reforma 7:30, returns 21:30, approx. 450 km.

Tour of Churubusco, El Carmen and El Desierto de los Leones Convents and Pumping Plant at Xotepingo. Tickets \$3.70 each. Leaves Hotel Reforma 8:00, returns 14:00.

Sightseeing tour of Mexico City, visiting principal public buildings, historic monuments and museums, etc., and inspection trip to moving picture studios at Churubusco, where luncheon will be served. Tickets \$4.50 each. Leaves Hotel Prince 8:00, returns 15:00.

Sightseeing tour of Mexico City, visiting principal public buildings, historic monuments, and museums, etc., and inspection trip to CLASA Moving Picture Studios, where luncheon will be served. Tickets \$4.00 each. Leaves Hotel Geneve 8:00, returns 15:00.

Tour of Radio Station Studios and Transmitters. Tickets \$2.25 each. Leaves Hotel Prince 9:00, returns 13:00.

Tour of Cuernavaca, visiting the Cortés Palace, Borda Gardens, Cathedral, San Anton Falls, sightseeing trip through City, luncheon, and time for shopping. Tickets \$6.75. Leaves Hotel Regis 9:00, returns 15:00.

Sightseeing tour of Mexico City, Groups 1 and 2, visiting the principal public buildings, historic monuments, museums, etc. Tickets \$2.25 each. Leaves Hotel Reforma 9:30, returns 13:30.

Thursday, June 24

Inspection trip to Hydroelectric Plant and Installations at Necaxa and Tepexic. Tickets \$12.50 each including luncheon at the Necaxa Clubhouse. Leaves Hotel del Prado 7:30, returns 20:30, approx. 430 km.

Tour of Cholula and Puebla, visiting the Manuel Avila Camacho dam and the Valsequillo. Tickets \$9.50 each including luncheon at Puebla. Leaves Hotel Reforma 7:30, returns 21:30, approx. 340 km.

Inspection trip to Industrial Zone of Tlalnepantla, Group 2, visiting the installations of Herramientas Mexico, S.A., Reynolds Metals and Consolidated Rolling Mills. Tickets \$2.75 each. Leaves Hotel del Prado 8:00, returns 13:00.

Tour of the Churubusco, Carmen and Desierto de los Leones Convents and Pumping Plant at Xotepingo. Tickets \$3.70 each. Leaves Hotel Reforma 8:00, returns 14:00.

Inspection trip to Real del Monte y Pachuca Mines. Tickets \$6.50 each including box lunch. Leaves Hotel Prince 8:00, returns 15:00, approx. 220 km.

Inspection trip to San Rafael y Anexas Paper Mills and excursion to Amecameca and Tlamacas where the volcanoes Popocatépetl and Ixtaccíhuatl may be seen, and if weather is clear enough, the peak of Orizaba and snowcapped extinct volcano nearby Toluca. Tickets \$6.00 each including a typical Mexican Barbacue at San Rafael. Leaves Hotel Geneve 8:00, returns 15:00.

Inspection visit to Atzapotzalco Oil Refinery. Tickets \$2.00 each. Leaves Hotel Reforma 9:00, returns 12:30.

Inspection tour of Radio Station Studios and Transmitters. Tickets \$2.25 each. Leaves Hotel Prince 9:00, returns 13:00.

Tour of Pyramids of San Juan Teotihuacan, including visits to the Guadalupe Shrine and Acolman Convent. Tickets \$4.00 each. Leaves Hotel Geneve 9:00, returns 13:30, approx. 130 km.

Tour of Cuernavaca visiting the Cortés Palace, Borda Gardens, Cathedral, San Anton Falls and sightseeing about City. Time for luncheon and shopping. Tickets \$6.75 each. Leaves Hotel Regis 9:00, returns 15:00.

Tour of Xochimilco (Floating Gardens). Tickets \$2.75 each. Leaves Hotel Reforma 9:00, returns 13:30.

Sightseeing tour of City, Groups 3 and 4, visiting principal public buildings, historic monuments, museums, etc. Tickets \$2.25 each. Leaves Hotel Reforma 9:00, returns 13:30.

Inspection visit to Teléfonos de México, S.A. Tickets \$1.75 each. Leaves Hotel Géneve 10:00, returns 13:00.

Inspection visit to the Cía. Telefónica y Telegráfica Mexicana. Tickets \$1.75 each. Leaves Hotel Geneve 10:00, returns 13:00.

Inspection visit to Industria Eléctrica de México, S.A. at Ciudad Eléctrica, Tlalnepantla, State of Mexico. Tickets \$3.75 each including luncheon at factory Clubhouse. Leaves Hotel Geneve 10:00, returns 15:00.

Friday, June 25

Tour of the Pyramids of San Juan Teotihuacán and a visit to the Shrine of Guadalupe and Convent of Acolman. Tickets \$4.00 each. Leaves Hotel Geneve 9:00, returns 13:30, approx. 130 km.

Sightseeing tour of the City, Groups 1 and 2, visiting principal public buildings, historic monuments, museums, etc. Tickets \$2.25 each. Leaves Hotel Reforma 9:30, returns 13:30.

POST-MEETING TRIPS

For those who will remain in Mexico City after the meeting, several attractive and highly interesting excursions of 2 to 5 days duration have been arranged costing approximately \$22.75 to \$82.00 per person. A 2-day trip is contemplated to Cuernavaca and Taxco. A 3-day trip is planned to Puebla, Cholula, Garci-Crespo, and Fortin de las Flores. A 4-day trip to Paricutin Volcano, San Jose Purúa, Pátzcuaro, Uruapan, and Morelia. A 5-day trip to Cuernavaca, Taxco, and Acapulco is planned by car as well as another 5-day trip to Acapulco by plane. For further details in regard to these trips, please make early inquiries and arrangements at the information booths in the official hotels or at the Teachers College.



Mexico City viewed from the rooftop of one of the Hotels.

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