### **HISTORY OF THE**

### **MILWAUKEE SECTION**

OF

#### THE AMERICAN INSTITUE OF ELECTRICAL ENGINEERS

### **Compiled by the Historical Committee:**

Mr. H. F. Loeffler, Chairman ----- Wisconsin Telephone Company
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# Milwaukee, Wisconsin April, 1950

Republished in August, 2009 by the IEEE Milwaukee Section Historical Committee

With a *Preface* by W. R. Henning, Chairman of the 2009 Historical Committee

#### **Preface**

As you will read in the *Introduction*, the Milwaukee Section of A.I.E.E formed a Historical Committee in 1949 to compile a history of A.I.E.E in Milwaukee over the 40 year period from 1910 to 1950. That committee of three, listed as authors on the title page, compiled a record of the historical information available from various sources, such as newspaper accounts and section records. Then they prepared a written document, which is reproduced here. For many years, a copy of the original write-up was kept in a four-drawer cabinet, entrusted to the Historical Committee, which has been a permanent committee of the Milwaukee Section from 1949 to this day.

In 2009, as part of the 125 Year IEEE Celebration Event, the Milwaukee Section decided to republish and re-distribute the document, in order that the information not be lost and that it be generally available.

In reading this document, when you come upon present-tense factual statements, keep in mind it was written in 1949. The original history was prepared by the 1949-50 Historical Committee, using a typewriter. The original text is presented below using Courier font to help us keep in mind it was written 60 years ago.

William Henning, Chairman Historical Committee of the Milwaukee Section August 25, 2009

#### INTRODUCTION

The constitution of the American Institute of Electrical Engineers was adopted on May 13, 1884, and the Society was formally organized. A little less than 26 years later a Section of the Institute was formed in Milwaukee, Wisconsin on February 11, 1910. The Milwaukee Section was the twenty-third section of the Society to be established (Chicago had the first section in 1893), and at present there are 85 sections throughout the country.

The Milwaukee Section, situated in District #5 (Great Lakes District) of the A.I.E.E. serves the following counties:
(Wisconsin counties) - Brown, Calumet, Door, Florence, Fond du Lac, Forrest, Kenosha, Kewanee, Langlade, Manitowoc, Milwaukee, Marinette, Oconto, Outagamie, Ozaukee, Racine, Shawno, Sheboygan, Walworth, Washington, Waukesha, Waupaca, Winnebago; (Michigan counties) - Alger, Baraga, Chippewa, Delta, Dickenson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, Schoolcraft.

After nearly 40 years of existence, the Milwaukee Section decided that it was time for its history to be written up. With this end in mind, a Historical Committee was set up in 1949 and it was entrusted with the task of compiling the history. Unfortunately, when an intensive search was made it was found that all of the early records of the section, covering the period from 1910 to about 1936 were missing, and no trace of them could be found. Thus, in the history that follows whatever refers to that period was gathered by personal interviews with those whose memories carried back to those days, and from reading magazine and newspaper articles of that period. From 1936 onward the amount of material available was voluminous.

After it was organized, the Milwaukee Section affiliated itself with the local Engineers' Society of Milwaukee. The original agreement between them has been transcribed in Appendix II at the end of this compilation. The official organ of the Engineers' Society. "Milwaukee Engineering", handles the publicity for the Milwaukee Section.

In 40 years the Milwaukee Section has grown to be a large and progressive organization and ranks  $10^{\rm th}$  in the number of members as compared with the other sections. The total membership, excluding student members and local members, is well over 700. For comparison, the total membership of the entire Society is about 32,000.

This history has been brought up-to-date; in the future, it has been decided to maintain a permanent Historical Committee to keep it so.

This project was compiled and written up by Mr. N. H. Choksy and Mr. A. J. Khambata, senior students at the Milwaukee School of Engineering, under the guidance of Mr. H. F. Loeffler, Chairman of the Historical Committee. This also served as the joint thesis of Mr. Choksy and Mr. Khambata and was presented as the prerequisite for their degree of Bachelor of Science in Electrical Engineering from the School.

The Historical Committee wishes to acknowledge the assistance of the members who gave up much of their time in supplying the facts and details. In particular, thanks are due to Mr. E. T. Sherwood of Globe-Union Incorporated, Mr. C.P. Feldhausen of Cutler-Hammer Incorporated, and Mr. C. Weipking, Secretary of the Engineer's Society of Milwaukee, for making available the existing records for reference; and to the photographic departments of the Allis-Chalmers Manufacturing Company, Cutler-Hammer Incorporated, and the A. O. Smith Corporation for some of the photographs appearing in this history.

Historical Committee, Milwaukee Section, A.I.E.E.

April, 1950 Milwaukee, Wisconsin

Harold F. Loeffler, Chairman Nasli H. Chokay Adi J. Khamata

### THE DATE OF ESTABLISHMENT

The Milwaukee Section of the American Institute of Electrical Engineers was formally established here in Milwaukee, Wisconsin on:

The 11<sup>th</sup> day of February, 1910

#### **CHARTER MEMBERS**

It was originally intended to include a complete list of the Charger Members of the Milwaukee Section. However, this was not possible because the earlier records of the Section were not available. The following men are known to be some of the Charter Members:

MR. F. W. ELLS

MR. R. H. PINKLEY

MR. G. G. POST

MR. W. h. POWELL

MR. A. SIMON

MR. L. L. TATUM

#### **MEMBERSHIP**

The 1949 issue of the Year Book of the American Institute of Electrical Engineers gives the total membership of 688 as of June 1, 1949. The membership as given there breaks down to the following classification:

Fellows	30
Members	186
6-Year Associates	148
Associates	324
Total 688	

This total does not include student members, or local members. The student membership is at present around 320. It would be safe to state that at the present time the total membership, including all of the above classifications, stands over 1000.

#### **CONVENTIONS IN MILWAUKEE**

The City of Milwaukee and the Milwaukee Section of the American Institute of Electrical Engineers have been hosts to three national conventions of the A. I. E. E. The three conventions were:

- 1. The Summer General Meeting of 1906
- 2. The Summer General Meeting of 1937
- 3. The Fall General Meeting of 1948

On the following pages is given information on these three meetings. The dates and places of the meetings and the highlights of the technical talks given are described.

## **The Summer General Meeting of 1906**

This meeting was the twenty-third convention in the history of the National Institute. It was held in Milwaukee on the days May 28 through May 30. The attendance was rather slim, less than 200 members and guests being registered. A probably reason has been given for this: A trip to England had been proposed for June, 1906 and many of the Members were preparing to go there

and hence could not get away to attend this convention in Milwaukee.

The first of two sessions was held in the then partially-completed Public Service Building. This session consisted of two meetings for technical talks and discussions. The second session, consisting of three meetings, was held in the University Building.

On the opening day there was an informal reception at the Hotel Pfister. The opening address was given by retiring President Dr. Schuyler Skaats Wheeler, of Ampere, New Jersey, who spoke on "Engineering Honor." Following up on the theme of this Presidential address, Past President Charles P. Steinmetz, of Schenectady, New York, proposed to set up a Committee to draw up a code of Professional Ethics. This motion was seconded by Professor D. C. Jackson of Madison. Past President Charles F. Scott, of Pittsburgh, Pennsylvania, spoke in support of this proposal. As a result, in October 1906 such a committee was set up, and presented their draft of a Code of Ethics on May 1907. Then, in 1911, 1912, and 1922 the code went through many discussions and finally on March 1922, the Code was accepted as it stands now, and substantially as it was first presented in Milwaukee 16 years before.

Of the speakers at the technical meetings at this convention, there were two from Milwaukee. The first was Mr. A. W. Berresford who spoke critically on the Standardization Rules that were being offered for discussion by a Standards Committee. He pointed out many defects in the Rules and gave examples of their shortcomings. Mr. Berresford was later to become the first and as yet the only President of the National Society from the Milwaukee Section, during the year 1920-1921. The other speaker from Milwaukee was Mr. W. L. Waters who presented a paper entitled "Shunt- And Compound-Wound Synchronous Converters for Railway Work."

Seventeen other papers were also presented, and are listed below:

- 1. "A Repulsion-Induction Motor" by Mr. M. Milch of Schenectady.
- 2. "Comparison of Two and Three-Phase Motors" by Mr. B. T. McCormick of Cincinnati, Ohio.
- 3. "Heat Tests on Alternators" by Mr. S. Senstius of Cincinnati.

- 4. "The Self-Synchronizing of Alternators" by Professor F. Morgan Brooks and Mr. M. K. Akers of Urbana, Illinois.
- 5. "D. C. Motor Design as Influenced by the Use of the Interpole" by Mr. C. H. Bedell of Bayonne, New Jersey.
- 6. "Some Experiences with Lightning and Static Strains on a 33,000-Volt Transmission System" by Mr. Farley Osgood of New Milford, Connecticut.
- 7. "Methods of Testing Protective Apparatus" by Professor E. E. F. Cgeighton of Schenectady.
- 8. "Protective Apparatus for Lighting and Static Strains" by Mr. H. C/ Wirt of Schenectady.
- 9. "Magnetic Properties of Electrolytic Iron" by Professor C. F. Burgess and Mr. A. H. Laylor of Madison, Wisconsin.
- 10. "Measurement of Temperature by Electrical Means" by Mr. E. F. Northrup of Philadelphia, Pennsylvania.
- 11. "Interurban Test-Car of the University of Illinois" by Mr. T. M. Gardner of the University of Illinois.
- 12. "Economies Derivable from the Use of Relatively Small Water-Powers of Low Head in the Middlewest" by Professor D. C. Jackson of Madison, Wisconsin.
- 13. "Some Fundamental Characteristics of Mercury-Vapor Apparatus" by Mr. P. H. Thomas of New York.
- 14. "The Art of Inventing" by Mr. E. J. Prindle of New York.
- 15. "Some Notes on the Lighting of Churches" by Mr. E. R. Weeks of Kansas City, Missouri.
- 16. "Electrical Connections for Power-Houses" by Mr. D. B. Rushmore of Schenectady.
- 17. "Safety Devices for Steam Engines, Turbines, and Motors" by Mr. C. M. Hemingway of New York.

All the papers were subjected to spirited discussions and criticisms. Past President C. P. Steinmetz was a leading participant in all of the discussions.

As a matter of interest to the Milwaukee Section, the following is quoted from the June 7, 1906 issue of the "Engineering News".

"A report was made to the convention by the Committee on Local Organizations, Mr. C. F. Scott, Chairman. The view was expressed that the local branches of the Institute have now become a permanent factor of value

in the life of the organization, that the past three years of local branch administration had been based on tentative plans and principles, and that it is not time to initiate a more advanced scheme of management. No definite recommendations were made. Major G. O. Squier (Fort Leavenworth, Kansas), formerly active in the San Francisco branch, and Mr. K. B. Miller (Chicago) of the Chicago branch, gave some views of local branch work from the inside. "While the discussion was interesting in its bearing on local branch administration, it led to no action, and the subject was dropped."

It is believed that it was this discussion at the Summer General Meeting of 1906 that gave the necessary impetus toward starting a Section in Milwaukee in 1910.

The convention was ended on the evening of Wednesday, May 30 with a planked whitefish dinner at Whitefish Bay.

### **The Summer General Meeting of 1937**

In 1937 Milwaukee was the host to the 53<sup>rd</sup> Annual Summer Convention of the American Institute of Electrical Engineers. It was held just 31 years and three weeks after the Summer General Meeting of 1906, on June 21-Jun 25, 1937. The headquarters for this convention was the Schroeder Hotel. There was a total registration of 1067 members and guests. This was the highest attendance at a Summer Meeting since 1616 registrations were recorded at the Summer General Meeting of 1923 held at Swampscott, Massachusetts.

Mr. K. L. Hansen, general chairman for this meeting, opened the first session on Monday morning, June 21, 1937, at the Schroeder Hotel, in the Crystal Ballroom. He gave a brief resume of the coming events and then introduced the honorary chairman - General Otto H. Falk as "an outstanding Milwaukee personality... for many years associated with electrical developments on a large scale." General Falk spoke for a short time and then turned the gavel over to Institute President MacCutcheon who presided over the annual business meeting. President MacCutcheon's response was given in an address entitled "The Engineer of Tomorrow." In this he pointed out that "the engineer of tomorrow should be guided, but not limited, by the record of the past."

During the business meeting President MacCutcheon presented the Institute prize awards to Mr. P. S. Millar and Professor H. E. Edgerton who were the only two recipients present. The Lamme Medal for 1936 was presented to Doctor Frank Conrad of the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pennsylvania.

The central theme of this convention was the relation of Engineers and Politics. The first technical session was opened by Dr. Ralph E. Flanders, past president of the American Society of Mechanical Engineers, whose address was titled, "The Engineer in a Changing World." During the session Professor Whitehead of Johns Hopkins pointed out "the absurdity of the Institute engaging in political affairs 'without bias'."

The highlight of this convention occurred on the evening of June 22, 1937, when Doctor Vannevar Bush, who was at that time vice-president and dean of the school of engineering of the Massachusetts Institute of Technology, addressed the gathering on the subject "The Engineer and His Relation to Government." To ensure a good attendance to Dr. Bush's lecture the Engineers' Society of Milwaukee dispensed with its regular June meeting and urged all of its members to attend the lecture. Invitation to the lecture were also were also sent to the members of the Madison and Chicago Sections of the A.I.E.E.

Milwaukee members who presented technical papers included:

- 1. Mr. C. W. Kuhn "A.C. Motor Protection"
- 2. Mr. Carroll Stansbury "Impulse Operation of Magnetic
  Contactors"
- 3. Dr. J. F. H. Douglas "End-Connection Reactance of Electrical Machinery"
- 4. Mr. F. A. Kartak "What a University Has Done Toward Protecting the Eyesight of Its Students

Some 41 papers were presented at this convention and they were broken down into the following classifications: Power Transmission, General Power Applications, Instruments and Measurements, Education, General Session, Conference on Electrical Apparatus for 3-phase Arc Furnaces, Lightning Protective Equipment, Power Generation and Electrical Machinery, Illumination, Conference on Field Problems, Insulation Coordination, Vibration and Balanced, and Communication and Research.

Many of the members and guests took advantage of their visit to Milwaukee and made field trips to the industrial concerns in and around Milwaukee. Some of the places visited were the Allis-Chalmers Mfg. Co., Cutler-Hammer Inc., A. O. Smith Corp., Allen-Bradley Co. Globe-Union Inc., Harnischfeger Corp., Schlitz Brewery, Milwaukee Electric Railway and Light Co., and the Port Washington Station.

On the entertainment side, there was a luncheon at the Allis-Chalmers Club House. In addition, a committee under the leadership of Mrs. A. C. Flory provided a wide variety of events for the women. These included parties, teas, shopping expeditions, golf, boat trips on Lake Michigan, a visit to Schlitz Brewery, and a dinner-dance at the President's Reception. To sum up, the visiting members and guests were given a full dose of that famous Milwaukee product - Gemütlichkeit.

A special post-convention trip was scheduled to Wisconsin Dells. The trip, attended by many, included a visit to the dells, a visit to Devil's Lake, a chicken dinner, a tour of the University of Wisconsin campus, and a dinner in Madison.

### The Fall General Meeting of 1948

The convention was held during the days October 18-22, 1948. As for the 1937 Summer Meeting the headquarters was the Schroeder Hotel. There was a total registration of over 1,500.

The meeting was opened by Mr. E. E. Seeger, chairman of the Midwest general meeting committee, who introduced Milwaukee's Mayor Frank P. Zeidler and Institute President Everett S. Lee. Mayor Zeidler welcomed the visiting delegates and gave a brief account of the industrial growth of Milwaukee with a special accent on the electrical industries. President Lee's address was about "Our Institute" in which he gave an account of the good fellowship that he had found on his visits to various Sections around the country. He also gave a short history of the bigger electrical plants in Milwaukee such as the Allis-Chalmers Mfg. Co. and the Falk Company, and others. He stressed that these companies had had a great deal to do with the major developments in the United States, in South America, and in other parts of the world. He have as examples the Hoover Dam, the Panama Canal,

the plants at Niagara Falls, the roads in Spain. President Lee spoke warmly of three of Milwaukee's most famous sons: General Billy Mitchell, General Douglas MacArthur, and Connie Mack. In conclusion he advised that the affairs of the Institute were in good shape and that the budget for the following year could be balanced without raising the membership dues.

Nearly 130 technical papers were presented during the five days of the convention covering 34 separate fields of work and study.

Milwaukee members who presented papers at this convention include the following:

- 1. Mr. L. C. Aicher, Jr. of Allis-Chalmers Mfg. Co.
- 2. Mr. S. R. Durand of Allis-Chalmers Mfg. Co.
- 3. Mr. J. B. Rice of Allis-Chalmers Mfg. Co.
- 4. Mr. R. E. Walters of Allen-Bradley Company
- 5. Mr. L. H. Matthias of Allen-Bradley Company
- 6. Mr. W. J. Herziger of Allis-Chalmers Mfg. Co.
- 7. Mr. J. F. Sellers of Allis-Chalmers Mfg. Co.
- 8. Mr. L. T. Rosenberg of Allis-Chalmers Mfg. Co.
- 9. Mr. T. B. Montgomery of Allis-Chalmers Mfg. Co.
- 10. Mr. T. H. Bloodworth of Allis-Chalmers Mfg. Co.
- 11. Mr. N. L. Schmitz of Cutler-Hammer Inc.
- 12. Mr. D. L Pettit of Square D Company
- 13. Mr. C. J. Fechheimer, Consulting Engineer
- 14. Mr. G. E. Jansson of Allis-Chalmers Mfg. Co.
- 15. Mr. A. Ewy of Allis-Chalmers Mfg. Co.
- 16. Mr. J. H. Michael of Allis-Chalmers Mfg. Co.
- 17. Mr. T. G. Bank of Allis-Chalmers Mfg. Co.

As before field trips were arranged to all the major electrical plants in and around Milwaukee with the usual good attendance. A trip of special interest was to the Milwaukee School of Engineering to see the hydraulic model of a liquid-cooled alternator, a development of Mr. Carl J. Fechheimer.

A large program of entertaining events was scheduled for all the registrants as well as special events for the ladies. These included a luncheon and style show for the ladies at the Milwaukee Country Club, courtesy of Cutler-Hammer Inc. There was a banquet and informal dance at the Hotel Schroeder Crystal Ballroom and a Milwaukee Gemütlichkeit at the Allen-Bradley Company's Lynde Hall.

In concluding it might be mentioned that this was the second Fall General Meeting ever to be held by the A.I.E.E. The first was held in Chicago, Illinois in 1947.

#### STUDENT BRANCHES OF THE MILWAUKEE SECTION

There are two student branches in the Milwaukee Section: The Milwaukee School of Engineering Branch and the Marquette University Branch.

The first one to be authorized was the Milwaukee School of Engineering Branch. On September 20, 1917, through the efforts of Dean J. D. Ball, and through the courtesy of the administration of the A.I.E.E., the engineering students at the M.S.O.E. were extended the privilege of enrolling as student members into the Society. In August 1919, the Board of Directors of the A.I.E.E. authorized the establishment of a student branch at the M.S.O.E. The first meeting was held on Edison Day, October 21, 1919. Since then the M.S.O.E. student branch has flourished and at present has a total of over 220 student members. Most of the student members who graduate transfer their membership to the national society as Associate members. The branch holds regular monthly meetings where the speaker of the evening is usually a well-known representative from some industrial firm in or out of Milwaukee, who speaks on a technical subject. In addition, a student speaker is also scheduled for the evening. Students are encouraged to present papers and there are always plenty of volunteers. After the meetings refreshments are usually served.

The M.S.O.E. branch sends its representative to the Student Conferences held for the Midwest every year by the A.I.E.E. These men are chosen by a group of judges, made up of members of

the faculty on the basis of written and oral presentations of a technical paper. Competition is keen for this honor. The M.S.O.E. representative for 1949, Mr. Vernon Fowler, won third place at the Ann Arbor, Michigan Conference of 1949. His paper dealt with a mathematical explanation of the triggering action of multivibrators.

The Marquette University branch was organized in 1922 through the efforts of Dean Kartak, who became the first faculty counselor. The Branch holds meetings at regular intervals and follows more or less the same procedure as outlined above for the M.S.O.E. branch. The Marquette branch has had two of its student members as prize winners: In 1928 Mr. Rolun Schaeffer won the \$100 National prize for a student technical paper; and in 1947 Mr. Howard McDonald won the \$25 District prize at the Student Conference at Notre Dame, Indiana.

The present faculty counselors for the two student branches are:

Mr. R. J. Ungrodt for the Milwaukee School of Engineering Branch.

Mr. E. W. Kane for the Marquette University Branch.

#### TECHNICAL DISCUSSION GROUPS

Technical groups were started within the Milwaukee Section in 1940, mainly through the efforts of Mr. K. L. Hansen, Mr. W. E. Crawford, and MR. C. J. Fechheimer. At that time three groups were formed: Power Applications and Control, Electrical Machinery, and Electronics. The first chairmen for these three groups were Mr. K. L. Hansen, Dr. S. H. Mortensen, and MR. W. Richter. As provided for in the By-Laws of the Milwaukee Section a Co-ordinating Chairman was also chosen - Mr. C. J. Fechheimer.

In 1943 a fourth group was formed - the Basic Science Group. To avoid too much of a call on the Milwaukee members' time, it was decided that this new group should not have a separate time for its meetings but that each of the three older groups should give up one of their regular meeting nights for the new group. Thus each of the four groups had about three yearly meetings, instead of four yearly meetings for the three groups.

The last group, on Transmission and Distribution, was formed in 1944. At the present time the above-mentioned five groups are the only ones existent in Milwaukee.

Technical groups are formed when a sufficient number of members, who are all interested in a particular field of electrical engineering, decide that they should hold regular meetings to discuss their specialty. This is an important criterion for the success of such groups; the members who decide to form one should back up the group by good attendance of all meetings. Many times experts in the particular field are called from outside Milwaukee to deliver papers to the members of the group. It is a waste of time for these busy men, and also for the group members, if the attendance to the lectures is poor.

Many benefits can be derived from having Technical Groups within the Section:

- 1. An opportunity is provided for the exchange of views on highly technical phases of electrical engineering by men specializing in particular fields.
- 2. Younger engineers get a chance to meet with experts in their own field and also get experience in the presentation of technical papers and discussions.
- 3. A member who has developed a new technical idea can present it among men who have a sufficiently good background to offer constructive criticism.
- 4. Student members, who are always invited to all meetings, derive an incalculable amount of benefits by attending the various lectures.
- 5. By appealing to specific members who interests lie in a particular field, the meetings of technical groups give a greater latitude to the Section in arranging general meetings of interest to all the members.

Each of the five technical groups hold about four meetings each per year with an average attendance of 50 at each meeting.

#### **EDUCATIONAL COURSES**

From time to time the Milwaukee Section of the American Institute of Electrical Engineers arranges to hold educational courses for the benefits of its members. Often it was found that a wider attendance was secured, with an accompanying increase in efficiency, if the courses were opened to the members of the Milwaukee Section of the Institute of Radio Engineers as well as to anyone who was not a member of either organization but was sufficiently interested to enroll in such courses.

The courses are financed by means of a fee collected from each person enrolled in the course. The fee varies from course to course and is usually in the neighborhood of \$2.50 to \$3.50 for members of either society and \$5.00 to \$6.00 for non-members.

The following list gives a cross-reference of the types of courses that have been offered in the last few years:

- 1. Professor J. F. H. Douglas of Marquette University and the late Mr. A. L. Aklund of Louis-Allis Company, conducted a seminar on *Tensor Analysis* in the winter of 1944.
- 2. A.C. and D.C. Motors and Fundamentals of Their Control was a course offered by Mr. P. B. Harwood of Cutler-Hammer Incorporated in the spring of 1947. There was an enrollment of 87.
- 3. From the Electrical Department of the Northwestern Technological Institute came Professor R. W. Jones to deliver 6 lectures in the fall of 1947 to 81 enrollees on Regulators and Servomechanisms.
- 4. One hundred and twenty three persons attended a *Symposium* on *Transmission* in the latter part of 1947.
- 5. Mr. W. R. Mehaffey gave three lectures on *Electronic Amplifiers* to 55 persons in the spring of 1948.

These educational courses have enjoyed great success and wide interest in the Milwaukee Section and more will be held.

The fees collected go toward paying for the transportation of the lecturer, dinner for the lecturer, printing and mailing of notices, and other such expenditures. While the speaker receives no direct remuneration for his services, the Board of Directors of the Milwaukee Section usually recognize the efforts of the speaker by sending him a Government Bond of an appropriate amount. Any excess amount, after all the expenditure has been accounted for, is divided between the two participating societies.

Apart from the inherent advantages of educational courses, an indirect advantage is that they serve to promote an increase in membership in the societies.

#### **PROGRAMS OF MEETINGS**

In addition to the Annual Meeting the Milwaukee Section holds monthly general meetings, regular technical meetings of technical groups, at least one Ladies' Night meeting each year, and occasional dinner meetings.

Prior to 1946 the meeting places were spread all over Milwaukee. But in September 1946 the new building of the Engineers" Society of Milwaukee was officially opened. Since then most of the meetings are held there. However, the following list gives the meeting places most frequently used:

- 1. For general and technical meetings
  - a. The Engineers' Society of Milwaukee Building
  - b. The Public Service Building
  - c. The Marquette University Medical Auditorium
  - d. The Milwaukee School of Engineering
- 2. For dinner meetings
  - a. The Pfister Hotel
  - b. The Stratford Arms Hotel
  - c. The Allis-Chalmers Club House
  - d. The City Club
- 3. For other miscellaneous meetings
  - a. The Allen-Bradley Auditorium
  - b. The Schlitz Brown Bottle

- c. The Pabst Blue Ribbon Hall
- d. The Blatz Auditorium

Most of the technical meetings are sponsored by one or more of the five technical groups, depending upon the subject. Some meetings are held under joint sponsorship with the Milwaukee Section of the Institute of Radio Engineers, the Engineers' Society of Milwaukee, or both. The general meetings and the Ladies' Nights are, of course, sponsored by the main section.

The schedule of meetings for the fiscal year are printed on a small leaflet and distributed to all the members. In addition, the schedule of events is supplemented by a list of the names of the officers and the committee-men for the year. Notices of individual meetings are sent to all members holding a grad of membership higher than that of Student on specially printed post cards. The various industrial concerns and the schools in Milwaukee are further supplied with posters illustrating the forthcoming meetings for display on their notice boards.

The Milwaukee Section holds, on an average, 25 to 30 meetings every year. The records show that only a very few other sections exceed this average, and even then by only a small margin.

The attendance at meetings ranges from excellent to poor, the subject and the weather being the two great decisive factors. When refreshments are served at the end of the meetings, such as coffee, doughnuts, beer, pretzels, etc. the attendance is usually good.

At each meeting breast-pocket cards are issued to each person attending on which he is requested to write his name and professional affiliations. This facilitates mutual identification among the members. Each card is also provided with space wherein the member may write his comments on the lecture or on the meeting in general.

Ladies' Nights and the dinner meetings are always a success and are eagerly awaited events.

The speakers at all types of meetings are invited from all over the country as well as from Milwaukee.

### **APPENDIX I**

#### THE FOX-RIVER VALLEY SUBSECTION

The area served by the Milwaukee Section being fairly large, it was found that many members living and working far from the city of Milwaukee did not receive their full share of the benefits of membership. It became inconvenient for these members to attend all the meetings and functions held in Milwaukee, due to distance as well as cost of transportation.

In consideration of this, the officers of the Milwaukee section, at their meeting of July 10, 1947, held at the Conway Hotel in Appleton, Wisconsin, voted unanimously to form a subsection. It was decided to name the subsection "The Fox-River Valley Subsection". Also at this meeting the following men were elected as officers of the new subsection:

Mr. Arthur E. Carlson as Chairman

Mr. Jesse W. Pomazal as Sectretary-Treasurer

This subsection serves the following communities: Appleton, Fond du Lac, Green Bay, Kaukauna, Kohler, Manitowoc, Menasha, Neenah, and Oshkosh.

September 18, 1947 was a great day; the newly-born subsection held its first official meeting. Seventy two people gathered together at the Conway Hotel in Appleton for this event.

#### **APPENDIX II**

AGREEMENT BETWEEN THE ENGINEERS' SOCIETY OF MILWAUKEE AND THE MILWAUKEE SECTION OF THE A.I.E.E

The Engineers' Society of Milwaukee proposes to allow the Milwaukee Section of the A.I.E.E. the unrestricted use of its permanent rooms as headquarters; also the use of its lecture room for the public meetings at least twice a year; also to

provide a stenographer who shall be available at certain stated times to assist the officers in the work of the Section and to prepare and mail notices of general or committee meetings, etc.; also to send to all members of the Milwaukee Section notices to all public meetings of the Engineers' Society or any other Societies which may be associated with it.

In consideration of the above, the Milwaukee Section shall arrange to send notices and invitations to its public meetings to all the members of the Engineers' Society and any other societies associated with it; shall arrange that a member of the programme Committee of the Engineers' Society shall be an ex officio member of its Programme Committee, (this provision will acquaint the Engineers' Society Committee with the plans of each allied Society and allow suitable arrangement of dates); and shall pay to the Engineers' Society an annual fee of Three Dollars (\$3,00) per member; this to be due and payable in advance in equal installments on December 1<sup>st</sup> and June 1<sup>st</sup> of each year, and to be based on the membership on record on the directly preceding November 1<sup>st</sup> and May 1<sup>st</sup>, respectively.

This proposition when signed by the President of the Engineers' Society of Milwaukee and the Chairman of the Milwaukee Section of A.I.E.E. to be a binding contract for one year from the date hereof.

Thos. S. Watson

President, Engineers' Society of Milwaukee

W. H. Powell

Chairman, Milwaukee Section A.I.E.E

Date: 3-17-1910

#### APPENDIX III

#### ADDRESSES AND TELEPHONE NUMBERS

Many places in Milwaukee have been mentioned in the foregoing history; while these may be familiar landmarks to those living in Milwaukee, people from out of town would be lost. For the use of such, a list of the addresses and telephone numbers of the places most frequently mentioned is appended below:

## **Allen-Bradley Company**

136 Greenfield Avenue Milwaukee, Wisconsin

Telephone: MItchel 5-5151

## Allis-Chalmers Mfg. Company

1126 South 70<sup>th</sup> Street West Allis, Wisconsin

Telephone: SPring 4-3600

## A.O. Smith Corporation

3533 North 27<sup>th</sup> Street Milwaukee, Wisconsin

Telephone: UPtown 3-3000

### **Blatz Brewery**

1120 North Broadway Milwaukee, Wisconsin

Telephone: MArquette 8-5600

## **City Club of Milwaukee**

756 North Milwaukee Street Milwaukee, Wisconsin

Telephone: MArquette 8-4213

### **Cutler-Hammer Incorporated**

315 North 12 Street Milwaukee, Wisconsin

Telephone: MArquette 8-7800

### **Dynamatic Corporation**

3307 14<sup>th</sup> Avenue Kenosha, Wisconsin Telephone: 6172

## **Globe-Union Incorporated**

900 East Keefe Avenue Milwaukee, Wisconsin

Telephone: WOodruff 2-9200

### **Harnishfeger Corporation**

4400 West National Avenue Milwaukee, Wisconsin

Telephone: MItchel 5-1400

## **Line Material Company**

12<sup>th</sup> and Madison (Corner) South Milwaukee, Wisconsin

Telephone: SM 500

## **Louis-Allis Company**

427 East Stewart Street Milwaukee, Wisconsin

Telephone: SHeridan 4-2510

### **Marquette University**

1515 West Wisconsin Avenue Milwaukee, Wisconsin

Telephone: DIvision 4-1000

## **Marquette University Medical School**

561 North 15<sup>th</sup> Street Milwaukee, Wisconsin

Telephone: DIvision 4-1000

## **Milwaukee Country Club**

Range Line Road Milwaukee, Wisconsin

Telephone: FLagstone 1-9224

## Milwaukee School of Engineering

1020 North Broadway Milwaukee, Wisconsin

Telephone: DAly 8-4250

### **Pabst Brewery**

917 West Juneau Avenue Milwaukee, Wisconsin

Telephone: MArquette 8-0230

### **Pfister Hotel**

424 East Wisconsin Avenue Milwaukee, Wisconsin

Telephone: MArquette 8-6380

## Schlitz Brewery

235 West Galena Street Milwaukee, Wisconsin

Telephone: MArquette 8-0103

### Schroeder Hotel

509 West Wisconsin Avenue Milwaukee, Wisconsin

Telephone: MArquette 8-7250

## **Square D Company**

4041 North Richards Street Milwaukee, Wisconsin

Telephone: EDgewood 2-2000

### **Stratford Hotel**

1404 West Wisconsin Avenue Milwaukee, Wisconsin

Telephone: DIvision 4-0100

## **Wisconsin Electric Power Company**

Public Service Building 231 West Michigan Avenue Milwaukee, Wisconsin

Telephone: DAly 8-6600

## **Wisconsin Telephone Company**

722 North Broadway Milwaukee, Wisconsin

Telephone: EXchange 3-9300