

The Institute of Radio Engineers

YEAR BOOK

FOR

1916



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DISTRIBUTION OF THE MEMBERSHIP

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(INC.)

ONE HUNDRED AND ELEVEN, BROADWAY
NEW YORK CITY

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Changes in addresses of the members, or other necessary information,
should be sent to the Secretary, The Institute of Radio Engineers, 111 Broad-
way, New York City.

INTRODUCTION

In view of the remarkable growth in membership and increase in the activities of The Institute of Radio Engineers during 1915, the Board of Direction has deemed it proper to submit to the membership of the Institute and others interested in its activities, the following account of its aims and accomplishments.

The Board of Direction having authorized such action by resolution, the Secretary has prepared the information contained in this publication. It has been attempted to give such detailed information as will enable the membership and others interested to gain a clear idea of what the Institute stands for and how it may best be assisted.

The Board of Direction expresses to the membership its appreciation of their earnest cooperation in the activities of the Institute; a cooperation without which the present success of the Institute would have been impossible.

It ventures to hope that this kindly attitude will continue, and that the Institute will increasingly fulfill the worthy aims of its founders.

The Institute of Radio Engineers

YEAR BOOK

FOR

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GENERAL INFORMATION

Purpose of the Institute

The Institute of Radio Engineers is the only society representing the radio engineering profession. The remarkable progress in the art of communicating thru space since 1900 has made eminently desirable the formation and development of an organization of this character. The future advance of the radio profession will owe much to the men who founded The Institute of Radio Engineers, and those who have carried on its activities. These men have foreseen the possibilities of such an organization: an organization which has fostered and encouraged the development of this highly useful art and has afforded ample opportunities for its members to meet and to discuss radio problems. It has had a marked educational as well as a development value. It is clear that the Institute will be no small factor in the future progress of the radio art, in the technical advancement of its individual members, and the elevation of the radio profession as a whole.

History of the Institute

Previous to the formation of The Institute of Radio Engineers, two of the most influential organizations in the radio field, were the Society of Wireless Telegraph Engineers of Boston and the Wireless Institute of New York. To avoid inevitable duplication of effort and to increase their usefulness by co-operation, these societies considered consolidation. The consolidation was successful, and on May 13, 1912, The Institute of Radio Engineers was formally established with a membership of less than fifty (50). Before the end of 1915, the membership had risen to nearly one thousand (1,000). This remarkable increase in membership, twenty fold in less than four years, is

significant of the need for the Institute and the way in which it has met this need.

Eligibility to Membership

The membership of the Institute consists of five grades: Honorary Members, Fellows, Members, Associates and Juniors. The qualifications for each of these grades are given in detail in Article II of the Constitution given on pages 26 and 27 of this publication.

Applications for Membership

All applications must be made on forms which are provided for that purpose and which can be obtained on application from the Secretary at the office of the Institute, 111 Broadway, New York City. These forms provide a space for the required reference to five Fellows, Members or Associates and for a brief, orderly record of the scientific, professional or commercial experience of the candidate. If the applicant is not personally acquainted with five Fellows, Members or Associates, he may refer to non-members who shall preferably be members of other engineering organizations, or known to prominent members of The Institute of Radio Engineers. In this case, members of the Board of Direction will personally endorse his application, provided the communications received from his references are satisfactory.

Entrance and Transfer Fees and Annual Dues

The fees to the various grades of membership in the Institute are as follows:

Entrance Fees

For Fellows.....	\$10.00	For Associates.....	\$3.00
For Members.....	5.00	For Juniors.....	1.00

Transfer Fees

From Member to Fellow.....	\$2.50
From Associate to Member.....	3.50
From Junior to Associate.....	0.50

Annual Dues

For Fellows.....	\$10.00	For Associates.....	\$4.00
For Members.....	7.50	For Juniors.....	3.50

The entrance fee covers admission to the Institute. The transfer fee covers change from one grade to another and the amount corresponds to the difference between the dues of the grades in question. The annual dues include sub-

scription to the *Proceedings of The Institute of Radio Engineers* as well as all other printed matter furnished to the general membership. Such publications include certain Committee Reports, Year Books, Notices, Special Notices, Nomination and Election ballots.

A person elected after July first of any year is required to pay one-half the dues for that year.

Honorary members are exempt from all payments.

Membership

The membership of the Institute consists of scientists, engineers, professional and commercial men engaged in the study, development and practice of the radio science and art, and others who thru their business or interest are concerned with the field of radio communication.

All types of workers engaged in the radio field and in allied fields are represented in the Institute. Among the membership may be found inventors; authors; consulting and practising engineers; professors of physics and engineering; chief engineers; managers; executive officers of commercial organizations; officers and representatives of many branches of the Governments; professional and amateur investigators; professional and amateur operators; as well as others to whose interest it is to keep abreast with the development of radio communication.

Detailed Growth of the Institute

The details of the increase in membership of the Institute follow:

Membership Jan. 1, 1912,	
The Society of Wireless Telegraph Engineers.....	43
Membership Jan. 1, 1912, The Wireless Institute....	27
Membership May 13, 1912,	
The Institute of Radio Engineers.....	45
Membership Jan. 1, 1913,	
The Institute of Radio Engineers.....	109
Membership Jan. 1, 1914,	
The Institute of Radio Engineers.....	231
Membership Jan. 1, 1915,	
The Institute of Radio Engineers.....	633
Membership Jan. 1, 1916,	
The Institute of Radio Engineers.....	984

It is noteworthy that for the year 1915 the increase of membership has been 55 per cent. It is believed that this rate of

increase can be maintained if the present membership exerts itself actively in advising others of the advantages of membership in the Institute.

Advantages of Membership

All members of the Institute are furnished, without extra expense, copies of all issues of the *Proceedings of The Institute of Radio Engineers*. At the present time, six issues are published per year. The most recent developments and discoveries are clearly presented in its pages; and the study of its contents has proven to be a most successful method of following progress in the radio field.

There is also issued a report of the Committee on Standardization, which contains official definitions of all terms used in the radio field, standard methods of testing and rating apparatus, carefully drawn diagrams of standard graphical symbols and a trade name dictionary giving interesting and important information as to the mode of operation of certain commercial devices.

Members of the Institute are permitted to attend the meetings of the Institute or its Sections, to present suitable papers before such meetings, to discuss papers at such meetings, and they have further the privilege of admission for their friends to such meetings.

Members presenting papers before the Institute are entitled to ten copies of the issue of the *Proceedings* containing the paper and the discussion thereon.

The management of the Institute, so far as the election of officers and the consideration of constitutional amendments is concerned, is in the hands of the membership. It will thus be seen that the membership of the Institute exerts a beneficial influence on progress in this field.

Meetings

Meetings of the Institute are held monthly in New York, except during July and August of each year. At these meetings scientific, engineering and other papers relative to the art of radio communication are presented by members of the Institute, specially qualified to treat the subject. The presentation of the papers is followed by an open discussion. The material presented during this discussion may appear in the *Proceedings*, as also may material submitted by letter thereafter. Regular meetings of the Sections of the Institute are held in Washington, D. C., Boston, and Seattle. Details of these meetings may be

secured from the Secretary-treasurer of each Section. Their names and addresses are the following:

for the Washington Section; Mr. George H. Clark: Navy Department, Washington, D.C.;

for the Boston Section; Mr. Melville Eastham: 11 Windsor Place, Cambridge, Mass.;

for the Seattle Section; Mr. Alexis A. Paysse, Hotel Burke, Seattle, Wash.

The annual meeting of the Institute is held at New York during the month of January.

Sections

There was established in January, 1914, a Section of the Institute in the city of Washington, D. C., for the benefit of those members residing in the vicinity of the Capital. A number of papers have been presented before this Section and have been discussed. Some of these papers have duly appeared in the *Proceedings*.

In November, 1914, a Section of the Institute was established in the city of Boston, Massachusetts. Attendance at the meetings of the Boston Section has risen from about twenty (20) at the time of its formation, to one hundred and forty-three (143) at the December, 1915, meeting. A large number of papers have been presented and discussed before the Boston Section and most of these have appeared or will shortly appear in the *Proceedings*.

In February, 1915, a Section of the Institute was established in the city of Seattle, Washington. Papers have been read before this Section, and its activities are rapidly broadening.

Subscription to Publications of the Institute and Emblem

The following are the subscription rates to the *Proceedings* of the Institute:

	Per Copy	Per Volume
To Members.....	\$0.75	\$1.50
To Non-members.....	1.00	6.00
To Booksellers, Libraries, etc.....	0.75	4.50
To Foreign Non-members.....	1.10	6.60
To Foreign Book-sellers, Libraries.....	0.83	4.95

The cost of bound volumes of the *Proceedings* inclusive of the 1915 volume is as follows:

	Buckram Binding	Leather Binding
To Members.....	\$4.00	\$5.00
To Foreign Members.....	4.50	5.50
To Non-members.....	5.00	6.00
To Foreign Non-members.....	5.50	6.50

Members or subscribers to the *Proceedings* may have their copies for any year inclusive of 1915 (in good condition) bound at the following rates (postpaid):

In the United States.....	\$1.25	\$2.00
When mailed abroad.....	1.50	2.25

Copies of reports of certain committees of the Institute (for example, the Standardization Report) may be secured by non-members, at a cost set by the Board of Direction for such reports. The price of the Standardization Report for 1915 is \$0.25. Reprints of certain papers which have appeared in the *Proceedings* may be secured at a cost set by the Board of Direction, which cost can be ascertained by inquiry from the Secretary.



The emblem of the Institute may be worn by all members of The Institute of Radio Engineers. This emblem is made in the form of a badge in gold which can be secured from the Secretary of the Institute, 111 Broadway, New York City.

The badges are made in distinctive colors, these being gold with blue lettering for Fellows, blue with gold lettering for Members, maroon with gold lettering for Associates and white with gold lettering for Juniors. The initials of the member and the number of the pin are engraved on the back. The cost of any of these badges is \$2.50.

Insignia

Members of The Institute of Radio Engineers are entitled to indicate their connection with the Institute by using the following abbreviations, corresponding to their grade, after their names:

Honorary Member I. R. E.
Fellow I. R. E.
Member I. R. E.
Associate I. R. E.

Government of the Institute

The administration of the Institute is entrusted to the Board of Direction which consists of the President, Vice-Presi-

dent, Treasurer, Secretary, Editor of Publications and nine Managers. The President, Vice-President, Treasurer and Secretary are elected annually by the members of the Institute. The Editor of Publications is appointed by the Board of Direction. The term of five managers ceases each year; two of these managers are replaced by direct vote of the membership. The remaining three managers are elected by the remaining members of the Board of Direction.

The term of office of the President, Vice-President, Treasurer, and Secretary is one year, and ends at the annual meeting in January. The term of the Editor is one year but his appointment continues unless there be adverse action by the Board during its May meetings.

Fellows, Members and Associates are eligible for any of the offices of the Institute except that the Presidency and Vice-Presidency are restricted to Fellows of the Institute and the Editorship of Publications is restricted to Fellows or Members of the Institute. All members of the Institute except Juniors have full privileges of voting for officers.

Committees

To facilitate the carrying on of the work of the Institute in certain specific directions, there are appointed committees to which are delegated certain duties.

Three of these committees, in accordance with the Constitution, are standing committees. These are the Committee on Papers, the Committee on Standardization, and the Committee on Publicity.

It is the function of the Committee on Papers to secure for presentation before the membership papers which are technically and scientifically sound and which contain material of interest to the membership.

The Committee on Standardization aims to secure uniform and satisfactory usage in connection with terms used in the radio art, graphical and literal symbols, suitable methods of testing and rating, and such other matters as may properly be recommended for uniform usage by the Institute.

The Committee on Publicity is delegated to inform the public and the technical press of the work done by the Institute and of the recommendations relative to radio communication made by the Institute or its Committees. The full benefit of the activities of the Institute is thus shared with the public and the art of radio communication is served thereby.

A number of special committees of the Institute are appointed by the Board of Direction or by the President as need for such committees arises, and their functions are defined at the time of their appointment or subsequently.

REPORT OF THE SECRETARY

To The Board of Direction of The Institute of Radio Engineers:

I beg leave to submit herewith my report for the year just ended.

The growth of our organization has made it necessary to secure an office suitable for the transaction of the business of the Institute and for the meetings of the Board of Direction, which are held weekly. Accordingly, a suitable office was found at 111 Broadway, the present home of the Institute, and I am pleased to advise that the new quarters have proven entirely satisfactory.

The records of the Institute are complete and suitably arranged for ready reference. The considerable increase in our membership, with its attendant additional correspondence and accounting, has made the office of the Secretary a busy one. Complete minutes are kept of the work of all the Committees including the Standardization Committee. Minutes of the Board of Direction meetings are available in complete form. These records have proven of inestimable value in the management of the Institute affairs.

During the month of September, 1915, a Convention was held at the Panama Pacific Exposition grounds at San Francisco; where, at the joint meeting of the American Institute of Electrical Engineers and The Institute of Radio Engineers, two papers of The Institute of Radio Engineers were presented. One paper was by Professor Harris J. Ryan and Mr. Roland G. Marx on "Sustained Radio Frequency High Voltage Discharges," and the other by Mr. Robert H. Marriott on "Radio Development in the United States." These papers met with an enthusiastic reception, and the Convention was eminently successful. The thanks of the Institute is due to Mr. Robert B. Woolverton, who was Chairman of the "Committee on San Francisco Representation" and thru whose efforts all arrangements at San Francisco were made. The Institute was awarded a bronze medal, which is now at the office, 111 Broadway.

The Institute is also indebted to Mr. Louis G. Paent for his valuable efforts in obtaining advertisements for the Institute *Proceedings*. The revenue derived from this source has been

most helpful to the Institute, and the co-operation of all members is earnestly solicited in this respect.

My report would be incomplete without expressing deep gratitude to all members who have helped to secure additional members of the Institute, and to Professor Alfred N. Goldsmith who has been so generous in providing the Institute home with complete furnishings which have added materially to the comfort and appearance of the Institute office.

Respectfully,

DAVID SARNOFF,
Secretary.

REPORT OF THE TREASURER

To The Board of Direction:

The Treasurer takes pleasure in submitting the following report, showing the financial condition of The Institute of Radio Engineers on December 31, 1915. He notes with hearty satisfaction that the finances are improving almost to the point where the Institute may be considered as self-supporting, and that with the increase of dues (and the payment of them), it seems safe to expect that the Institute will reach this desirable position within the course of the coming year.

The outlook in the earlier part of the year was not very bright, with over \$1,200.00 of last year's debts to be paid as well as the immediate prospect of equipping and assuming responsibility for a business office. In spite of this heavy burden and in addition to our naturally increasing operating expenses, it is gratifying to be able to report that the Institute closes the year owing no bills and having a balance in the bank. It is obvious, however, that receipts from our regular sources of income (even if all dues were paid) would not have taken care of the situation. It is therefore not only on behalf of the Institute but out of his personal appreciation for relief from considerable anxiety that he most heartily thanks the good friends and loyal members whose names appear elsewhere, who have donated money and fixtures more than enough to start the new year with a clean slate. He trusts that this generosity, which makes possible so satisfactory a financial report will not prevent the membership from realizing that the Institute is not yet self-supporting. It will be necessary to have the co-operation of the entire membership; first in the securing of additional members, and second, in the prompt payment of dues.

He wishes to thank, in addition to those referred to above, such others as have contributed directly and indirectly to the financial success of this year's administration; namely, our Advertising Manager, Mr. Louis G. Pacent and the advertisers whom he has secured, Dr. Alfred N. Goldsmith and those who have contributed papers to the *Proceedings*. A considerable debt of gratitude is owed to the contributors to the *Proceedings*, for it must be realized that it is the contents of our *Proceed-*

ings which makes them valuable and membership in the Institute desirable.

Finally, he wishes to express his appreciation to the entire membership for the rare privilege they have given him in working among so delightful a group of altruists who, from his observation, have rendered such valuable services to the Institute as cannot be measured in terms of "dollars and cents."

Respectfully submitted,

WARREN F. HUBLEY,
Treasurer

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

ASSETS

Cash in Bank.....	\$100.00	
Petty Cash Account.....	35.00	
		\$135.00
Accounts Receivable (Exhibit "A-1").....		
1913 Members Dues Unpaid.....	5.00	
1914 " " ".....	5.00	
1914 Associates " ".....	20.00	
1915 Fellows " ".....	90.00	
1915 Members " ".....	49.00	
1915 Associates " ".....	385.50	
1915 Juniors " ".....	34.50	
Emblems sold " ".....	21.75	
Proceedings " ".....	25.50	
		636.25
Proceedings Subscriptions unpaid (Exhibit "A-2")...		86.38
Advertisements (Exhibit "A-3") 1914.....	30.50	
" " " 1915.....	150.25	
		180.75
Inventory (Exhibit "A-4").....		
Proceedings on hand.....	870.13	
Stationery and printed forms.....	80.00	
Furniture and fixtures.....	300.00	
		1,250.13

\$2,288.51

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

LIABILITIES

Accounts Payable.....	None	
Notes Payable.....	\$100.00	
Lester L. Israel.....	50.00	
Arthur A. Hebert.....	250.00	
John Stone Stone.....	20.00	
F. Lowenstein.....	25.00	
R. A. Weagant.....	10.00	
Rollo Brown.....		\$455.00
Dues in Advance.....	46.00	
Associates 1916.....	6.00	
Associates 1917.....	4.00	
Associates 1918.....	7.50	
Members 1916.....	7.50	
Members 1917.....	16.25	
Subscriptions 1916.....		87.25
		9.00
Income Unapplied.....		
		551.25
Total Liabilities.....		32.37
Deficit at January 1, 1915.....		1,769.63
Profit for year ended December 31, 1915.....		1,737.26

\$2,288.51

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

RECEIPTS

Balance from December 31, 1914.....		\$243.92
Dues Arrears "Society of Wireless Telegraph Engineers," collected thru J. L. Hogan, Jr.....	\$22.99	
I. R. E. 1912-13 all grades.....	11.00	
1914 Members and Juniors.....	20.50	
1914 Associates.....	76.00	
Miscellaneous, Emblems, <i>Proceedings</i> and Adver- tisements.....	328.40	
		458.89
Dues, Current 1915 Associates.....	1,751.85	
1915 Members, Fellows and transfer fees.....	944.61	
1915 Juniors.....	120.00	
		2,816.46
Dues, Advance 1916 Associates.....	46.00	
1916 Members.....	7.50	
1917 Associates.....	6.00	
1917 Member.....	7.50	
1918 Associate.....	4.00	
Subscriptions 1916.....	16.25	
		87.25
Emblems, paid for.....		347.00
<i>Proceedings</i> , bindings and reprints, paid for.....		845.60
Advertisements ("B-1").....		635.13
Donations ("B-2").....		1,395.71
Overpayments (income unapplied).....		9.00
Receipts from notes payable ("A").....		110.00
Receipts from Braun-Zenneck dinner.....		118.50
Receipts from personal telephone calls.....		7.53
Miscellaneous receipts.....		5.22

\$7,080.21

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

DISBURSEMENTS

Cost of emblems.....	\$327.75
Printing <i>Proceedings</i> , reprints and binding.....	2,759.32
Miscellaneous printing.....	180.90
Meetings expense.....	59.47
Postage and telephone.....	440.77
Stationery and supplies.....	374.20
Stenographers' salary and extra clerical help.....	984.00
Miscellaneous expense.....	53.40
1914 Accounts paid.....	1,205.46
Rent—8 months.....	200.00
Typewriter.....	67.50
Cost of Braun-Zenneck dinner.....	153.50
Accountant.....	100.00
Petty Cash Account on hand in office.....	35.00
Sundry disbursements including interest, bad checks.....	38.94
Balance on hand in Bank, December 31, 1915.....	100.00

\$7,080.21

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

INCOME

1915 Dues

Associates.....	\$2,164.35
Fellows, Members and transfer fees.....	1,093.61
Juniors.....	154.50
Emblems.....	368.75
Proceedings.....	965.98

\$4,747.19

Old S. W. T. E. dues collected by J. L. Hogan, Jr..... 22.99

Donations Alfred N. Goldsmith.....	936.71
Federal Telegraph Co.....	25.00
General Electric Co.....	100.00
American Transformer Co.....	25.00
Marconi Wireless Telegraph Co. of America.....	100.00
American Telephone & Telegraph Co.....	100.00
Weston Electrical Instrument Co.....	10.00
Ernest R. Cram.....	25.00
J. H. Hammond, Jr.....	10.00
J. Hans Rogers.....	10.00
National Electric Supply Co.....	50.00
Louis R. Krum.....	2.00
Julien Barth.....	12.00
Alfred N. Goldsmith (furniture).....	150.00
Alfred N. Goldsmith (cancelled note).....	300.00
L. W. Austin " ".....	50.00
Harry Shoemaker " ".....	25.00

1,930.71

Receipts for Braun-Zenneck dinner.....	118.50
Phone refunds.....	7.53
Advertisements.....	785.38
Miscellaneous receipts.....	5.22

\$7,617.52

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

EXPENSES

Cost of emblems.....	\$327.75
Cost of printing <i>Proceedings</i>	2,759.32
Miscellaneous printing.....	180.90
Meetings expense.....	59.47
Postage and telephone.....	440.77
Stationery and supplies.....	374.20
Rent--8 months.....	200.00
Stenographers' salary and extra help.....	984.00
Miscellaneous expense.....	53.40
Printing last year (not included in Accounts Payable).....	95.34
Typewriter.....	67.50
Cost of Braun-Zenneck dinner.....	153.50
Accountant.....	100.00
Interest, bad checks, shortage in exchange.....	38.94
Bad debts written off.....	294.79

Total Disbursements..... 6,129.88

Add Inventory January 1, 1915..... 818.14

6,948.02

Deduct Inventory on hand December 31, 1915..... 1,100.13

Less \$150.00 donation of furniture.....

5,847.89

Profit for year ended December 31, 1915, as per } 1,769.63
Balance sheet (Exhibit "A") }

\$7,617.52

REPORT OF THE EDITOR OF PUBLICATIONS FOR 1915

The expansion of the activities of The Institute of Radio Engineers during 1915 has been highly gratifying. A detailed comparison of the work done in 1915 with that of 1914 follows:

	1914	1915	Increase
Papers published.....	13	19	6
Pages of <i>Proceedings</i>	331	416	85
Illustrations in <i>Proceedings</i>	102	148	46
Items in Index of <i>Proceedings</i>	164	425	261
Papers of which reprints were made	2	4	2
Pages of reprints.....	33	58	25
Papers of which advance copies were made.....	--	1	1
Pages of advance copy.....	--	32	32
Total pages published, including Year Book, Standardization Report, etc.....	364	580	216
Correspondence of Editor's Office (in letters).....	500	1500	1000

It will be seen that the total publications of the Institute have increased nearly 60 per cent during 1915. As a natural consequence, the business transacted by the Editor's office has very markedly increased.

During 1916, in accordance with a recently passed constitutional amendment, there will be published six issues of the *Proceedings*, instead of four as heretofore.

A difficulty has been experienced in securing copies of papers and discussions of the meetings of some of the Sections of the Institute. Arrangements are being made whereby this difficulty will be overcome.

The Editor feels it desirable to have advance copies of certain of the papers presented before the Institute available for the use of interested members, to the end that a more complete discussion may be secured on such papers. Financial considerations have, up to the present, prevented the adoption of any broad plan in this connection; but every effort will be made to devise and carry out such a plan.

The thanks of the Institute and the Editor are due those who by their kind assistance have made possible the presentation and publication of the 1915 papers.

ALFRED N. GOLDSMITH,
Editor.

CONSTITUTION

ADOPTED AT THE FIRST MEETING OF THE INSTITUTE OF RADIO ENGINEERS, MAY 13, 1912, AMENDED NOVEMBER 2, 1914, AND DECEMBER 5, 1915.

ARTICLE I

NAME AND OBJECT

SEC. 1. The name of this organization shall be The Institute of Radio Engineers.

SEC. 2. Its object shall be the advancement of the theory and practice of radio engineering and of the allied arts and sciences and the maintenance of a high professional standing among its members. Among the means to this end shall be the holding of meetings for the reading and discussion of professional papers and the publication of such papers, discussions and communications as may seem expedient.

ARTICLE II

MEMBERSHIP

SEC. 1. The membership of the Institute shall consist of:

a. Honorary Members, who shall be entitled to all the rights and privileges of the Institute except the right to nominate, vote and hold office.

b. Fellows, who shall be entitled to all the rights and privileges of the Institute.

c. Members, who shall be entitled to all the rights and privileges of the Institute except the right to hold the office of President and Vice-President.

d. Associates, who shall be entitled to all the rights and privileges of the Institute except the right to hold the office of President, Vice-President and Editor.

e. Juniors, who shall be entitled to attend all meetings and to receive copies of all Institute publications.

SEC. 2. Honorary Members may be chosen from among those who have rendered acknowledged eminent service to radio science, or the radio arts.

SEC. 3. A Fellow shall not be less than thirty years of age and shall be either:

a. A radio engineer by profession. As such he shall be qualified to design and to take responsible charge of important radio work; he shall have been in the active practice of his profession for at least seven years, and shall have had responsible charge of important radio work for at least three years.

When the applicant holds in a principal national society of an allied branch of engineering, membership of a grade for which the qualifications indicate a standing equal to that required for the grade of Fellow herein, such membership shall be considered equivalent to three of the required seven years of active practice of the radio profession.

b. A professor of physical science or of electrical engineering. As such he shall have attained special distinction as an expounder of the principles of radio science and of radio engineering; he shall have had at least seven years' experience as a teacher of physical or electrical subjects and shall have had responsible charge for three years, in a radio course of a principal school of science or engineering. Any years of experience as defined in paragraph "a" that the applicant may have had as a radio engineer shall be considered the equivalent of the same number of years of experience as a "teacher of radio subjects."

c. A person who has done notable original work in radio science of a character to give him a recognized standing at least equivalent to that required for the Fellows under paragraphs "a" and "b."

d. A person regularly engaged in radio work for at least seven years, who, by inventions or by special proficiency in contributions to the radio science or the radio arts or radio literature, has attained a standing at least equivalent to that required for Fellows under paragraphs "a" and "b."

SEC. 4. A Member shall be not less than twenty-five years of age and shall be either:

a. A radio engineer by profession. As such, under general direction, he shall have designed and taken responsibility for important radio engineering work; he shall have been in the active practice of his profession for at least four years.

When the applicant holds in a principal national society of

an allied branch of engineering, membership of a grade for which the qualifications indicate a standing equal to that required for the grade of Member herein, such membership shall be considered equivalent to two years of the requisite four years of active practice of the radio profession.

b. A teacher of physical science or of electrical engineering. He shall have had at least four years' experience as a teacher of radio subjects in a school of recognized standing. Any years of experience the applicant may have had as a radio engineer shall be considered the equivalent of the same number of years of experience as a "teacher of radio science or of radio engineering."

c. A person regularly employed in radio or closely allied work for at least four years, who, by invention or by proficiency in radio science, the radio arts, or radio literature, or as an executive of any radio enterprise of large scope, has attained a standing equivalent to that required for Members under paragraphs "a" and "b." In the case of such an executive the applicant must be qualified to take responsible charge of the broader features of radio engineering involved in the work under his direction.

d. A commissioned officer of the Army or Navy of the United States government or of any foreign government, who has been regularly engaged in radio work for a period of three years, who shall have had responsible charge of important government radio work for at least one year and who shall have attained the rank of Lieutenant in the Navy or Captain in the Army.

SEC. 5. An Associate shall be not less than twenty-one years of age and shall be:

a. A radio engineer by profession.

b. A teacher of radio subjects.

c. A person who is interested in and connected with the study or application of radio science or the radio arts.

SEC. 6. A Junior shall be not less than sixteen years of age nor over twenty-one years of age, and shall be a person who is interested in the study or application of radio science or the radio arts.

On attaining the age of twenty-one years, Juniors shall be transferred to the grade of Associate.

SEC. 7. In all cases, graduation from the radio course or electrical course of a school of science or of engineering of recognized standing shall be considered the equivalent of one year's radio experience.

SEC. 8. Any person, who is a Member at the time this group of amendments is adopted, shall not be barred from eligibility to the grade of Fellow because of the age limitation, provided he shall otherwise be eligible as herein defined.

Any person who is an Associate at the time this group of amendments is adopted, shall not be barred from eligibility to the grade of Member because of the age limitations, provided he shall otherwise be eligible as herein defined.

ARTICLE III

ADMISSIONS AND EXPULSIONS

SEC. 1. Honorary Member shall be recommended by at least ten members to the Board of Direction, and upon unanimous vote of that Board shall be proposed to the membership for election. A person elected an Honorary Member shall be promptly notified thereof by letter. The election shall be cancelled if an acceptance is not received within six months after the mailing of notice.

SEC. 2. Applications may be made for admission or transfer to any grade of membership. Applicants shall give references to members of the Institute as follows:

For the grade of Fellow, to five Fellows.

For the grade of Member, to five Fellows or Members.

For the grade of Associate, to five Fellows, Members or Associates.

For the grade of Junior, to five Fellows, Members, or Associates.

Each application for admission or for transfer from one grade to another shall embody a concise statement with dates, of the candidate's training and experience and shall be in such form and such detail as may be prescribed by the Board of Direction. It shall be signed by the applicant and shall contain a promise to conform to the requirements of that grade of membership to which he may be elected.

Each of the members referred to by the applicant shall be requested by the Secretary to address a letter to the Board of Direction, stating the extent of the writer's personal knowledge of the applicant and his training and experience. If at least a majority of the corporate members named as references do not furnish the requisite endorsement, the Secretary shall call upon the applicant for additional names, and not until written com-

munications have been received from at least three members shall the application be considered by the Board of Direction.

The requirements of the foregoing paragraph may be waived in whole or in part where the applicant is well known, either personally or by reputation, to the Board of Direction, or where the application is for Junior or Associate grade.

An applicant who is so situated as not to be personally known to the required number of members of any grade may give the names, occupations and addresses of responsible non-members to complete the required number of references.

SEC. 3. A list comprising the names, ages, addresses and occupations of all new applicants for admission or transfer shall be sent by the Secretary to each member of the Board of Direction.

The Board of Direction may consider applications for admission to Junior grade, or admission or transfer to Associate grade at any regular meeting held at least one week after the list containing the applicants' names has been sent to each member of the Board of Direction.

The Board of Direction may consider applications for admission or transfer to the grade of Member at any regular meeting held at least two weeks after the list containing the applicants' names has been sent to each member of the Board of Direction.

The Board of Direction may consider applications for admission or transfer to the grade of Fellow at any regular meeting held at least four weeks after the list containing the applicants' names has been sent to each member of the Board of Direction.

A recorded affirmative vote, oral or written, of at least two-thirds of the Board members voting at any regular meeting, shall elect or transfer an applicant for any grade. A vote on any application shall stand, unless withdrawn by the Board member voting, until the application is finally acted upon.

SEC. 4. A rejected applicant may renew his application for membership at any time after the expiration of one year from the date of the ballot rejecting his previous application.

SEC. 5. All elected candidates shall be duly notified and shall subscribe to the Constitution and Rules of the Institute. Forms for these purposes shall be prescribed by the Board of Direction. If these provisions are not complied with within six months from the notification of election, such election shall be considered void, unless for special reason the time shall be

extended by the Board of Direction. Membership of any person shall date from the date of his election.

SEC. 6. Fellows, Members, Associates, or Juniors, if found delinquent in their duties may be tried by the Board of Direction, and upon decision of the Board their names shall be submitted to the Institute to determine their suspension or expulsion. A three-quarters vote of the Institute shall be necessary to ratify such action of the Board.

SEC. 7. A member may resign his membership by a written communication to the Secretary, who shall present the same to the Board of Direction; when, if all his dues have been paid his resignation shall be accepted.

ARTICLE IV

DUES

SEC. 1. The entrance fee, payable on admission to the Institute, shall be as follows:

- Admission to the grade of Fellow, ten (10) dollars
- " " " " " Member, five (5) dollars
- " " " " " Associate, three (3) dollars
- " " " " " Junior, one (1) dollar

The transfer fee from one grade of membership to another shall be the difference between the corresponding admission fees.

The entrance fees shall be waived until January 1, 1916.

SEC. 2. The annual dues payable by members, whether resident or non-resident, shall be as follows:

- a. By Fellows, ten (10) dollars
- By Members, seven dollars and fifty cents (\$7.50)
- By Associates, four (4) dollars
- By Juniors, three dollars and fifty cents (\$3.50)
- b. Honorary Members shall be exempt from all payments.

SEC. 3. The annual dues shall be payable on the first day of January, in advance for the ensuing year. It shall be the duty of the Secretary to notify each member of the amount due at the time of giving notice of the annual meeting.

SEC. 4. Persons elected after July 1st of any year shall pay only one-half of the dues for that year.

SEC. 5. Any person whose dues are more than three months

in arrears shall be notified by the Secretary. Should his dues not be paid when they become six months in arrears, he shall lose the right to vote or to receive the publications of the Institute. Should his dues become nine months in arrears, he shall be again notified in form prescribed by the Board of Direction, and if such dues become one year in arrears he shall forfeit his connection with the Institute. The Board of Direction, may, however, for cause deemed by it sufficient, extend the time for payment and for the application of these penalties.

SEC. 6. The Board of Direction may, for sufficient cause, temporarily excuse from payment of annual dues any member; and the Board may remit the whole or part of dues in arrears, or accept in lieu thereof desirable additions to the library or collections.

SEC. 7. Every person admitted to the Institute shall be considered as belonging thereto and liable for the payment of all dues until he shall have resigned, been expelled, or have been relieved therefrom by the Board of Direction.

ARTICLE V

OFFICERS

SEC. 1. The governing body of the Institute shall be a President, Vice-President, a Secretary and a Treasurer and Editor of Publications, six elected Managers, and three appointed Managers, who shall together constitute the Board of Direction.

SEC. 2. The terms of all officers, except the six elected Managers, shall be one year, and shall begin at the close of the annual meeting at which election is made. The terms of all officers shall continue until successors are duly elected. The President and the Vice-President shall not be eligible for immediate renomination to the same office.

SEC. 3. Two Managers shall be elected each year and serve for three years.

For the year 1915 the six elected Managers shall be voted upon as follows: The two candidates receiving the highest number of votes shall serve for three years; the two candidates receiving the next highest number of votes shall serve for two years; the two candidates receiving the next highest number of votes shall serve for one year.

SEC. 4. The three appointed Managers shall be chosen by the Board of Direction, to serve for terms of one year. These appointed Managers shall have no vote in the election of their successors.

ARTICLE VI

MANAGEMENT

SEC. 1. The President shall have general supervision of the affairs of the Institute. He shall preside at meetings of the Institute and of the Board of Direction at which he may be present, and shall be an ex-officio member of all committees. He shall deliver an address at the annual meeting.

SEC. 2. The Board of Direction shall manage the affairs of the Institute in conformity to the laws under which the Institute is organized and the provisions of the Constitution. It shall direct the investment and care of the funds of the Institute; make appropriations for specific purposes; act upon applications for membership as heretofore provided; take measures to advance the interests of the Institute; appoint all its employees, and generally direct its business. The Board of Direction shall make an annual report at the annual meeting, transmitting the report of the Treasurer and of other officers and of committees. Five members of the Board of Direction shall constitute a quorum.

SEC. 3. The Treasurer shall receive all moneys and deposit same in the name of the Institute. He shall invest all funds not needed for current disbursements, as shall be ordered by the Board of Direction. He shall pay all bills, when certified and audited, as provided by this Constitution and by rules to be prescribed by the Board of Direction. He shall make an annual report and such other reports as may be prescribed by the Board of Direction.

The Board of Direction shall secure a satisfactory surety for the faithful performance of his duties by the Treasurer, and shall renew the same during the month of January of each year.

SEC. 4. The Secretary will be expected to attend all meetings of the Institute and of the Board of Direction; prepare the business therefor, and duly record the proceedings thereof. He shall see that all moneys due the Institute are carefully collected, and without loss transferred to the custody of the Treasurer. He shall carefully scrutinize all expenditures and use his best endeavor to secure economy in the administration of the

Institute. He shall personally certify the accuracy of all bills or vouchers on which money is to be paid, and shall countersign the checks drawn by the Treasurer against the funds of the Institute, when such drafts are known to him to be proper and duly authorized by the Finance Committee. He shall have charge of the books of account of the Institute, and shall furnish when required by the Board of Direction a statement of receipts and expenses under their several headings, and also a statement of monthly balances. He shall present annually, to the Board of Direction, a balance sheet of his books as of the 31st of December, and shall furnish from time to time such other statements as may be required of him. He shall conduct the correspondence of the Institute and keep full records of the same. He shall perform all other duties which may from time to time be assigned to him by the Board of Direction.

SEC. 5. The Board of Direction may also, if they deem it necessary, appoint an Assistant Secretary, who shall aid the Secretary and be under his immediate direction in all matters.

SEC. 6. The President, as soon as expedient after the annual meeting, shall appoint from the membership, with the advice and consent of the Board of Direction, the following standing committees:

Committee on Papers
Committee on Standardization
Committee on Publicity

Members appointed shall serve until their successors are appointed or the committees are dissolved.

ARTICLE VII

NOMINATION AND ELECTION OF OFFICERS

SEC. 1. Two months before the annual meeting, nominations for the offices of President, Vice-President, Secretary and Treasurer and two Managers, shall be called for from the membership qualified by this Constitution. Before nominees' names are submitted to the membership for final vote each nominee shall be consulted and if he so requests, his name shall be withdrawn and the next ranking name substituted.

For the year 1915, nominations for six Managers shall be called for.

One month before the annual meeting, the Board of Direction shall submit to the entire membership excepting Honorary

Members and Juniors, a list of all nominees, which list shall consist of the pairs of names receiving the largest number of nominations for each office. In the event of ties in nominations the Board of Direction shall select the name of the man in its opinion best fitted for that office. The membership shall then submit written ballots in plain sealed envelopes enclosed within mailing envelopes marked "Ballot" and bearing the members' signature, voting for officers from the list of nominees. A majority vote received up to the time of the closing of the poll (twenty-four hours before the opening of the annual meeting) shall elect, and no votes by proxy shall be counted. The method of balloting herein described shall be used for nominating as well as for voting, except the outer envelope shall be marked "Nomination" in the former case. In nominating, as in voting, no proxies or ballots within unsigned outer envelopes shall be opened for counting. Ballots, whether for nomination or voting, shall be checked, opened and counted by a quorum of the Board of Direction, at a regular meeting of the Board. At the time of call for nominations, the Board of Direction shall submit to the qualified voters a list of suggested nominations containing at least two names for each office.

SEC. 2. The Editor of Publications shall be elected by vote of the Board of Direction as soon as practicable after May first.

ARTICLE VIII

MEETINGS

SEC. 1. There shall be an Annual Meeting, at which the annual reports for the year ending December thirty-first previous shall be presented, and the ballot for officers, reported. At this meeting, fifteen (15) members shall constitute a quorum.

SEC. 2. Business meetings shall be held as prescribed by the by-laws.

SEC. 3. In addition to the Annual Meeting, meetings for the reading and discussion of papers shall be held as ordered by the Board of Direction.

SEC. 4. Special meetings may be called by the Board of Direction, and shall be so called upon the request of ten members, which request shall state the purpose of such meeting. The call for such meeting shall be issued ten days in advance, and shall state the purpose thereof, and no other business shall

be taken up at such meeting. At these meetings, ten members shall constitute a quorum.

SEC. 5. The Institute may adopt, from time to time, rules for the order of business at its meetings.

SEC. 6. Meetings of the Board of Direction shall be held at the time of the annual meeting and at such other times as the Board may determine, but only on notice to all members of the Board by the Secretary. Notices of time and place of meeting are to be mailed in New York at least two days in advance.

ARTICLE IX

AMENDMENTS

SEC. 1. Proposed amendments to this Constitution must be reduced to writing and signed by not less than twenty Fellows, Members or Associates, and be submitted to the entire membership, except Honorary Members and Juniors, who shall vote by letter ballot. The amendment shall be adopted if seventy-five per cent of the votes received are in favor of such action, the polls having been open for at least one month after mailing to the qualified membership, notices of the proposed amendments. Votes upon the adoption of proposed amendments shall be checked, opened and counted by a quorum of the Board of Direction at a regular meeting of the Board.

OFFICERS AND BOARD OF DIRECTION, 1916

(Terms expire January 3, 1917; except as otherwise noted)

PRESIDENT

ARTHUR E. KENNELLY

VICE-PRESIDENT

JOHN L. HOGAN, JR.

TREASURER

WARREN F. HUBLEY

SECRETARY

DAVID SARNOFF

EDITOR OF PUBLICATIONS

ALFRED N. GOLDSMITH

MANAGERS

(Serving until January 1, 1919)

EDWIN H. ARMSTRONG

WILLIAM H. G. BULLARD

(Serving until January 2, 1918)

LOUIS W. AUSTIN

JOHN HAYS HAMMOND, JR.

(Serving until January 3, 1917)

LLOYD ESPENSCHIED

ROBERT H. MARRIOTT

GUY HILL

JOHN STONE STONE

ROY A. WEAGANT

ADVERTISING MANAGER

LOUIS G. PACENT

WASHINGTON SECTION

EXECUTIVE COMMITTEE

CHAIRMAN

COLONEL SAMUEL REBER

War Department,

Washington, D. C.

SECRETARY-TREASURER

GEORGE H. CLARK

Navy Department,

Washington, D. C.

CHARLES J. PANNILL

Commercial Traffic Superintendent

U. S. Naval Radio Service

Radio, Va.

BOSTON SECTION

CHAIRMAN

A. E. KENNELLY

Harvard University,

Cambridge, Mass.

SECRETARY-TREASURER

MELVILLE EASTHAM

11 Windsor Street,

Cambridge, Mass.

SEATTLE SECTION

CHAIRMAN

ROBERT H. MARRIOTT

715 Fourth Street,

Bremerton, Wash.

SECRETARY-TREASURER

ALEXIS A. PAYSSE

Hotel Burke,

Seattle, Wash.

PAST-PRESIDENTS

SOCIETY OF WIRELESS TELEGRAPH ENGINEERS

JOHN STONE STONE, 1907-8

LEE DE FOREST, 1909-10

FRITZ LOWENSTEIN, 1911-12

THE WIRELESS INSTITUTE

ROBERT H. MARRIOTT, 1909-10-11-12

THE INSTITUTE OF RADIO ENGINEERS

ROBERT H. MARRIOTT, 1912

GREENLEAF W. PICKARD, 1913

LOUIS W. AUSTIN, 1914

JOHN STONE STONE, 1915

The Membership of the Standing Committees of The Institute for 1916 will be announced in an early issue of THE PROCEEDINGS OF THE INSTITUTE OF RADIO ENGINEERS.

OFFICERS AND BOARD OF DIRECTION, 1915

(Terms expire January 5, 1916; except as otherwise noted.)

PRESIDENT
JOHN STONE STONE

VICE-PRESIDENT
GEORGE W. PIERCE

TREASURER
WARREN F. HUBLEY

SECRETARY
DAVID SARNOFF

EDITOR OF PUBLICATIONS
ALFRED N. GOLDSMITH

MANAGERS
(Serving till January 2, 1918.)
LOUIS W. AUSTIN JOHN HAYS HAMMOND, JR.
(Serving till January 3, 1917.)
ROBERT H. MARRIOTT GUY HILL
(Serving till January 5, 1916.)
GEORGE S. DAVIS ROY A. WEAGANT
EMIL J. SIMON JOHN L. HOGAN, JR.
LLOYD ESPENSCHIED
ADVERTISING MANAGER
LOUIS G. PACENT

WASHINGTON SECTION

(Established January, 1914)

CHAIRMAN SECRETARY-TREASURER
LIEUTENANT S. C. HOOPER LOUIS M. EVANS
Navy Department, 1710 Pennsylvania Ave., N.W.
Washington, D. C. Washington, D. C.

BOSTON SECTION

(Established November, 1914)

CHAIRMAN SECRETARY-TREASURER
GEORGE W. PIERCE MELVILLE EASTHAM
7 Berkeley Place, 11 Windsor Street.
Cambridge, Mass. Cambridge, Mass.

SEATTLE SECTION

(Established February, 1915)

CHAIRMAN SECRETARY-TREASURER
ROBERT H. MARRIOTT ALEXIS A. PAYSE
715 Fourth Street, Hotel Burke,
Bremerton, Wash. Seattle, Wash.

STANDING COMMITTEES

1915

The 1916 Committees will be announced in an early number of
THE PROCEEDINGS OF THE INSTITUTE OF RADIO ENGINEERS.

COMMITTEE ON STANDARDIZATION

ALFRED N. GOLDSMITH, <i>Chairman</i>	College of the City of New York, New York
LOUIS W. AUSTIN	Washington, D. C.
LOUIS COHEN	Washington, D. C.
JAMES ERSKINE-MURRAY	London, England
JOHN L. HOGAN, JR.	New York
GUY HILL	New York
LESTER ISRAEL, <i>Secretary</i>	New York
ARTHUR E. KENNELLY	Cambridge, Mass.
FREDERICK A. KOLSTER	Washington, D. C.
ROBERT H. MARRIOTT	Seattle, Wash.
GREENLEAF W. PICKARD	Boston, Mass.
GEORGE W. PIERCE	Cambridge, Mass.
EMIL J. SIMON	New York
CHARLES H. TAYLOR	New York
C. TISSOT	Paris, France
ROY A. WEAGANT	Aldene, N. J.
JONATHAN ZENNECK	Munich, Germany
JOHN STONE STONE, <i>ex-officio</i>	New York

COMMITTEE ON PUBLICITY

JOHN L. HOGAN, JR., <i>Chairman</i>	New York
GEORGE S. DAVIS	New York
ROBERT H. MARRIOTT	Seattle, Wash.
DAVID SARNOFF	New York
EMIL J. SIMON	New York
ROBERT B. WOOLVERTON	San Francisco, Cal.
JOHN STONE STONE, <i>ex-officio</i>	New York

COMMITTEE ON PAPERS

ALFRED N. GOLDSMITH, <i>Chairman</i>	College of the City of New York, New York
LOUIS W. AUSTIN	Washington, D. C.
JOHN L. HOGAN, JR.	New York
ARTHUR E. KENNELLY	Cambridge, Mass.
ROBERT H. MARRIOTT	Seattle, Wash.
ROBERT B. WOOLVERTON	San Francisco, Cal.
JOHN STONE STONE, <i>ex-officio</i>	New York

COMMITTEE ON FINANCE

ALFRED N. GOLDSMITH, <i>Chairman</i>	College of the City of New York, New York
GUY HILL	New York
JOHN L. HOGAN, JR.	New York
ROY A. WEAGANT	Aldene, N. J.
JOHN STONE STONE, <i>ex-officio</i>	New York

SPECIAL COMMITTEES

COMMITTEE ON SAN FRANCISCO REPRESENTATION

ROBERT B. WOOLVERTON, <i>Chairman</i>	San Francisco, Cal.
JOHN L. HOGAN, JR.	New York
ROBERT H. MARRIOTT	Seattle, Wash.
DAVID SARNOFF	New York
JOHN STONE STONE, <i>ex-officio</i>	New York

COMMITTEE ON FORMATION OF SEATTLE SECTION

ROBERT H. MARRIOTT, <i>Chairman</i>	Seattle, Wash.
FREDERICK G. SIMPSON	Seattle, Wash.
ROY A. THOMPSON	Seattle, Wash.
JOHN STONE STONE, <i>ex-officio</i>	New York

COMMITTEE ON CONSTITUTIONAL AMENDMENTS

JOHN L. HOGAN, JR., <i>Chairman</i>	New York
WARREN F. HUBLEY	Newark, N. J.
DAVID SARNOFF	New York
JOHN STONE STONE, <i>ex-officio</i>	New York

COMMITTEE ON 1915 FINANCIAL MATTERS

WARREN F. HUBLEY, <i>Chairman</i>	Newark, N. J.
JOHN L. HOGAN, JR.	New York
DAVID SARNOFF	New York
JOHN STONE STONE, <i>ex-officio</i>	New York

THE INSTITUTE OF RADIO ENGINEERS (INC.)

LIST OF FELLOWS

Listed Alphabetically

ALEXANDERSON, E. F. W., Consulting Engineer, General Electric Company, Schenectady, N. Y.*	A Mar. 12, 1913 M Mar. 26, 1913 F Mar. 31, 1915
AUSTIN, LOUIS W., Ph.D., Head, U. S. Naval Radio Telegraphic Laboratory, Bureau of Standards, Washington, D. C.; res., 3135 Newark St., Washington, D. C.*	A Jan. 22, 1913 M Feb. 11, 1913 F Feb. 10, 1915
BRADFIELD, WILLIAM W., Manager, Marconi Wireless Telegraph Co., Marconi House, Strand; res., 40 Albert Hall Mansion, Kensington, London, England; Marconi House, Strand, London, England.*	A May 6, 1914 M May 22, 1914 F Mar. 31, 1915
BRAUN, FERDINAND, Professor of Physics, University of Strassburg; Germany; res., 677 Vanderbilt Ave., Brooklyn, N. Y.*	F July 7, 1915
CLARK, GEORGE H., Expert Radio Engineer, U. S. Navy; res., Apt. 504, Fontanet Courts, 14th and Fairmont St., Washington, D. C.*	Charter Member, S.W.T.E. M June 1, 1913 F Mar. 31, 1915
COHEN, LOUIS, Consulting Research Engineer; res., 1855 Calvert St., Washington, D. C.*	M Jan. 20, 1914 F Mar. 31, 1915
DUDELL, WILLIAM, Consulting Engineer; res., 47 Hans Place, London, S. W., England, 56 Victoria St., Westminster, London, England.*	F June 16, 1915
DUNN, GANO, President, J. G. White Engineering Corporation, 43 Exchange Place, New York City; res., 117 W. 58th St., New York City.*	F Feb. 10, 1915
EDWARDS, CHARLES P., General Superintendent, Canadian Government Radiotelegraphs, Dept. of Naval Service, Ottawa, Canada.*	M June 12, 1913 F Mar. 31, 1915
EHRET, CORNELIUS D., Patent Attorney, 2118 Land Title Bldg., Philadelphia, Pa.; res., 6911 Clearview St., Mt. Airy, Philadelphia, Pa.*	F Jan. 5, 1916
ERSKINE-MURRAY, JAMES, Author and Consulting Engineer (Radio); res., 4 Great Winchester St., London, E. C., England.*	M June 25, 1913 F Feb. 21, 1915
FARNSWORTH, PHILIP, Patent Attorney, 119 Broadway, New York City.*	A Charter Member, W. I. M April 2, 1913 F April 14, 1915
FORBES, E. D., Expert Radio Aid, U. S. Navy, Philadelphia, Pa.; res., Newtowne Square, Pa., R. F. D. No. 3; Machinery Division, Navy Yard, Philadelphia, Pa.*	Charter Member, S.W.T.E. M Dec. 20, 1912 F Mar. 31, 1914
GOLDSCHMIDT, RUDOLPH, Ph.D., Prof. Dr., Radio Engineer, Experimenter; res., Reichskanzler Platz 3, Charlottenburg, Berlin, Germany.*	M Sept. 9, 1914 F July 7, 1915
GOLDSMITH, ALFRED N., <i>Pres. Dr.</i> , Editor of <i>Proceedings</i> , Instructor in Radio Engineering, The College of the City of New York, New York, N. Y.*; res., 43 Fifth Ave., New York City.	Charter Member, W. I. M Dec. 20, 1912 F Jan. 20, 1915
HILL, GUY, Radio Engineer—in charge Radio Laboratory, U. S. Navy, Brooklyn, N. Y.; Radio Laboratory, Navy Yard, Brooklyn, N. Y.*; res., 157 Prospect Park, West, Brooklyn, N. Y.	Charter Member M Feb. 11, 1913 F May 26, 1915
HOGAN, JOHN L., Jr., <i>Vice-President of the Institute</i> , Chief Research Engineer, National Electric Signaling Co., 67 35th St., Brooklyn, N. Y.; res., 116 Seminole St., Neponsit, West Rockaway, N. Y.*	A Charter Member, S.W.T.E. M Dec. 20, 1912 F Jan. 20, 1915

*Denotes mailing address

†As of 1915

IVES, JAMES E., Honorary Fellow in Physics, Clark University; res., 1030 Maine Street, Worcester, Mass.; Worcester, Mass.*	F	June	16, 1913
KENNELLY, ARTHUR E., Ph.D., President of the Institute, Professor of Electrical Engineering, Harvard University and Massachusetts Institute of Technology, Cambridge, Mass.*; res., 1 Kennedy Road, Cambridge, Mass.	A	Dec.	4, 1912
	M	Feb.	14, 1913
KINTNER, SAMUEL M., Receiver and General Manager, National Electric Signaling Co., 514 Farmers Bank Bldg., Pittsburgh, Pa.*	M	Sept.	3, 1913
res., 1225 Beechwood Blvd., Pittsburgh, Pa.	F	April	14, 1915
MARRIOTT, ROBERT H., Expert Radio Aid, U. S. Navy, Navy Yard, Bremerton, Wash.*; res., 715 4th St., Bremerton, Wash.	Charter Member, W. I.		
	M	Dec.	20, 1912
	F	Jan.	20, 1913
MAYER, EMIL E., Chief Engineer, Tuckerton Radio Station, Tuckerton, N. J.*	M	Sept.	3, 1913
	F	April	21, 1915
MEISSNER, ALEXANDER, Dr. Ing., Chief Engineer, Telefunken Laboratory, Gesellschaft für Drahtlose Telegraphie, Berlin; Tempelhofer Ufer, 25 Berlin S. W., Germany; res., care of Director Hartmann, Copenhagen, Blegdamsvej 124, Denmark.*	M	Aug.	12, 1914
	F	April	14, 1915
NORMAN, SIR HENRY, M. P. Vice-President, Wireless Society of London; res., Honeyhanger, Hindhead, Surrey, England.*	A	Aug.	12, 1914
	M	Aug.	12, 1914
	F	April	14, 1915
PEDERSEN, PEDER OLUF, Professor, Royal Technical College, Copenhagen, Denmark; res., Annlievej 1, Copenhagen, Denmark.*	F	Sept.	22, 1915
PICKARD, GREENLEAF W., Vice-President, Wireless Specialty Apparatus Co., Boston, Mass.; res., Amesbury, Mass.*	A	Charter Member, S.W.T.E. and W. I.	
	M	Sept.	20, 1912
	F	Feb.	10, 1915
PIERCE, GEORGE W., Assistant Professor of Physics, Director, Craft Laboratory, Harvard University, Cambridge, Mass.; res., 7 Berkeley Place, Cambridge, Mass.*	M	June	25, 1913
	F	Feb.	10, 1915
POULSEN, VALDEMAR, Prof., Inventor; res., St. Blichersvej 22, F., Copenhagen, Denmark.*	F	Sept.	22, 1915
PUPIN, MICHAEL L., Professor of Electro-Mechanics, Columbia University, New York City*; res., 1 W. 72nd St., New York City.	F	Feb.	10, 1915
ROBISON, SAMUEL S., Naval Officer, Navy Department, Bureau of Steam Engineering, Washington, D. C.; U. S. S. "South Carolina," care of Postmaster, New York City.*	A	Oct.	11, 1914
	M	Oct.	28, 1914
	F	April	14, 1915
SEIBT, GEORGE, Ph.D., Radio Engineer and Inventor; res., Hauptstrasse 9, Berlin (Schoenberg), Germany.*	M	Nov.	26, 1913
	F	April	14, 1915
SIMON, EMIL J., Radio Engineer and Contractor, 50 Church St., New York City; res., 414 W. 120th St., New York City.*	Charter Member, I. W.		
	M	Dec.	20, 1912
	F	Jan.	20, 1913
SIMPSON, FREDERICK G., General Manager and Chief Engineer, Kilbourne-Clark Mfg. Co., 71 Columbia St., Seattle, Wash.; res., 3313 Bella Vista Ave., Mt. Baker Park, Seattle, Wash.*	M	Aug.	7, 1913
	F	Feb.	10, 1915
STONE, JOHN STONE, Inventor and Consulting Electrical and Radio Engineer; res., National Arts Club, 14 Gramercy Park, New York City.*	A	Charter Member, S.W.T.E.	
	M	Feb.	14, 1913
	F	Feb.	10, 1915
SWINTON, A. A. CAMPBELL, Consulting Engineer and President, Wireless Society of London; res., 66 Victoria St., London, S. W., England.*	M	Aug.	12, 1914
	F	April	14, 1914
TAYLOR, CHARLES H., Assistant Chief Engineer, Marconi Wireless Telegraph Co., 233 Broadway, New York City.*	M	Nov.	5, 1913
	F	April	14, 1915
WEAGANT, ROY A., Chief Engineer, Marconi Wireless Telegraph Co., 233 Broadway, New York City; res., 211 E. Third Ave., Roselle, N. J.*	Charter Member, W. I.		
	M	Feb.	14, 1913
	F	Mar.	31, 1915
WILDMAN, LEONARD D., Major, Signal Corps, U. S. Army, War Department, Washington, D. C.; Signal Corps, U. S. A., Fort Leavenworth, Kans.*	A	April	8, 1914
	M	May	22, 1914
	F	June	16, 1915
WOOLVERTON, ROBERT B., Radio Inspector, U. S. Government, Department of Commerce; 526 Custom House, San Francisco, Cal.; res., 727 San Mateo Drive, San Mateo, Cal.*	A	June	4, 1913
	F	April	21, 1915
	M	Sept.	3, 1913
ZENNECK, JONATHAN, Professor of Experimental Physics, Technische Hochschule, Munich, Germany; care of Dr. K. S. Frank, 90 West St., New York City.*	M	July	24, 1913
	F	April	14, 1914

*Denotes mailing address

LIST OF MEMBERS

Listed Alphabetically

ANDREWS, EDMUND R., Lieutenant U. S. Army, Army Signal School, Ft. Leavenworth, Kans.; res., 13th U. S. Infantry, Ft. William McKinley, P. I.*	A	April	8, 1914
	M	May	2, 1914
APPLEBY, THOMAS, President, Radio Apparatus Co. of America, Parkway Bldg., Philadelphia, Pa.*; res., 5817 Ellsworth, Philadelphia, Pa.	A	Sept.	3, 1913
	M	April	11, 1915
BEAKES, WILLIAM E., Chief Engineer, Tropical Radio Telegraph Co., 321 St. Charles St., New Orleans, La.; res., 330 South Clark St., New Orleans, La.*	A	May	6, 1914
	M	June	17, 1914
BEHR, FRANCIS J., Captain, Coast Artillery Corps, U. S. A., Ft. Monroe, Va.*	A	Jan.	22, 1913
	M	Dec.	3, 1913
BINYON, BASIL, Lieutenant, R. N. J. R., R. N. Flying School, Eastchurch, England; Eastchurch, England.*	A	Sept.	9, 1914
	M	Sept.	9, 1914
BOEHME, H. O., Manager of Engineering and Operating Department, Atlantic Communication Co., 47 West St., New York City*; res., 151 E. 19th St., New York City.	M	Jan.	20, 1915
BUCHER, E. E., Instructing Engineer, Marconi Wireless Telegraph Co., 57 Duane St., New York City.*	M	Sept.	3, 1913
BULLARD, CAPT. W. H. G., Naval Officer, U. S. Navy; res., The Woodward Apt., Connecticut Ave., Washington, D. C.; Radio, Va.*	M	Oct.	15, 1913
CABOT, SEWALL, Electrical Engineer, Electric Conversion Co., Boston, Mass.; res., 232 High Street, Brookline, Mass.*	A	Charter Member, S.W.T.E.	
	M	May	22, 1914
CAMPBELL, HOWARD E., Associate Engineer, Marconi Wireless Telegraph Co., Bolinas, Cal.*	A	Jan.	21, 1914
	M	July	28, 1914
CANN, JOHN O. G., Chief Assistant Engineer, Marconi Wireless Telegraph Co. of Canada; res., Hazelmere, Harrow Rd., Brislington Bristol, Eng.; Glace Bay, Nova Scotia, Canada.*	M	June	16, 1915
CASWALL, HERBERT, Wireless Engineer, Marconi Wireless Telegraph Co., Ltd.; res., 2609 Park Ave., Montreal, Canada; Marconi House, Strand, London, England.*	A	Sept.	30, 1914
	M	Dec.	30, 1914
CHEETHAM, HENRY R., Operator of Boston Station, Marconi Wireless Telegraph Co. of America, Boston, Mass.; res., 81 Avon St., Somerville, Mass.*	A	June	4, 1913
	M	Feb.	18, 1914
CLARK, THOS. E., Consulting and Electrical Engineer; 193-195 Cass Ave., Detroit, Mich.*	Charter Member, S.W.T.E.		
	M	April	2, 1913
CLIFTON, E. STANLEY YATES, Engineer-in-Charge, Glace Bay and Lunenburg Trans-Atlantic Stations, Marconi Wireless Telegraph Co. of Canada, Glace Bay, N. S., Canada; care of Marconi Trans-Atlantic Station, Glace Bay, N. S., Canada.*	M	May	26, 1915
COFFIN, JOSEPH GEORGE, Assistant Professor of Physics, College of the City of New York; res., 382 Wadsworth Ave., New York City.*	M	Dec.	15, 1915
COLE, A. B., Sales Manager, de Forest Radio Telegraph & Telephone Co., 101 Park Ave., New York City; res., 86 Westville Ave., Caldwell, N. J.*	A	Charter Member, W. I.	
	M	June	16, 1915
COLE, WILLIAM BEALE, Engineer, Marconi Wireless Telegraph Co., Marconi House, Strand, London.*	A	July	1, 1914
	M	Oct.	14, 1914
CRAM, ERNEST R., Radio Expert, Signal Corps, War Department, Bureau of Standards, Washington, D. C.*	A	Charter Member, S.W.T.E.	
	M	Feb.	14, 1915
CULVER, CLARENCE C., First Lieutenant, U. S. A., Signal Corps Aviation School, San Diego, Cal., care of War Department, Washington, D. C.*	A	April	8, 1914
	M	April	8, 1915

*Denotes mailing address

CURTIS, AUSTEN M., Engineer, Western Electric Co., 463 West St., New York City; res., 1297 St. John's Place, Brooklyn, N. Y.* A Nov. 1, 1914
M July 10, 1915

CUTTINO, FULTON, Radio Engineer, 205 Beacon St., Boston, Mass.*; res., Tuxedo Park, N. Y. M Nov. 17, 1914

DAVIS, GEORGE S., General Superintendent, Tropical Radio Telegraph Co., United Fruit Company—Wireless Department, 17 Battery Place, New York City; res., 676 Riverside Drive, New York City; 17 Battery Place, Room 1643, New York City.* Charter Member, S.W.T.E.
M Feb. 14, 1915

DAY, MAXWELL W., Engineer, Marine Department, General Electric Co., Schenectady, N. Y.; res., 26 Rugby Road, Schenectady, N. Y.* A May 6, 1914
M May 22, 1914

DE FOREST LEE, Ph.D., Inventor and Scientific Director, de Forest Radio Telegraph & Telephone Co., 1391 Sedgwick Ave.; res., Spuyten Duyvil, N. Y.* Charter Member, S.W.T.E.
M Oct. 11, 1914

DITCHAM, WILLIAM THEODORE, Research Engineer, Marconi Wireless Telegraph Co., Ltd., Marconi Works, Chelmsford, England; res., Kildary, Lebanon Park, Twickenham, England.* M June 3, 1915

DOLBEAR, BENJ. L., Telephone Engineer, New England Telephone & Telegraph Co., Boston, Mass.; res., 14 Wynman St., Arlington, Mass.* A Jan. 7, 1915
M Jan. 20, 1915

DUSHMAN, SAUL, Research Laboratory, General Electric Co., Schenectady, N. Y.*; res., 1 Huston St., Scotia, N. Y. M Dec. 15, 1914

EASTHAM, MELVILLE, Superintendent, General Radio Co., 11 Windsor St., Cambridge, Mass.* A Jan. 22, 1915
M Feb. 13, 1915

EDWARDS, JOHN RICHARD, President, Board of Shore Stations, Navy Department, Washington, D. C.; Rear Admiral, U. S. N., Navy Department, Washington, D. C.* A April 1, 1915
M April 1, 1915

ELWELL, CYRIL F., Radio Engineer, Cleve Hall, Denmark Hill, London, S. E., England; res., 85 Kings Hall Road, Beckenham, Kent, England.* A May 28, 1914
M May 28, 1914

ESPENSCHIED, LLOYD, Engineer, American Telegraph & Telephone Co., 15 Dey St., New York City.* Charter Member, S.W.T.E.
M May 28, 1914

EWEN, HARRY A., Chief Drawing and Design Department, Marconi Wireless Telegraph Co., Ltd., Marconi House, Strand, London, England; res., Braeside, Priest Lane, Shenfield, Essex, England.* M May 22, 1915

FISK, ERNEST THOMAS, Technical and General Manager, Amalgamated Wireless, (Australasia, Ltd.), Wireless House, 97 Clarence St., Sydney, N. S. W.; res., Athenaeum Club, Sydney, N. S. W., Australia; Marconi House, Strand, London, W. C., England.* M Dec. 15, 1914

FRANK, KARL GEORG, Secretary and Treasurer, Atlantic Communication Co.; Atlantic Communication Co., 90 West St., New York City.* M Aug. 11, 1915

FULLER, LEONARD F., Chief Electrical Engineer, Federal Telegraph Co., San Francisco, Cal.; res., 465 University Ave., Palo Alto, Cal.* A May 6, 1914
M May 22, 1914

GINMAN, ALBERT HARRY, General Superintendent, Marconi Wireless Telegraph Co., 414 Merchants Exchange Building, San Francisco, Cal.*; res., 728 Costa Rica Ave., Burlingame, Cal. A June 16, 1915
M June 16, 1915

GREAVES, V. FORD, Radio Engineer, Department of Commerce, Bureau of Navigation, Washington, D. C.*; res., 3733 Jocelyn St., Washington, D. C. Charter Member, S.W.T.E.
M Dec. 20, 1914

HALLBORG, H. E., Radio Expert Aide, U. S. Navy Yard, Norfolk, Va.; P. O. Box 798, Norfolk, Va.* A June 3, 1915
M May 22, 1915

HAMMOND, JOHN HAYS, Jr., Investigator, Hammond Radio Research Laboratory, Gloucester, Mass.*; res., New York City. A June 3, 1915
M Mar. 24, 1915

HANSCOM, W. W., Consulting Engineer; res., 818 Clayton St., San Francisco, Cal.* A Nov. 1, 1914
M Feb. 18, 1915

HEWITT, PETER COOPER, Inventor and Scientist, Madison Square Garden Tower, 26th St., New York City.* A June 17, 1915
M June 17, 1915

HINNERS, FRANK ALBIN, Engineer, Wireless Specialty Apparatus Co., 160 Duane St., New York City; res., 187 West 135th St., New York City. A Charter Member.
M Dec. 15, 1914

HOGG, COMM. W. S., Retired Naval Officer, U. S. Navy; res., 2812 Cathedral Ave., Washington, D. C.* Charter Member, S.W.T.E.
M Feb. 18, 1915

HOOPER, LIEUT. S. C., Fleet Radio Officer, U. S. Navy, Flagship "Wyoming"; U. S. Navy Department, Washington, D. C.* A June 1, 1915
M June 16, 1915

*Denotes mailing address

HULL, ALBERT W., Research Physicist, General Electric Co., Research Laboratory, Schenectady, N. Y.*; res., 49 Bedford Road, Schenectady, N. Y. M Jan. 5, 1916

HUTCHISON, MILLER REESE, Chief Engineer and Personal Representative, Thomas A. Edison, Orange, N. J.; res., Llewellyn Park, West Orange, N. J.* M Mar. 10, 1915

ISBELL, ARTHUR A., Assistant Manager, Marconi Wireless Telegraph Co., Bolinas, Marin Co., Cal.*; res., 2607 California St., San Francisco, Cal. A Nov. 26, 1913
M Nov. 26, 1913

JANKE, ALFRED H., Electrical Engineer and Patent Attorney, 2 Rector St., New York City; res., 203 West 9th St., Plainfield, N. J. A April 1, 1914
M May 22, 1914

KEITH, HILTON, Special Duties for Royal Naval Air Service, Calshot Naval Air Station; res., Fawley, Hants, England.* A July 16, 1913
M Oct. 14, 1914

KNIGHT, HARRY E., Partner, Knight Bros., 2 Rector St., New York City; res., 3645 Broadway, New York City.* A Nov. 11, 1914
M Dec. 16, 1914

KOLSTER, FREDERICK A., Radio Physicist, Department of Commerce, Bureau of Standards, Washington, D. C.*; res., 3735 Jocelyn St., Washington, D. C. A June 3, 1912
M Feb. 11, 1913

KROGER, F. H., Chief Engineer, National Electric Signalling Co., 67 35th St., Brooklyn, N. Y.*; res., 51 Martense St., Brooklyn, N. Y. Charter Member, S.W.T.E.
M Feb. 14, 1913

KRUW, LOUIS R., Chief Radio Inspector, Bureau of Navigation; res., 611 Ocean Ave., Flatbush, Brooklyn, N. Y.; Department of Commerce, New York City, Custom House (Room 603). A May 14, 1913
M May 26, 1915

LEARY, JOHN J., Superintending Engineer, Marconi Wireless Telegraph Co., Strand, London, England; Marconi House, Strand, London, England.* A Nov. 1, 1912
M June 12, 1913

LEWIS, GEORGE H., Assistant Wireless Specialist, U. S. N., Navy Yard, Brooklyn, N. Y.; Building 22, U. S. Navy Yard, Brooklyn, N. Y.* A Nov. 4, 1912
M Jan. 20, 1915

LIEBMAN, MORRIS N., Superintendent, Foote-Pierson Co., 160 Duane St., New York City; res., 187 West 135th St., New York City. M Mar. 10, 1915

LIEBOWITZ, BENJAMIN, Ph.D., Research Work, Columbia University, New York City; res., 505 West 124th St., New York City.* A June 3, 1912
M Jan. 20, 1915

LOWENSTEIN, FRITZ, [Past-President, S. W. T. E.], Consulting Engineer, 297 Bridge St., Brooklyn, N. Y.*; res., 42 Second Ave., Rockaway Park, L. I., N. Y. Charter Member, S.W.T.E.
M Feb. 14, 1913

MADDON, LIEUT. CHARLES H., Fleet Radio Officer and Aide to Commander-in-Chief, U. S. N.; Flagship, U. S. Pacific Fleet, care of Postmaster, San Francisco.* M June 25, 1913

MAHOOD, DAVID M., Jr., Engineer, Sperry Gyroscope Co., Manhattan Bridge Plaza, Brooklyn, N. Y.; res., 4821 Fort Hamilton Parkway, Brooklyn, N. Y.* M June 16, 1915

MARSHALL, CLOYD, General Manager, Wireless Specialty Apparatus Co., New York City; res., Dumont, N. J.; Box 188, Dumont, N. J.* A Mar. 12, 1913
M Mar. 26, 1913

MARTIN, JULIUS, Radio Engineer, Marconi Wireless Telegraph Co., 233 Broadway, New York City.* A June 25, 1913
M June 25, 1913

WASSIE, WALTER W., Consulting Engineer; res., 77 Washington St., Providence; R. I., 33 Windsor Road, Edgewood, R. I.* Charter Member, S.W.T.E.
M Feb. 14, 1915

MAUBORGNE, JOSEPH O., First Lieutenant, U. S. A., in charge of Radio Construction Works, Signal Corps, Fort Mills, Manila, P. I. A July 1, 1914
M July 1, 1914

MCDOWELL, LIEUT. CLYDE S., Electrical Aide, U. S. N., Atlantic Submarine Flotilla; U. S. S. "Columbia," care of Postmaster, New York City.* A Feb. 14, 1913
M June 16, 1915

MENICOL, DONALD, Assistant Electrical Engineer, Postal Telegraph Co., 253 Broadway, New York City; res., 53 Vermilyea Ave., New York City.* A April 1, 1914
M May 22, 1914

MERRITT, ERNEST, Professor of Physics, Cornell University, Ithaca, N. Y.; res., 39 East Ave., Ithaca, N. Y.* M May 26, 1915

MIDGLEY, FREDERICK W., Engineer, Harry McFarlane Glass Co., Mount Vernon, N. Y.* M June 12, 1913

NICHOLS, HAROLD W., Physicist, Western Electric Co., 463 West St., New York City; res., 42 Sommer Ave., Maplewood, N. J. M Nov. 17, 1915

PACENT, LOUIS GERARD, Manager, Radio Department, Manhattan Electrical Supply Co., 17 Park Place, New York City; res., 398 Van Buren St., Sunnyside, Long Island, N. Y.* A Nov. 4, 1912
M Dec. 15, 1914

*Denotes mailing address

1As of 1915

PANNILL, CHAS. J., Commercial Traffic Superintendent, U. S. Naval Radio Service, Radio, Va.; res., 2812 Connecticut Ave., Washington, D. C. M June 25, 1915

PARKHURST, A. F., Division Superintendent, Tropical Radio Telegraph Co., New Orleans, La.; res., 4722 Arts St., New Orleans, La.* Charter Member W.I. M Feb. 14, 1915

PEEBLES, LEIGHTON HARTWELL, Construction Supervisor, J. G. White Construction Co., 43 Exchange Place, New York City; res., 136 West 73rd St., New York City. M Mar. 24, 1915

PROCTOR, JOHN A., Designing Engineer (Radio), Wireless Specialty Apparatus Co., 216 High St., Boston, Mass.* A Feb. 14, 1915
M April 2, 1915

PUMPHREY, WALTER H., Counsellor at Law, 61 Broadway, New York City.* A Aug. 12, 1915
M April 21, 1915

REBER, SAMUEL, Colonel, Signal Officer, U. S. Army, War Department, Washington, D. C.* A Charter Member, S.W.T.U. M June 16, 1915

REINHARD, CYRIL DeWITTE, Radio Engineer, care of House-Grossman & Vorhause, 115 Broadway, New York City.* M Feb. 10, 1915

REOCH, ALEX. E., Chief Engineer and Secretary-Treasurer, Canadian Marconi Co., Montreal, Canada; res., 4840 Western Ave., Westmount, Montreal, Canada.* A Jan. 7, 1915
M Jan. 7, 1915

RICE, A. R., Radio Inspector, Department of Commerce, Custom House, New Orleans, La.* A Sept. 3, 1915
M Sept. 3, 1915

RICE, REGINALD K., Construction Engineer, Marconi Wireless Telegraph Co., Ltd., Marconi House, Strand, London, England; res., The Nutshell, Cheam Road, Sutton, Surrey, England; Naval Station, Seychelles, Indian Ocean.* A May 22, 1915
M Jan. 20, 1915

RICKARD, CHARLES ERNEST, Inspector of Wireless Telegraphy, Chilean Navy; res., 5 Baldwin Gardens, Acton, London, England; Casilla 813, Valparaiso, Chile, South America.* M Sept. 8, 1915

ROBINSON, EDWIN ERNEST, Engineer-in-Charge, Marconi Wireless Telegraph Co. of Canada, Montreal, Canada; res., 2260 Waverly St., Montreal, Canada.* M Aug. 11, 1915

ROOS, OSCAR C., Consulting Engineer, U. S. Insular Bureau, Philippine Islands.* Charter Member W.I. M April 2, 1915

RUSH, W. A., Chief Inspector, Radio Telegraph Service of the Canadian Government, Ottawa, Canada; res., 92 First Ave., Ottawa, Canada.* A Oct. 15, 1915
M Oct. 15, 1915

RYAN, HARRIS J., Professor Electrical Engineering, Leland Stanford, Jr., University, Stanford University, Cal.; res., P. O. Stanford University, Cal.* M July 7, 1915

SARNOFF, DAVID, Secretary of the Institute, Assistant Traffic Manager and Contract Manager, Marconi Wireless Telegraph Co., 233 Broadway, New York City; res., 2063 Mapes Ave., Bronx, New York City. A Dec. 4, 1915
M Nov. 11, 1915

SHOEMAKER, HARRY, Research Engineer, Marconi Wireless Telegraph Co., Aldene, N. J.* Charter Member W.I. M Feb. 14, 1915

SLOAN, A. KELLOGG, Electrical and Mechanical Engineer, Sloan Engineering Co., 240 Hall St., Brooklyn, N. Y.; res., 275 Washington Ave., Brooklyn, N. Y.* A Charter Member W.I. M Sept. 22, 1915

SÖRENSEN, AAGE S. M., Research Engineer, Goldschmidt Hoch Frequenz Maschine, Gesell., Germany; res., Marien Str. 12, Lichterfelde, Berlin, Germany.* M Sept. 9, 1915

SPAIN, H. Q., Electrical Engineer, Government of British Guiana, General Post Office, Georgetown, British Guiana.* A Aug. 7, 1915
M Oct. 15, 1915

STEIN, ADAM, Jr., Commercial Engineer, Southwestern Bell Telephone System, St. Louis, Mo.; res., 52 Glen Road, Webster Groves, Mo.; care Southwestern Bell Telephone System, 611 Locust St., St. Louis, Mo.* M June 16, 1915

STEINBERGER, LOUIS, Inventor, President and General Manager, Electro Manufacturing Co., Brooklyn, N. Y.; res., 390 Sterling Place, Brooklyn, N. Y.* M June 16, 1915

STEPHENSON, LEONARD W., Engineer, British Columbia Radiotelegraph Service, Canada; res., 928 Old Esquimalt Road, Victoria, B. C., Canada; Room 1, Old Post Office Block, Victoria, B. C., Canada.* M April 8, 1915

SWEET, CMDR. GEO. C., Radio Officer, Navy Yard, Mare Island, Cal.* M Oct. 15, 1915

*Denotes mailing address

TAYLOR, ALBERT HOYT, Professor of Physics, University of North Dakota, Grand Forks, N. D.*; res., Grand Forks, N. D. M Mar. 10, 1916

TAYLOR, JOHN DINGLE, Assistant Engineer, British Columbia Radiotelegraph Service of Canada; res., 928 Old Esquimalt Road, Esquimalt, B. C., Canada; British Columbia Radiotelegraphic Office, 661 Post Office Building, Victoria, B. C., Canada.* M Oct. 13, 1915

THOMPSON, ROY E., General Sales Manager, Kilbourne-Clark Manufacturing Co., 71 Columbia St., Seattle, Wash.*; res., Assembly Hotel, Seattle, Wash. A June 3, 1912
M Dec. 3, 1913

TORIKATA, WICHI, Chief Electrician Wireless Section, Imperial Japanese Electro-Technical Laboratory, 1984 Oi-Machi, Tokyo, Japan.* A Dec. 3, 1913
M Dec. 3, 1913

UYEDA, YOSHITAKE, Lieutenant Commander, Japanese Navy; res., 1339 Navy, Arajiku, Omori, Tokio, Japan.* M July 7, 1915

VANSIZE, WILLIAM BALDWIN, Patent Expert and Attorney, Marconi Wireless Telegraph Co. of America, New York City; res., 181 Woodruff Ave., Brooklyn, N. Y.* A April 22, 1914
M July 7, 1915

WALTON, CAPT. JOHN Q., In charge Radio Apparatus, Treasury Department, U. S. Coast Guard, Washington, D. C.* A Jan. 22, 1913
M April 2, 1913

WATERMAN, FRANK N., Mechanical and Electrical Engineer; res., 25 Norwood Ave., Summit, N. J.; 100 Broadway, New York City.* A Dec. 4, 1912
M June 16, 1915

WEBSTER, A. G., Prof., Department of Physics, Clark University, Worcester, Mass.* M May 22, 1914

WELSH, JOSEPH H., Electrical Draftsman, U. S. Navy, Machinery Division, Brooklyn, N. Y.; res., 153 West 83rd St., New York City.* M June 16, 1915

WOLF, BENJ., Radio Inspector, U. S. Government; res., Assembly Hotel, Seattle, Wash.; Federal Building, Seattle, Wash.* A Oct. 15, 1913
M Jan. 20, 1915

WOODLAND, WILLIAM C., Manager, Transformer Department, Packard Electric Co., Warren, O.; res., 625 Mahoning Ave., Warren, O.* M May 26, 1915

*Denotes mailing address

LIST OF ASSOCIATES

Listed Alphabetically

ABBEY, HAROLD, Radio Operator, Kilbourne & Clark Manufacturing Co., Seattle, Wash.*; res., Eugene, Ore., R. No. 1. A Oct. 13, 1914

ABBOTT, E. G., Captain, Signal Corps, U. S. Army; 39 Whitehall St., New York City.* A Oct. 15, 1914

ABBOTT, RAYMOND B., Instructor in Physics, University of California, Room 205, South Hall; res., 1803 Cedar St., Berkeley, Cal.; Room 205, South Hall, University of California, Berkeley, Cal.* A July 1, 1915

ADAMS, RALPH E., Wireless Operator, Harbor Department, City of Seattle, Seattle, Wash.; res., 1162 Thomas St., Seattle, Wash.; Port Wardens Office, Pier No. 1, Seattle, Wash.* A Sept. 12, 1915

AGNER, CHESTER M., Radio Experimenter; res., 1015 I St., Sacramento, Cal.* A Aug. 12, 1915

ALBERT, WILLIAM V., Electrician, (Radio), res., 122 S. 6th St., Reading, Pa. A Feb. 24, 1915

ALLISON, WILLIAM H., Clerk, New England Telephone & Telegraph Co., Worcester, Mass.; res., 37 Plantation St., Worcester, Mass.* A June 3, 1915

ANDERSON, LLOYD C., Inspector, Automatic Fire Alarm Co.; res., 138 E. 38th St., New York City.* A July 8, 1915

ANDREWS, CLYDE BYRON, Branch Manager, Postal Telegraph Cable Co., Santa Barbara, Cal.; res., Hotel Potter, Santa Barbara, Cal.* A Oct. 13, 1915

ANSELM, SILVIO CALVIN, Engineer, Marconi Wireless Telegraph Co., Ltd., Marconi House, Strand, London, England*; res., Ashleigh, Broad Road Sale, Cheshire, England. A Dec. 15, 1915

ANSTETT, CHARLES EATON, Third Lieutenant, U. S. Coast Guard, U. S. Navy; res., Arundel Cove, Md.* A Sept. 8, 1915

ANTHES, WILLIAM FREDERICK, Jr., Telegrapher, Western Union; res., San Jose, Cal., Y. M. C. A.* A Oct. 13, 1915

APGAR, CHAS. E., Haynes Auto Co., New York City; res., Westfield, N. J.* A April 2, 1915

APPLEGATE, D. V., Inspector, Marconi Wireless Telegraph Co., 55 Duane St., New York City; res., 2181 Bedford Ave., Brooklyn, N. Y. A Jan. 7, 1915

ARMOR, J. C., Transformer, Engineering Department, General Electric Co., Pittsfield, Mass.; res., 97 Lennox Ave., Pittsfield, Mass.* A Charter Member S.W.T.E.

ARMSTRONG, EDWIN H., Research Assistant, Professor M. I. Pupin, Columbia University; res., 1032 Warburton Ave., Yonkers, N. Y.; care of Professor Pupin, Columbia University, New York City.* A Oct. 28, 1915

ARMSTRONG, ROY E., Manager, Marconi Wireless Telegraph Co., Port Arthur, Tex.*; res., 30 Wilmore St., Mattapan, Mass. A Oct. 14, 1915

ARNEY, C. BURDETTE, Chief Electrician, (Radio), U. S. Navy; res., 912 8th St., S. E., Washington, D. C.; U. S. S. "New Hampshire," care of Postmaster, New York. A Feb. 10, 1915

ARPS, MERVIN W., Chief Electrician, (Radio), U. S. Navy; res., 620 Sacramento St., Vallejo, Cal.; Navy Yard, Mare Island, Vallejo, Cal.* A Dec. 16, 1915

ASHTON, JOHN O., Electrical Salesman, Usona Manufacturing Co., 1 Hudson St., New York City; res., 7 Halsey Place, Yonkers, N. Y. A Sept. 3, 1915

AUSTIN, CHARLES L., Manufacturer; res., 651 E. Salmon St., Portland, Ore.* A July 7, 1915

AYLSWORTH, HOWARD G., Electrical Supplies; res., 1953 Lyon St., San Francisco, Cal.; 149 New Montgomery St., San Francisco, Cal.* A Dec. 3, 1915

BAIRD, EDW. A., Manager, Western Union Telegraph Co., 249 5th Ave., Pittsburgh, Pa.; res., 407 Oakland Ave., Pittsburgh, Pa.* A Feb. 10, 1915

*Denotes mailing address

BAKER, JESS E., Compositor, H. S. Crocker Co., San Francisco, Cal.; res., 2013 Lorina St., Berkeley, Cal.* A Sept. 9, 1914

BALDWIN, JOHN G., Experimenter; res., Hope, N. D.* A Dec. 15, 1915

BARD, NATHAN W., Jr., Radio Operator, Marconi Wireless Telegraph Co.; res., 11 Washington Ave., Irvington, N. J.* A Aug. 26, 1914

BARKER, HENRY W., Construction Department, Marconi Co., 502 Maritime Bldg.; res., 4435 Sunset Place, Seattle, Wash.* A Sept. 8, 1915

BARKLEY, WILLIAM J., Assistant General Manager, Wireless Specialty Apparatus Co., 126 State St., Boston, Mass.* A June 12, 1915

BARNES, IRVING T., Radio Operator, Marconi Wireless Telegraph Co.; res., 377 Main St., Waltham, Mass.* A July 8, 1914

BARRETT, HOWARD A., Instructor, Barrett's School of Telegraphy; res., 43 E. 152nd St., New York City.* A April 15, 1914

BARRETT, JOHN H., Superintendent, Barrett Wireless School; res., 64 Lafayette Place, Greenwich, Conn.* A July 1, 1914

BARSBY, WILLIAM HENRY, Wireless Operator, Marconi Wireless Telegraph Co., Marshalls, Cal.* A Dec. 15, 1915

BARSTOW, FRANK HACKETT, Chief Operator, Federal Telegraph Co., No. 7 Board of Trade, Portland, Ore.; res., Box 83, Lents, Ore.* A July 7, 1915

BARTH, JULIAN, Assistant Research Engineer, Marconi Wireless Telegraph Co., Roselle Park, N. J.; res., 538 W. 124th St., New York City.* A Feb. 14, 1915

BATCHELLER, ARTHUR, Electrical Engineer and Instructing Engineer, Boston School of Telegraphy, 18 Boylston St., Boston, Mass.; res., Wellesley Park, Wellesley, Mass.* A Aug. 26, 1914

BAUM, WILLIAM A., Manager, Hygiene Department, Life Extension Institute, 25 W. 45th St., New York City; res., 230 Greenwood Ave., Richmond Hill, L. I., N. Y.* A Jan. 27, 1915

BAXTER, ARTHUR W., Manager, East San Pedro Station, Marconi Wireless Telegraph Co.; res., East San Pedro Cal.; care of Marconi Station, Box 60, East San Pedro, Cal.* A Jan. 20, 1915

BAXTER, GEORGE E., Station Manager, Marconi Wireless Telegraph Co.; res., Marshall, Marin Co., Cal.; Marconi Wireless Telegraph Co., Marshall, Marin Co., Cal.* A July 7, 1915

BAXTER, O'HEIL, Letter Carrier, U. S. Post Office, 160 W. 83rd St.; res., 60 W. 87th St., New York City.* A July 28, 1915

BLAL, RALPH RAYMOND, Electrical Engineer, Federal Telegraph Co., San Francisco, Cal.; res., 412 Tasso St., Palo Alto, Cal.* A May 26, 1915

BEAM, VICTOR S., Consulting Engineer; res., 55 John St., New York City.* A Feb. 4, 1914

BLHM, LUDWIG FREDERICK, Testman's Assistant, Chesapeake & Potomac Telephone Co., Baltimore, Md.; res., 1519 Poplar Grove St., Walbrook, Baltimore, Md.* A Dec. 15, 1915

BLUR, HARRY, Radio Operator and Experimenter, American Hawaiian Steamship Co.; res., 1009 Willow Ave., Hoboken, N. J.* A Oct. 14, 1914

BENEDICT, PAUL M., Chief Engineer, The Barnes & Robert Manufacturing Co., Milldale, Conn.*; res., 208 St. Roman St., New Haven, Conn. A Oct. 28, 1914

BENNING, B. S., Engineer, Marconi Wireless Telegraph Co., Ltd.; res., Marconi House, Strand, London, W. C., England.* A June 3, 1912

BIREL, MILTON, Director, New York School of Telegraphy; res., 1116 Hoe Ave., Bronx, New York City.* A July 1, 1914

BERGMAN, LESTER J., Radio Operator, Tropical Radio Telegraph Co., 17 Battery Place, New York City; res., 3612 Tyson St., Tacony, Philadelphia, Pa. A Aug. 12, 1914

BERKEY, RUSSELL STANLEY, Midshipman, U. S. Navy, U. S. Naval Academy; res., Box 266, Goshen, Ind.; Bancroft Hall, U. S. Naval Academy, Annapolis, Md.* A Sept. 8, 1915

BESLEY, STEPHEN H., Professor of Physical Science, Granite High School; res., 171 E. 7th South St., Salt Lake City, Utah.* A Dec. 15, 1915

BEVERAGE, HAROLD HENRY, Testman, General Electric Co., Schenectady, N.Y.; res., 23 N. Henry St., Schenectady, N. Y.* A Mar. 31, 1915

BICAK, EDW. THOS., Radio Telegrapher, Marconi Telegraph Co., New York City; res., 357 E. 72nd St., New York City. A April 22, 1914

BIGELMAN, HARRY C., Jr., Chief Electrician (Radio), U. S. Navy; res., 139 Springfield Ave., Rutherford, N. J.; Box 314, Key West, Fla.* A Jan. 13, 1915

*Denotes mailing address

LIST OF ASSOCIATES

Listed Alphabetically

ABBEY, HAROLD, Radio Operator, Kilbourne & Clark Manufacturing Co., Seattle, Wash.*; res., Eugene, Ore., R. No. 1. A Oct. 13, 1915

ABBOTT, E. G., Captain, Signal Corps, U. S. Army; 39 Whitehall St., New York City.* A Oct. 15, 1913

ABBOTT, RAYMOND B., Instructor in Physics, University of California, Room 205, South Hall; res., 1803 Cedar St., Berkeley, Cal.; Room 205, South Hall, University of California, Berkeley, Cal.* A July 1, 1914

ADAMS, RALPH E., Wireless Operator, Harbor Department, City of Seattle, Seattle, Wash.; res., 1102 Thomas St., Seattle, Wash.; Port Wardens Office, Pier No. 1, Seattle, Wash.* A Sept. 22, 1915

AGNER, CHESTER M., Radio Experimenter; res., 1015 I St., Sacramento, Cal.* A Aug. 12, 1914

ALBERT, WILLIAM V., Electrician, (Radio), res., 422 S. 6th St., Reading, Pa. A Feb. 24, 1915

ALLISON, WILLIAM H., Clerk, New England Telephone & Telegraph Co., Worcester, Mass.; res., 37 Plantation St., Worcester, Mass.* A June 3, 1914

ANDERSON, LLOYD C., Inspector, Automatic Fire Alarm Co.; res., 138 E. 38th St., New York City.* A July 8, 1914

ANDREWS, CLYDE BYRON, Branch Manager, Postal Telegraph Cable Co., Santa Barbara, Cal.; res., Hotel Potter, Santa Barbara, Cal.* A Oct. 13, 1915

ANSELM, SILVIO CALVIN, Engineer, Marconi Wireless Telegraph Co., Ltd., Marconi House, Strand, London, England*; res., Ashleigh, Broad Road Sale, Cheshire, England. A Dec. 15, 1915

ANSTETT, CHARLES EATON, Third Lieutenant, U. S. Coast Guard, U. S. Navy; res., Arundel Cove, Md.* A Sept. 8, 1915

ANTHES, WILLIAM FREDERICK, Jr., Telegrapher, Western Union; res., San Jose, Cal., Y. M. C. A.* A Oct. 13, 1915

APGAR, CHAS. E., Haynes Auto Co., New York City; res., Westfield, N. J.* A April 2, 1913

APPLEGATE, D. V., Inspector, Marconi Wireless Telegraph Co., 55 Duane St., New York City; res., 2181 Bedford Ave., Brooklyn, N. Y. A Jan. 7, 1914

ARMOR, J. C., Transformer, Engineering Department, General Electric Co., Pittsfield, Mass.; res., 97 Lennox Ave., Pittsfield, Mass.* A Charter Member S.W.T.E.

ARMSTRONG, EDWIN H., Research Assistant, Professor M. I. Pupin, Columbia University; res., 1032 Warburton Ave., Yonkers, N. Y.; care of Professor Pupin, Columbia University, New York City.* A Oct. 28, 1914

ARMSTRONG, ROY E., Manager, Marconi Wireless Telegraph Co., Port Arthur, Tex.*; res., 30 Wilmore St., Mattapan, Mass. A Oct. 14, 1914

ARNEY, C. BURDETTE, Chief Electrician, (Radio), U. S. Navy; res., 912 8th St., S. E., Washington, D. C.; U. S. S. "New Hampshire," care of Postmaster, New York. A Feb. 10, 1915

ARPS, MERVIN W., Chief Electrician, (Radio), U. S. Navy; res., 620 Sacramento St., Vallejo, Cal.; Navy Yard, Mare Island, Vallejo, Cal.* A Dec. 10, 1914

ASHTON, JOHN O., Electrical Salesman, Usona Manufacturing Co., 1 Hudson St., New York City; res., 7 Halcyon Place, Yonkers, N. Y. A Sept. 3, 1913

AUSTIN, CHARLES L., Manufacturer; res., 651 E. Salmon St., Portland, Ore.* A July 7, 1915

AYLSWORTH, HOWARD G., Electrical Supplies; res., 1953 Lyon St., San Francisco, Cal.; 149 New Montgomery St., San Francisco, Cal.* A Dec. 3, 1913

BAIRD, EDW. A., Manager, Western Union Telegraph Co., 249 5th Ave., Pittsburgh, Pa.; res., 407 Oakland Ave., Pittsburgh, Pa.* A Feb. 10, 1915

*Denotes mailing address

BAKER, JESS E., Compositor, H. S. Crocker Co., San Francisco, Cal.; res., 2913 Lorina St., Berkeley, Cal.* A Sept. 9, 1914

BALDWIN, JOHN G., Experimenter; res., Hope, N. D.* A Dec. 15, 1915

BARD, NATHAN W., Jr., Radio Operator, Marconi Wireless Telegraph Co.; res., 12 Washington Ave., Irvington, N. J.* A Aug. 20, 1914

BARKER, HENRY W., Construction Department, Marconi Co., 502 Maritime Bldg.; res., 4435 Sunset Place, Seattle, Wash.* A Sept. 8, 1915

BARKLEY, WILLIAM J., Assistant General Manager, Wireless Specialty Apparatus Co., 126 State St., Boston, Mass.* A June 12, 1913

BARNES, IRVING T., Radio Operator, Marconi Wireless Telegraph Co.; res., 377 Main St., Waltham, Mass.* A July 8, 1914

BARRETT, HOWARD A., Instructor, Barrett's School of Telegraphy; res., 343 E. 152nd St., New York City.* A April 15, 1914

BARRETT, JOHN H., Superintendent, Barrett Wireless School; res., 64 Lafayette Place, Greenwich, Conn.* A July 1, 1914

BARSBY, WILLIAM HENRY, Wireless Operator, Marconi Wireless Telegraph Co., Marshalls, Cal.* A Dec. 15, 1915

BARSTOW, FRANK HACKETT, Chief Operator, Federal Telegraph Co., No. 7 Board of Trade, Portland, Ore.; res., Box 83, Lents, Ore.* A July 7, 1915

BARTH, JULIAN, Assistant Research Engineer, Marconi Wireless Telegraph Co., Roselle Park, N. J.; res., 538 W. 124th St., New York City.* A Feb. 14, 1913

BATCHELLER, ARTHUR, Electrical Engineer and Instructing Engineer, Boston School of Telegraphy, 18 Boylston St., Boston, Mass.; res., Wellesley Park, Wellesley, Mass.* A Aug. 20, 1914

BAUM, WILLIAM A., Manager, Hygiene Department, Life Extension Institute, 25 W. 45th St., New York City; res., 239 Greenwood Ave., Richmond Hill, L. I., N. Y.* A Jan. 27, 1915

BAXTER, ARTHUR W., Manager, East San Pedro Station, Marconi Wireless Telegraph Co.; res., East San Pedro Cal.; care of Marconi Station, Box 60, East San Pedro, Cal.* A Jan. 20, 1915

BAXTER, GEORGE E., Station Manager, Marconi Wireless Telegraph Co.; res., Marshall, Marin Co., Cal.; Marconi Wireless Telegraph Co., Marshall, Marin Co., Cal.* A July 7, 1915

BAXTER, OTHEL, Letter Carrier, U. S. Post Office, 160 W. 83rd St.; res., 60 W. 87th St., New York City.* A July 28, 1915

BEAL, RALPH RAYMOND, Electrical Engineer, Federal Telegraph Co., San Francisco, Cal.; res., 412 Tasso St., Palo Alto, Cal.* A May 26, 1915

BEAM, VICTOR S., Consulting Engineer; res., 55 John St., New York City.* A Feb. 4, 1914

BEHM, LUDWIG FREDERICK, Testman's Assistant, Chesapeake & Potomac Telephone Co., Baltimore, Md.; res., 1519 Poplar Grove St., Walbrook, Baltimore, Md.* A Dec. 15, 1915

BEHR, HARRY, Radio Operator and Experimenter, American Hawaiian Steamship Co.; res., 1009 Willow Ave., Hoboken, N. J.* A Oct. 14, 1914

BENEDICT, PAUL M., Chief Engineer, The Barnes & Robert Manufacturing Co., Milldale, Conn.*; res., 208 St. Ronan St., New Haven, Conn. A Oct. 28, 1914

BENNING, B. S., Engineer, Marconi Wireless Telegraph Co., Ltd.; res., Marconi House, Strand, London, W. C., England.* A June 3, 1912

BEREL, MILTON, Director, New York School of Telegraphy; res., 1116 Hoe Ave., Bronx, New York City.* A July 1, 1914

BEROMAN, LESTER J., Radio Operator, Tropical Radio Telegraph Co., 17 Battery Place, New York City; res., 3012 Tyson St., Tacony, Philadelphia, Pa. A Aug. 12, 1914

BERKEY, RUSSELL STANLEY, Midshipman, U. S. Navy, U. S. Naval Academy; res., Box 266, Goshen, Ind.; Bancroft Hall, U. S. Naval Academy, Annapolis, Md.* A Sept. 8, 1915

BESLEY, STEPHEN H., Professor of Physical Science, Granite High School; res., 171 E. 7th South St., Salt Lake City, Utah.* A Dec. 15, 1915

BEVERAGE, HAROLD HENRY, Testman, General Electric Co., Schenectady, N. Y.; res., 23 N. Henry St., Schenectady, N. Y.* A Mar. 31, 1915

BICAK, EDW. THOS., Radio Telegrapher, Marconi Telegraph Co., New York City; res., 357 E. 72nd St., New York City.* A April 22, 1914

BIGELMAN, HARRY C., Jr., Chief Electrician (Radio), U. S. Navy; res., 139 Springfield Ave., Rutherford, N. J.; Box 314, Key West, Fla.* A Jan. 13, 1915

*Denotes mailing address

BIGELOW, PAUL T., Manager, Stock Department, Kilbourne & Clark Manufacturing Co.; res., 5314 8th Ave., N. E., Seattle, Wash.; Kilbourne & Clark Manufacturing Co., 71 Columbia St., Seattle, Wash.* A Sept. 22, 1915

BISSING, WILLIAM F., Attorney at Law, 2 Rector St., New York City*; res., New York City. A Charter Member W.I. A July 28, 1915

BLACK, ROBERT BOYD, Chief Operator, Federal Telegraph Co., Los Angeles, Cal.; res., 519 Frederick St., San Francisco, Cal.; Federal Telegraph Co., Mercantile Place, Los Angeles, Cal.* A July 1, 1914

BLAKE, CHARLES H., Chief Operator, Federal Telegraph Co., 2225 Concord St., Los Angeles, Cal.; res., 3914 Brighton Ave., Los Angeles, Cal.* A July 8, 1914

BLANKENSHIP, CHARLES, Assistant Radio Inspector, U. S. Government; Department of Commerce, Custom House, New York, N. Y.* A Sept. 8, 1915

BLATTERMAN, ALBERT SHELBY, Instructor in Electrical Engineering and Consulting Engineer, Washington University, St. Louis, Mo.; res., 45 Lewis Place, St. Louis, Mo.* A Sept. 30, 1914

BOUDREAU, MOSE, Electrician, Sergeant, C. C. C.; res., Fort Mills, P. I.; Fort Mills, Corregidor, P. I.* A Jan. 5, 1916

BOUTWELL, WILLARD, Service Man, Westinghouse Electric Manufacturing Co., 560 1st St., S., Seattle, Wash.; res., 814 Columbia St., Seattle, Wash.* A Jan. 13, 1915

BOWER, CLARENCE E., Radio Electrician, Tropical Radio Telegraph Co., 321 St. Charles St., New Orleans, La.*; res., Bay Shore Blvd., Ballast Point, Tampa, Fla. A Aug. 26, 1914

BOWERS, ALBERT F., Manager, Marconi Wireless Telegraph Co., 601 American Bldg., Baltimore, Md.*; res., 402 S. Payson St., Baltimore, Md. A Sept. 8, 1915

BOYLE, CHARLES WILLIAM, Constructional Radio Engineer, Lieutenant I. R. N., Government of British Guiana, South America; res., Thorpe Hall, Thorpe, North Wakefield, Yorkshire, England; care of His Excellency, The Governor, British Guiana, South America.* A May 12, 1915

BREMER, EDMUND H., Undergraduate Student, Central High School; res., 301 W. Forest Ave., Detroit, Mich.* A July 1, 1914

BRIZZOLARI, ANTHONY J., Radio Experimenter; res., 666 61st St., Brooklyn, N. Y.* A Oct. 13, 1915

BROCKMAN, FRANCIS COMENIUS, Test Laboratory Assistant, Marconi Wireless Telegraph Co. of America, Roselle Park, N. J.; res., 3 North Main St., Nazareth, Pa.; 226 Walnut St., Roselle Park, N. J.* A July 28, 1915

BROGGINI, CLAUD E., Assistant to Buyer, Montgomery Ward & Co.; res., 2605 8th Ave., New York City.* A Oct. 13, 1915

BROMLEY, ARTHUR C., Operator, Marin Gas Engineers, Seattle, Wash.*; res., 1240 W. Thomas St., Seattle, Wash. A Mar. 31, 1915

BROOKS, WALLACE L., Assistant Engineer, Standardizing Laboratory, General Electric Co., Schenectady, N. Y.; res., 207 Parkwood Blvd., Schenectady, N. Y.* A Sept. 8, 1915

BROWN, ANDREW, Radio Operator, Alaska Steamship Co., Pier No. 2, Seattle, Wash.*; res., Seattle, Wash. A July 1, 1914

BROWN, ARCHIE S., Radio Drafting, U. S. Navy, Navy Yard, Mare Island, Cal.; res., 635 Georgia St., Vallejo, Cal.* A July 24, 1913

BROWN, D. S., Jr., Student, Stevens Institute of Technology, Hoboken, N. J.; res., 206 W. 80th St., New York City. A April 22, 1914

BROWN, EDWARD H., Student, Shaw High School, Cleveland, O.; res., 2208 Harcourt Drive, Ambler Heights, Cleveland, O.* A Sept. 3, 1913

BROWN, GEORGE, Chief Radio Electrician, U. S. Torpedo Station, Newport, R. I.; res., Newport, R. I. A June 17, 1914

BROWN, ROBERT LEE, Student; res., 634 Franklin St., Napa, Cal.* A April 1, 1914

BROWN, ROLLA, Clerk, Interstate Commerce Commission, 1319 F St., N. W., Washington, D. C.*; res., 505 Rhode Island Ave., N. E., Washington, D. C. A July 1, 1914

BROWN, WALRAM S., Private Secretary, A. Pagenstecher, 30 E. 42nd St., New York City; res., 1565 E. 12th St., Brooklyn, N. Y.* A June 12, 1913

BROWNLIE, ROLAND, Laboratory Assistant, Wireless Specialty Apparatus Co., Boston, Mass.; res., 40 Teele Ave., West Somerville, Mass.*

*Denotes mailing address

†As of 1915

BRYANT, MARQUIS V., Assistant Cashier, Rockland Light & Power Co., Nyack, N. Y.; res., 6 S. Highland Ave., Nyack, N. Y.* A July 1, 1914

BUCHNER, C. R., Electrician (Radio), U. S. Navy; res., 612 44th St., Brooklyn, N. Y.; U. S. S. "New York," care of Postmaster, New York City.* A May 12, 1915

BUCKINGHAM, ELDRIDGE, Student, Harvard University, Cambridge, Mass.; res., 2760 Scott St., San Francisco, Cal.; 23B Standish Hall, Harvard University, Cambridge, Mass.* A July 8, 1914

BULLOCK, ASA C., Chief Electrician, Peoples Light & Power Co., Gallup, N. M.; res., P. O. Box 554, Hobart, Ind.* A July 1, 1914

BURNSIDE, DON G., Efficiency Department, Dodge Bros. Motor Car Co., 112 Hendrie Ave., Detroit, Mich.*; res., Point Pleasant, W. Va. A Nov. 4, 1912

BUTTS, LORENZO G., Radio Draftsman, U. S. Navy Department, Washington, D. C.; res., 1436 A St., S. E., Washington, D. C.; Radio Station, Navy Yard, Washington, D. C.* A Oct. 13, 1915

BUTTERFIELD, GEORGE W., Radio Operator, Marconi Wireless Telegraph Co., John Wanamaker Bldg., Philadelphia, Pa.*; res., 14 Birch Hill Ave., Wakefield, Mass. A Jan. 22, 1913

CADMUS, RICHARD G., Radio Inspector, Department of Commerce, Custom House, Baltimore, Md. A Sept. 9, 1914

CADWELL, EARLE M., Radio Operator, Tropical Radio Telegraph Co., Brooklyn, N. Y.; res., 6412 15th St., Brooklyn, N. Y.* A Dec. 16, 1914

CADY, WALTER G., Professor of Physics, Wesleyan University; res., 77 High St., Middletown, Conn.* A July 24, 1913

CAMP, V. F., Automobile Salesman; res., Brightwaters, L. I., N. Y.; 1842 Broadway, New York City.* A July 7, 1915

CANNON, CLIFFORD H., Radio Constructing, Federal Telegraph Co., San Francisco, Cal.; res., 3047 23rd St., San Francisco, Cal.; Federal Telegraph Co., Hobart Bldg., San Francisco, Cal.* A Oct. 14, 1914

CARDWELL, ALLEN D., Chief Engineer, American Telegraph Type-writer Co., 81 Prospect St., Brooklyn, N. Y.; res., 1120 E. 15th St., Brooklyn, N. Y.* A July 1, 1914

CARLISLE, ROBERT R., Instructor, Marconi Wireless Telegraph Co., Kahuku, Oahu, T. H.*; res., Kahuku, Oahu, T. H. A Sept. 8, 1915

CARLSON, JOHN O., Radio Operator, Alaska Steamship Co., Pier 2, Seattle, Wash.; res., 2322 12th Ave., N., Seattle, Wash.* A April 1, 1914

CAROLIN, NORBERT, Electrical Assistant, U. S. Signal Service, 39 Whitehall St., New York City; res., 100 E. 34th St., Co. A, Signal Corps, N. G., New York City.* A April 22, 1914

CARR, STEPHEN C., Student, College of the City of New York; res., 18 W. 90th St., New York City.* A Mar. 31, 1915

CARTER, MAURICE G., Radio Operator, National Electric Signaling Co.; res., 43 Auburn Ave., Somerville, Mass.; New England Steamship Co., Newport, R. I.* A Oct. 14, 1914

CARTIER, JACQUES N., Radio Engineer and Aviator, Canadian Militia, Division Signal Co., Canadian Expeditionary Co., London, England; res., Ste. Madeline, Quebec, Canada; Division Signal Co., Section I, Canadian Expeditionary Co., London, England.* A Sept. 9, 1911

CATTELL, GILBERT W., Student, University of California; res., 509 Hale St., Palo Alto, Cal.* A Nov. 17, 1915

CAUTILLI, PETER, Instructional Engineer, Don Bosco Institute, 507 S. 9th St., Philadelphia, Pa.*; res., 820 Mountain St., Philadelphia, Pa. A July 1, 1914

CHADBOURNE, W. E., Expert Radio Aid, U. S. Navy, Boston, Mass.; res., 41 Newport St., Dorchester, Mass.; U. S. Navy Yard, Boston, Mass.* A April 15, 1914

CHAMBERLAIN, E. T., Commissioner of Navigation, U. S. Department of Commerce, Washington, D. C. A Oct. 13, 1915

CHAMBERLIN, JOSEPH SAXTON, Telegraph Operator, Postal Telegraph Co., San Francisco, Cal.; res., 215 Powell St., Ridgway, Pa.; 480 Pine St., San Francisco, Cal.* A Sept. 30, 1914

CHANDLER, C. DeF., Captain, U. S. Army, Fort Leavenworth, Kans.* A July 28, 1915

CHANDLER, CHARLES K., Assistant Engineer, Marconi Wireless Telegraph Co., Ltd.; res., The Bungalow, Marconi Wireless Station, Poldhu, Mullion, Cornwall, England.*

*Denotes mailing address

BIGELOW, PAUL T., Manufacturing Co., res. 1215 N. W. 1st St., Wash.
Kilbourne & Clark, Manufacturing Co., res. 1215 N. W. 1st St., Wash.

BIESING, WILLIAM F., res. 1215 N. W. 1st St., Wash.
City, res. New York City.

BLACK, ROBERT BOYD, res. 1215 N. W. 1st St., Wash.
Telegraph Co., res. 1215 N. W. 1st St., Wash.

BLAKE, CHARLES H., res. 1215 N. W. 1st St., Wash.
Concord St., Los Angeles, Cal.

BLANKENSHIP, CHARLES, res. 1215 N. W. 1st St., Wash.
Department of Commerce, res. 1215 N. W. 1st St., Wash.

BLATTERMAN, ALBERT SHILBY, res. 1215 N. W. 1st St., Wash.
ing and Consulting, res. 1215 N. W. 1st St., Wash.

BOUDREAU, MOSE, res. 1215 N. W. 1st St., Wash.
P. L. Fort Mills, res. 1215 N. W. 1st St., Wash.

BOUTWELL, WILLARD, res. 1215 N. W. 1st St., Wash.
facturing Co., res. 1215 N. W. 1st St., Wash.

BOWER, CLARENCE E., res. 1215 N. W. 1st St., Wash.
Co., res. 1215 N. W. 1st St., Wash.

BOWERS, ALBERT F., res. 1215 N. W. 1st St., Wash.
American Bldg., res. 1215 N. W. 1st St., Wash.

BOYLE, CHARLES WILLIAM, res. 1215 N. W. 1st St., Wash.
tenant, res. 1215 N. W. 1st St., Wash.

BREMER, EDMUND H., res. 1215 N. W. 1st St., Wash.
res. 1215 N. W. 1st St., Wash.

BRIZZOLARI, ANTHONY J., res. 1215 N. W. 1st St., Wash.
Brooklyn, N. Y.

BROCKMAN, FRANCIS COMENUS, res. 1215 N. W. 1st St., Wash.
Marconi Wireless Telegraph Co., res. 1215 N. W. 1st St., Wash.

BROGGINI, CLAUDE E., res. 1215 N. W. 1st St., Wash.
res. 1215 N. W. 1st St., Wash.

BROMLEY, ARTHUR C., res. 1215 N. W. 1st St., Wash.
Wash.; res. 1215 N. W. 1st St., Wash.

BROOKS, WALLACE L., res. 1215 N. W. 1st St., Wash.
tory, General Electric Co., res. 1215 N. W. 1st St., Wash.

BROWN, ANDREW, res. 1215 N. W. 1st St., Wash.
Seattle, Wash.; res. 1215 N. W. 1st St., Wash.

BROWN, ARCHIE S., res. 1215 N. W. 1st St., Wash.
Island, Cal.; res. 1215 N. W. 1st St., Wash.

BROWN, D. S., Jr., res. 1215 N. W. 1st St., Wash.
N. J.; res. 1215 N. W. 1st St., Wash.

BROWN, EDWARD H., res. 1215 N. W. 1st St., Wash.
res. 1215 N. W. 1st St., Wash.

BROWN, GEORGE, res. 1215 N. W. 1st St., Wash.
Newport, R. I.; res. 1215 N. W. 1st St., Wash.

BROWN, ROBERT LEE, res. 1215 N. W. 1st St., Wash.
res. 1215 N. W. 1st St., Wash.

BROWN, ROLLA, res. 1215 N. W. 1st St., Wash.
St., N. W., Washington, D. C.; res. 1215 N. W. 1st St., Wash.

BROWN, WALRAH S., res. 1215 N. W. 1st St., Wash.
St., New York City; res. 1215 N. W. 1st St., Wash.

BROWNLIE, ROLAND, res. 1215 N. W. 1st St., Wash.
paratus Co., res. 1215 N. W. 1st St., Wash.

*Denotes mailing address 1As of 1915

res. 1215 N. W. 1st St., Wash.

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*Denotes mailing address

CHAPMAN, FRANCIS W., Director, Technological Department, Newberry College, Newberry, S. C.; res., Newberry, S. C. A June 3, 1914

CHAPMAN, HARRY E., Printer, 284 Ashmun St.; res., 320 Wetherfield Ave., Hartford, Conn. A June 3, 1914

CHARLEY, HERBERT, Wireless Operator, National Electric Signaling Co.; res., 683 Brook Ave., New Bedford, Mass. A Nov. 17, 1913

CHESWELL, ERNEST CONANT, Instructor, Electrical Engineering, University of Maine, Orono, Me.; res., Orono, Me. A Feb. 21, 1914

CHILCOTE, LAURENCE R., Student, University of California, Berkeley, Cal.; res., 2619 Ashby Ave., Berkeley, Cal. A Aug. 12, 1914

CHILDS, ROY, Chief Radio Electrician, U. S. Navy; res., Newport, R. I.; U. S. S. "Hamock," Navy Yard, Philadelphia, Pa. A Jan. 20, 1915

CHILSON, DANIEL GIPSON, Operator Wireless, Port Station, City of Seattle; res., 2113 N. 39th St., Seattle, Wash. A Dec. 15, 1913

CHORD, CALVIN ERNEST, Radio Operator, U. S. Navy; res., Eddysville, Iowa; U. S. S. "South Dakota," Pacific Station, San Francisco, Cal. A Aug. 12, 1914

CHUBB, WILLIAM MASON, Electrical Engineer, Marconi Wireless Telegraph Co.; res., 24 Warren Road, Framingham, Mass.; Marconi Wireless Telegraph Co., 253 Broadway, New York City. A April 21, 1914

CLARK, CHARLES ROBERT, Naval Officer, in charge Sayville Station, Navy Department, Washington, D. C.; res., Cumberland Hotel, Plattsburgh, N. Y.; Radio Station, Sayville, L. I., N. Y. A July 28, 1914

CLARK, CHARLES MARTIN, Treasurer, The Bradstreet Co.; res., 1035 Madison Ave., New York City. A June 3, 1914

CLARK, KENNETH G., Instructor, Y. M. C. A. Radio School; res., Y. M. C. A. Bldg., S. Hope St., Los Angeles, Cal. A Dec. 15, 1913

CLAUS, JOSEPH HENRY, Chief Electrician (Radio), U. S. Navy; res., 109 N. 53rd St., West Philadelphia, Pa.; U. S. S. "Prairie," rate of Postmaster, New York. A April 21, 1914

CLAYTON, ROYAL S., Radio Operator, National Signaling Co., Brooklyn, N. Y.; Northeastern Steamship Co., Newport, R. I. A April 8, 1914

CLEMENT, LEWIS MASON, Assistant Engineer, in charge of Hawaiian High Powered Stations, Marconi Wireless Telegraph Co., Kalahele, Oahu, T. H.; res., 320 Wayne Ave., Oakland, Cal. A June 3, 1914

COBB, FREDERICK S., Chief Electrician (Radio), U. S. S. "Panther," rate of Postmaster, New York; res., 118 W. 103rd St., New York City. A Feb. 21, 1914

COCKADAY, LAWRENCE M., General Secretary, Cathedral Choir School; res., 227 Audubon Ave., New York City. A Dec. 30, 1913

COFFMAN, RICHARD B., Officer, in charge Naval Radio Station, U. S. Navy; res., Radio, Va.; Naval Radio Service, Radio, Va. A Jan. 13, 1915

COHEN, ALFRED H., Wireless Telephone Experimental Work; res., 1410 29th Ave., Oakland, Cal. A Jan. 13, 1915

COHEN, WALTER A., Audion and Instrument Tester, de Forest Radio Telegraph & Telephone Co., 1391 Sedgwick Ave., New York City; res., 2071 Fifth Ave., New York City. A April 22, 1914

COHN, CHARLES, Salesman, S. Naitova & Co., 215-17 Greene St., New York City; res., 314 Throop Ave., Brooklyn, N. Y. A Mar. 31, 1915

COLE, GEO. E., Radio Inspector, National Electric Signaling Co., 67 35th St., Brooklyn, N. Y.; res., 624 E. 17th St., Brooklyn, N. Y. A Aug. 7, 1915

COLLINS, CHARLES H., Jr., Newspaper Publisher; res., Bay View Hotel, Somers Point, N. J. A Nov. 4, 1912

COLLINS, FRANK J., Carpet Designer-Experimenter, Alex. Smith & Co., Elm St., Yonkers, N. Y.; res., 22 Cedar St., Yonkers, N. Y. A Dec. 15, 1915

COLLINS, JAMES JOSEPH, Newfoundland Superintendent, Marconi Wireless Telegraph Co. of Canada; res., Osborne House, St. Johns, Newfoundland. A July 28, 1915

COLLISON, P. B., New York Edison Co.; res., 172 Maple St., Brooklyn, N. Y. A Charter Member W.I. A Dec. 15, 1915

COLPITTS, EDWIN H., Research Engineer, Western Electric Co., 463 West St., New York City; res., 136 S. Munn Ave., East Orange, N. J. A July 8, 1914

CONLEY, CHARLES B., Assistant Pier Clerk, Pennsylvania Railroad, Delaware Ave. and Christian St., Philadelphia, Pa.; res., 830 N. 40th St., Philadelphia, Pa. A April 15, 1914

* Denotes mailing address

CONNAWAY, HUGH W., Student, Shortridge High School; res., Corner A and Broadway, Indianapolis, Ind. A Sept. 30, 1914

CONNOR, LOVENGO LEWIS, Superintendent, Boston School of Telegraphy, 18 Boylston St., Boston, Mass.; res., 42 Burgess St., Dorchester, Mass. A Mar. 31, 1915

CONWAY, UREY W., Lieutenant, U. S. Navy, Navy Department, Washington, D. C.; res., 1308 Delaware Ave., Wilmington, Del. A Aug. 13, 1913

COOPER, C. B., Kilbourne & Clark Manufacturing Co., Seattle, Wash.; res., 718 9th Ave., Seattle, Wash. A May 22, 1914

COPLAND, HENRY DEPEW, Radio Operator, Marconi Wireless Telegraph Co., Boston, Mass.; res., 42 Huron Ave., North Cambridge, Mass. A Oct. 14, 1914

CORDIS, HENRY G., Electrical Draftsman, U. S. Navy Yard, Puget Sound, Wash.; res., 520 5th St., Bremerton, Wash. A Dec. 15, 1915

COUGHLINOUR, ALLEN J., Master Signal Electrician, Company A, Signal Corps, U. S. Army, Fort Leavenworth, Kan.; res., Fort Leavenworth, Kan. A July 8, 1914

COWPER, NORMAN CLAIR, Practical Electrician; res., Lynbrook, N. Y. A May 22, 1914

CRANDALL, HERBERT LINCOLN, Radio Operator, Marconi Wireless Telegraph Co., 57 Duane St., New York City; res., 97 Foster St., New Haven, Conn. A July 8, 1914

CRISLER, ISAAH, Automatic Time Switch Electrician, Narragansett Electric Light Co., 641 Plainfield, Providence, R. I.; res., 641 Plainfield St., Providence, R. I. A May 6, 1914

CRINSHAW, RUSSELL S., Lieutenant, U. S. Army; res., Richmond, Va.; Bureau of Navigation, Navy Department, Washington, D. C. A Jan. 5, 1915

CREQUE, H. S., Radio Operator; res., 138 Decatur St., Brooklyn, N. Y. A July 8, 1914

CRESSY, LOUIS A., Electrician, Colt Patent Fire Arms Co., Hartford, Conn.; res., 104 Huntington St., Hartford, Conn. A May 22, 1914

CRONIN, JEREMIAH K., Chief Radio Electrician, U. S. Navy; res., 112 Jefferson St., Portsmouth, Va.; U. S. Naval Radio Station, Navy Yard, Norfolk, Va. A Jan. 13, 1915

CROSBY, CARLTON ROLAND, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.; res., 213 Washington St., Brookline, Mass. A Nov. 17, 1915

CROSBY, GEORGE LOCKE, Sales Manager, Roller-Smith Co., 203 Broadway, New York City; res., S. S. Arlington Ave., East Orange, N. J. A Dec. 30, 1915

CURTIS, BENJAMIN FRANKLIN, Wire Telegraph Operator, Mackay Telegraph Cable Co., 334 Austin Ave., Port Arthur, Tex.; res., Port Arthur, Tex. A Nov. 17, 1915

CURTIS, CHARLES DELOS, Superintendent, City Schools; res., Durham, N. D. A Oct. 13, 1915

CURTIS, OTTO E., Radio Operator, Marconi Wireless Telegraph Co., Baltimore, Md.; res., 81 St. Stephen St., Boston, Mass. A Jan. 21, 1914

DAVIS, JAMES N., Electrician Auto Department, Western Union Telegraph Co., New York City; res., 594 Tompkins Ave., Roschank, Staten Island, N. Y. A Oct. 10, 1914

DAHL, CHESTER W., Clerk, Driscoll, Church & Hall, 84 Union St., New Bedford, Mass.; res., 160 Grinnell St., New Bedford, Mass. A July 1, 1914

DALLIN, EDWIN B., Student, Harvard College; res., 69 Oakland Ave., Arlington Heights, Mass.; 3 Hollis Hall, Cambridge, Mass. A Oct. 28, 1914

DALY, T. J. M., Superintendent, Gulf Compress Co., Covington, Tenn.; res., 1233 Madison Ave., Memphis, Tenn. A May 8, 1915

DAME, CHARLES E., Gunner, U. S. Navy; res., 364 Montgomery St., Brooklyn, N. Y.; Radio Laboratory, Navy Yard, Brooklyn, N. Y. A April 21, 1915

DANA, HOMER J., Student, Electrical Engineering, Washington State College, Pullman, Wash. A June 17, 1914

DANE, FRANCIS W., Radio Operator, Tropical Radio Telegraph Co.; res., Main St., Hamilton, Mass. A April 15, 1914

DARBY, GEO. B., Jr., Sales Manager, Edward Darby & Sons Co., 413 N. 18th St., Philadelphia, Pa.; res., 1 Bala Ave., Bala, Pa. A Nov. 17, 1915

DARTINGTON, EDGAR T., Radio Operator, Marconi Wireless Telegraph Co., Wanamaker Station, Philadelphia, Pa.; res., 25 S. 45th St., Philadelphia, Pa. A Aug. 26, 1914

* Denotes mailing address

† As of 1915

DAVIDSON, HARRY RUSSELL, Operator, U. S. Navy; res., Fifth Ave. A Mar. 10, 1915
and Wheatstear Road, Roselle, N. J.*

DAVIES, J. ERIC, Radio Operator, Marconi International Marine A Aug. 11, 1915
Communication Co., Ltd.; res., 4 Victoria Ave., Penarth, Glamor-
gan-shire, Great Britain, England.*

DAVIS, ARTHUR G., Radio Officer (Ensign), U. S. Navy; res., 1016 15th A Dec. 15, 1915
St., N. W., Washington, D. C.; U. S. S. "Florida," care of Post-
master, New York.*

DAVIS, DARYL D., Electrician, Vacaville Water & Light Co., Vacaville, A July 9, 1915
Cal.; res., 1827 Ward St., Berkeley, Cal.*

DAVIS, F. C., Radio Expert Aid, Navy Yard, Charleston, S. C.; res., 26 A June 3, 1915
George St., Charleston, S. C.*

DAVIS, NORMAN E., Radio Engineer, Marconi Wireless Telegraph A Nov. 17, 1915
Co., Ltd., Marconi Works, Chelmsford, England; res., 8 Hamlet
Road, Chelmsford, Essex, England.*

DAVISON, SIDNEY M., Submarine Signal Engineer, Marconi Wireless A Jan. 5, 1915
Telegraph Co., Ltd., Marconi House, London, England; res., An-
nisquam, Gloucester, Mass.; 4 Midhurst Mansions, Muscull Hill,
London, N., England.*

DEARDORFF, RALPH W., Radio Experimenter; res., 921 W. 18th St., A Oct. 14, 1915
Los Angeles, Cal.*

DE GROOT, H. B., Radio Engineer, National Electric Supply Co., 1330 A Nov. 11, 1915
New York Ave., N. W., Washington, D. C.; res., 1215 E St., N. E.,
Washington, D. C.*

DENT, LARAMIE C., Manager, Marconi Wireless Telegraph Co., Chi- A July 4, 1915
cago, Ill.; 326 River St., Chicago, Ill.*

DESART, ALBERT W., Foreman, Construction and Maintenance, Mar- A Sept. 8, 1915
coni Wireless Telegraph Co., 502 Maritime Bldg.; res., 110 W.
McGraw St., Seattle, Wash.*

DESROSIER, EDGAR JOSEPH, Wireless Operator; res., Wireless A Nov. 17, 1915
Station, Wahiawa, Oahu, T. H.*

DEVENDORF, HAROLD H., Radio Experimenter; res., 645 33rd St., A Sept. 30, 1915
Milwaukee, Wis.*

DEWINTER, SAMUEL, Superintendent, British Columbia Division, Mar- A April 21, 1915
coni Wireless Telegraph Co. of Canada; res., Hotel Angelid, Van-
couver, B. C., Canada; 345 Water St., Vancouver, B. C., Canada.*

DIETRICH, FREDERICK, President, C. Brandes, Inc., 32 Union Square, A July 1, 1915
New York City; res., 1906 Honeywell Ave., New York City.*

DILLON, JOHN E., U. S. Radio Inspector, U. S. Government, Cleveland, A Mar. 10, 1915
O.; res., 1129 Olivewood Ave., Lakewood, O.; 536 Federal Bldg.,
Cleveland, O.*

DOCKRAY, STEPHEN THOMAS, Lieutenant, R. N. V., Royal Naval A Nov. 17, 1915
Air Service; res., 41 Euterly St., Stanwin, Carlisle, England.*

DOLAN, JAMES J., Electrician, in charge of Radio, U. S. Navy; U. S. A Mar. 24, 1915
Coast Guard Cutter "Thetis," Honolulu, H. T.*

DOLPH, STANLEY EDWARD, President and General Manager, Seran- A Oct. 13, 1915
ton Pump Co., 1441 Meylert Ave., Scranton, Pa.; res., 610 Webster
Ave., Scranton, Pa.*

DONLE, HAROLD P., Radio Engineer; res., 9 Phillips St., Providence, A Nov. 4, 1915
R. I.*

DOOLITTLE, FRANKLIN M., Student, Yale College, Engineer, Ameri- A Aug. 7, 1915
can Telephone & Telegraph Co., 15 Dey St., New York City; res.,
171 Bradley St., New Haven, Conn.*

DOWD, JOHN JOSEPH, Chief Electrician (Radio), U. S. S. "Prairie", A Feb. 24, 1915
care of Postmaster, New York; res., 22 W. Narragansett Ave., New-
port, R. I.*

DOWNING, JOHN JAMES, Research Laboratory Assistant, Marconi A Oct. 13, 1915
Wireless Telegraph Co. of America, Roselle Park, N. J.; res., Van
Court Inn, Roselle, N. J.*

DRAKE, ERVIN T., Jr., Student, Harvard College; res., 220 S. Main A Oct. 28, 1915
St., Franklin, N. H.; 3 Hollis Hall, Cambridge, Mass.*

DROSTE, GEORGE L., Building Construction, Thompson-Starrett Co., A April 22, 1915
94 Wall St., New York City; res., 1309 Pugsley Ave., Bronx, New
York City.*

DUBILIER, WILLIAM, Consulting Radio Engineer; res., 539 W. 162nd A July 14, 1915
St., New York City; 160 Duane St., New York City.*

*Denotes mailing address

As of 1915

DUCHARME, FRANCIS L., Assistant Electrical Engineer, Stone & Web- A Nov. 11, 1914
ber Engineering Corporation, 141 Milk St., Room 624, Boston,
Mass.; res., 11 Dalton St., Boston, Mass.*

DUDLEY, DEWITT CLINTON, Radio Operator, Marconi Wireless Tele- A April 15, 1914
graph Co., Philadelphia, Pa.; res., 3916 Market St., Philadelphia,
Pa.*

DUNCAN, HARRIE B., Watch Expert, Waltham Watch Co., Waltham, A June 3, 1914
Mass.; res., 34 Foster St., Newtonville, Mass.*

DUNCAN, R. D., Jr., Laboratory Assistant, U. S. Government; res., A Jan. 22, 1915
35 The Chevy Chase, Washington, D. C.; Bureau of Standards,
Washington, D. C.*

DUNKLEE, FLOYD E., Chief Electrician, Radio, U. S. Navy; res., Cot- A Jan. 20, 1915
tage Grove, Ore.; U. S. Naval Radio Station, Sitka, Alaska.*

DUNN, J. J., Auditor, Tropical Radio Telegraph Co., 80 South St., New A July 24, 1915
York City.*

DUNN, PERLY BARTON, Radio Electrician, U. S. Navy; res., 27 Angell A Dec. 15, 1915
Ave., South Portland, Me.; U. S. S. "New Jersey," care of Post-
master, New York City.*

DUNMORE, FRANCIS W., Student, General Electric Co., West Lynn, A July 4, 1914
Mass.; res., 39 Baker St., Lynn, Mass.*

DUTREHL, L. J. N., Chief Operator, Gulf Division, Marconi Wireless A Aug. 12, 1914
Telegraph Co.; res., 518 Eleonore St., New Orleans, La.*

DUVALL, EDWARD B., Radio Experimenter; res., 1027 Madison Ave., A April 1, 1914
Baltimore, Md.*

EATON, WILLIAM A., Radio Gunner, U. S. Navy, Radio, Va.; res., A Aug. 12, 1914
Radio, Va.; U. S. S. "Washington," care of Postmaster, New York
City.*

EASTMAN, T. CARL, Radio Operator, Marconi Wireless Telegraph Co., A Sept. 9, 1914
Merchants Exchange Bldg., San Francisco, Cal.*

EAVES, AUGUSTUS J., Electrical Engineer, Postal Telegraph Co., 253 A April 1, 1914
Broadway, New York City; res., 506 W. 113th St., New York City.*

EDLWAN, PHILIP E., Technical Adviser and Investigator, Minnesota A Aug. 12, 1914
Wireless Association, City Bldg., Minneapolis, Minn.; res., 1802
Hague Ave., St. Paul, Minn.*

EDMONDS, ALONZO NEWTON, Electrician and Wireless Operator, A Aug. 12, 1914
U. S. Lighthouse Department; res., 332 Duke St., Norfolk, Va.;
U. S. Lighthouse Steamer "Cypress," Charleston, S. C.*

EDWARDS, JOSEPH B., Student in Electrical Engineering, Columbia A Jan. 7, 1914
University; res., 236 Linden Ave., Flatbush, Brooklyn, N. Y.*

EDWARDS, STEVE V., Electrician, First Class, U. S. Navy, Radio, Va.; A April 21, 1915
res., Chocoma, Miss.; U. S. Naval Radio Station, Washington, D. C.*

EGGAR, JOHN G., Assistant Engineer, Universal Radio Syndicate, Ltd., A Nov. 11, 1914
Ballymunion, County Kerry, Ireland; res., Cedar Cottage, Bentley,
Hants, England.*

EHRLI, LEE, Chief Radio Electrician, U. S. Navy, care of Lighthouse A Mar. 31, 1915
Inspector, 6th District, Charleston, S. C.; res., 2626 S. Carlisle St.,
Philadelphia, Pa.*

ELLSCHNEIDER, J. B., Engineer, Marconi Wireless Telegraph Co., A Nov. 4, 1915
Brooklyn, N. Y.; res., 1352 72nd St., Brooklyn, N. Y.*

ELKINS, LINDSEY R., Chief Electrician (Radio), U. S. Navy; res., 1305 A Dec. 30, 1914
Lincoln Ave., Sapulpa, Okla.; U. S. S. "New Jersey," care of Post-
master, New York City.*

ELIHOT, RICHARD M., Jr., Officer of the Line, U. S. Navy, U. S. S. A Dec. 16, 1914
"McDougal", care of Postmaster, New York City.*

EMANUEL, SOL, Wireless Operator, Pacific Alaska Navigation Co., A Sept. 8, 1915
Seattle, Wash.; res., 938 21st Ave., N., Seattle, Wash.*

EMERY, R. C., Treasurer, Emery Steamship Co., 114 State St., Boston, A Sept. 30, 1914
Mass.; res., Newton, Mass.*

EMMERSON, FRANK, Student, Portsmouth High School; res., 119 A May 22, 1914
High St., Portsmouth, Va.*

ENGLAND, GEO. B., Engineer, Department of Education, City of New A Sept. 3, 1915
York; res., 917 St. Nicholas Ave., New York City.*

ENGST, NORBERT K., Treasurer's Assistant, Roeder & Kuebler Co., A April 2, 1915
Newark, N. J.; res., 128 Monmouth St., Newark, N. J.*

EPICSON, ARTHUR E., Radio Operator, Marconi Wireless Telegraph A Sept. 30, 1914
Co., New York City; res., Summer St., Manchester, Mass.; care
of Eason Experimental Station, Manchester, Mass.*

Denotes mailing address

ESCRICH, JAMES P., Constructor of Wireless Instruments; res., 234 Warren St., Jersey City, N. J.* A Sept. 9, 1914

ESTEY, F. CLIFFORD, Electrician, Locke Regulator Co., North St., Salem, Mass.; res., 22 Oakland St., Salem, Mass.* A April 15, 1914

EVANS, JAMES, Chief Radio Electrician, U. S. Navy; U. S. S. "Wadsworth," care of Postmaster, New York City.* A Feb. 18, 1914

EVANS, JAMES ARTHUR, Engineering Student; care of University of Virginia University, Va.* A Aug. 12, 1914

EVANS, LOUIS M., Electrical Engineer, Signal Corps, U. S. Army, 1710 Pennsylvania Ave., N. W., Washington, D. C.*; res., 405 N. Alfred St., Alexandria, Va.* A April 1, 1914

EVEREST, AUGUSTINE R., Consulting Design Engineer, British Thomson Houston Co., Ltd.; res., 46 Clifton Road, Rugby, England; British Thomson Houston Co., Ltd., Rugby, England.* A Sept. 22, 1915

EVERETT, L. C., Engineer, Marconi Wireless Telegraph Co., 233 Broadway, New York City.*; res., 107 Court St., Newark, N. J.* A Sept. 3, 1914

FABBRI, ALESSANDRO, Experimenter; res., Metropolitan Club, 1 E. 60th St., New York City.* A Oct. 13, 1915

FACEY, JOHN W., Electrician, Richard Pfund, 54 Stone St., New York City.* A Sept. 3, 1914

FALLON, JAMES R., Chief Radio Operator, U. S. Navy; res., 107 Hammond St., Boston, Mass.; Box 192, Sayville, L. I., N. Y.* A Jan. 20, 1915

FARRAND, C. L., Engineer, Marconi Wireless Telegraph Co.; res., Van Court Inn, Roselle, N. J.* A Jan. 7, 1914

FAY, FRANK, Assistant Supervisor, Plant Layout, American Telegraph & Telephone Co., 24 Walker St., New York City; res., 151 Jordan-emon St., Brooklyn, N. Y.* Charter Member W. I.

FELLOWES, HERBERT SYDNEY, Assistant Engineer, Marconi Wireless Telegraph Co.; res., 86 Beaufort Road, West Southbourne, Bournemouth; Marconi Station, Clifden, County Galway, Ireland.* A Nov. 17, 1915

FENDRICH, WM., Jr., Assistant Inspector, U. S. Navy; res., 616 W. 184th St., New York City.* A April 22, 1914

FERRIS, MALCOLM, Instructor, Philadelphia School of Wireless Telegraphy, Parkway Bldg., Philadelphia, Pa.; res., 3409 Baring St., Philadelphia, Pa.* A May 22, 1915

FERRIS, WILLARD J., Jr., Radio Operator, Marconi Wireless Telegraph Co., John Wanamaker Bldg., Philadelphia, Pa.; res., 3443 N. 15th St., Philadelphia, Pa.* A Oct. 13, 1915

FESSENDEN, EDGAR H., Electrician, Broadway-Park Place Co.; res., 132 Norwood Ave., Brooklyn, N. Y.* A July 8, 1914

FIELD, W. THAYER, Student, Princeton College, Princeton, N. J.; res., 976 Broad St., Newark, N. J.; Charter Club, Princeton, N. J.* A Dec. 15, 1915

FITE, T. A., Manager, Berkeley Radio Laboratory, Berkeley, Cal.; res., Berkeley, Cal.* A April 22, 1914

FLEISS, ROBERT ANTON, Master Signal Electrician, Company A, First Aero Squadron; res., 99 Claremont Ave., New York City.* A April 1, 1914

FLEMING, JAMES J., Assistant to Proprietor, The New Thomson Hotel; res., The New Thomson Hotel, Kane, Pa.* A Dec. 15, 1915

FLITCH, JOHN C., Master Signal Electrician, U. S. Army, Signal Corps; Fort Leavenworth, Kan.* A Dec. 15, 1915

FLOTTMAN, JOHN M., Wireless Operator, Marconi Wireless Telegraph Co., San Francisco, Cal.; res., Washington, Mo.; P. O. Box 80, San Francisco, Cal.* A Aug. 26, 1914

FOLEY, J. W. BEASLEY, Assistant Manager, Marconi Wireless Telegraph Co., Port Arthur, Tex.; res., 130 Lakeshore Drive, Port Arthur, Tex.* A Jan. 27, 1915

FOLEY, LEWIS B., Superintendent Telegraph, Telephone and Wireless, Delaware, Lackawanna Railroad Co., 90 West St., New York City; res., Denville, N. J.* A April 1, 1914

FORBES, ALLAN CHARLES, Dynamo Tender, Marconi Wireless Telegraph Co. of America, Bolinas, Marin County, Cal.*; res., Marconi Hotel, Bolinas, Cal.* A July 7, 1915

FORD, WALTER B., Electrician, Southern Electric Co., San Diego, Cal.; res., 3053 Arnold Ave., San Diego, Cal.* A July 1, 1914

FOWLER, H. A., Editor, "The Miscellany," 17, Board of Trade, Kansas City, Mo.*; res., 3 E. Armour Blvd., Kansas City, Mo.* A April 22, 1914

*Denotes mailing address

FRAZER, MARC, Manager Roofing Department, Tyle Corrugated Culvert Co.; res., 2616 Emerson Ave., S., Minneapolis, Minn.* A May 12, 1915

FREDRICKS, JOHN ERICK, Chief Electrician, U. S. Navy, U. S. S. "San Diego," care of Postmaster, San Francisco, Cal.*; res., Brush Prairie, Clarke County, Wash.* A May 26, 1915

FREEMAN, WALTER CLARKSON, Telephone Engineer, Stromberg Carlson Telegraph Manufacturing Co., Rochester, N. Y.; res., 121 Corwin Road, Browncroft, Rochester, N. Y.* A April 1, 1914

FRIED, JOS. A., Switchboard Designer, Sprague Electric Works, New York City; res., 525 First Ave., Astoria, L. I., N. Y.* A April 12, 1913

FROST, HERBERT H., Radio Engineer and Buyer of Wireless Goods, Sears-Roebuck & Co., Chicago, Ill.; res., 304 Forest Ave., Oak Park, Ill.; Department 57, Sears-Roebuck & Co., Chicago, Ill.* A Jan. 5, 1916

FULLER, ERLE H., First Class Sergeant, Company E, Signal Corps, U. S. Army, Honolulu, Hawaii.* A Aug. 12, 1914

FURLONG, LIEUT. W. R., Lieutenant, U. S. Navy; U. S. S. "Wyoming," care of Postmaster, New York City.* A Oct. 28, 1914

GAGE, EDWARD G., Partner, Chandler & Gage, 99 West St., New York City.* Charter Member W. I.

GARDNER, PAUL LOGAN, Electrical Draftsman, Puget Sound Navy Yard; res., Bremerton, Wash.; Navy Yard, Bremerton, Wash.* A Nov. 17, 1915

GASKEY, SIGMUND, Radio Operator, Marconi Wireless Telegraph Co., Merchants Exchange Bldg., San Francisco, Cal.*; res., 73 W. 30th St., Bayonne, N. J.* A Sept. 9, 1914

GAULT, GEORGE H., Operator, Marconi, S. S. "John A. Hooper"; res., care of Marconi, 416 Merchants Exchange Bldg., San Francisco, Cal.; care of Marconi, Wanamaker Bldg., Philadelphia, Pa.* A Oct. 13, 1915

GAWLER, H. C., Radio Inspector, Department of Commerce, U. S. Government, Boston, Mass.; res., 53 Heath St., Somerville, Mass.; care of Custom House Barge Office, Boston, Mass.* A Nov. 4, 1912

GERHARD, A. E., Wireless Operator, Marconi Wireless Telegraph Co., Marshall, Cal.; care of Marconi Wireless Telegraph Co., Marshall, Cal.* A Feb. 10, 1915

GIEFFIN, SIDNEY H., Marconi Wireless Telegraph Co.; res., Tudor Hall Apartments, University Parkway, Baltimore, Md.; Marconi Wireless Telegraph Co., 601 American Bldg., Baltimore, Md.* A April 15, 1914

GIVNAN, PATRICK J., Superintendent, Kilbourne & Clark Manufacturing Co., Seattle, Wash.; res., 716 16th Ave., Seattle, Wash.; 71 Columbia St., Seattle, Wash.* A Mar. 24, 1915

GLASENER, VANCE C., Chief Electrician, (Radio) U. S. Navy; U. S. S. "Nebraska," care of Postmaster, New York City.* A Mar. 10, 1915

GODLEY, PAUL F., Radio Inspector, Brazilian Government; res., Leonia, N. J.* A May 6, 1914

GOEGL, ADELBERT, Designer, Gogel Manufacturing Co.; res., 628 S. Erie St., Toledo, O.* A May 22, 1914

GOLDSBROUGH, BRICE HERBERT, Chief Radio Electrician, U. S. Navy, U. S. S. "Eleanore"; res., 3750 Harvard Blvd., Los Angeles, Cal.; U. S. S. "Eleanore," care of U. S. Postal Agency, Shanghai, China.* A Mar. 31, 1915

GOLDSTEIN, DAVID S., Chief Electrician, (Radio) U. S. Navy; res., 9 Asylum St., Boston, Mass.; U. S. Naval Radio Station, Tatoosh, Wash.* A Feb. 10, 1915

GOODMAN, HAROLD THORPE, Electrician, Third Class, (Radio) U. S. Navy; res., 257 Peoples St., Atlanta, Ga.; U. S. S. "New Hampshire," care of Postmaster, New York City.* A Nov. 17, 1915

GOODWIN, AUBREY R., Radio Engineer, Wm. J. Murdock Co., Chelsea, Mass.; res., 70 Huntington Ave., Boston, Mass.* A Oct. 14, 1914

GOODWIN, W. NELSON, Jr., Chief Electrical Engineer, Weston Electrical Instrument Co., Newark, N. J.; res., 30 Scheerer Ave., Newark, N. J.* A Nov. 17, 1915

GORDON, McCHEYNE, Professor of Physics, Lafayette College, Easton, Pa.; res., Lafayette College, Easton, Pa.* A Jan. 5, 1916

GOVERN, HARRY E., Assistant Sales Manager, H. Lee Mallory Co., 445 Fifth Ave., New York City; res., 251a Grand Ave., Brooklyn, N. Y.* A Aug. 12, 1914

GOWAN, JOSEPH HENRY, Electrician, (Radio) First Class, U. S. Navy; res., Harrison, Ark.; U. S. S. "Albany," Bremerton, Wash.* A Dec. 15, 1915

*Denotes mailing address

†As of 1915

GRAF, EDWARD, Radio Operator, Marconi Wireless Telegraph Co.; A July 1, 1914
res., 165 Sheridan Road, Paterson, N. J.*

GRAHAM, WARREN C., Chief Instructor, School of Radio Telegraphy, A Nov. 17, 1915
Y. M. C. A., New Orleans, La.; res., 5317 Magazine St., New Orleans, La.*

GRAHAM, WILLIAM A., Chief Electrician, U. S. Navy; res., 218 A Jan. 27, 1915
Ainsworth St., Norfolk, Va.; U. S. Naval Radio Station, Sayville, L. I., N. Y.*

GRAVELEY, EUGENE C., General Contractor; res., Hemingway, S. C.; A July 1, 1914
Florence, S. C.*

GRIFFIN, WILL CARLETON, Wireless Operator, Alaska Steamship A Sept. 22, 1915
Co., S. S. "Northwestern"; res., care Tregoning Boat Co., Seattle, Wash.*

GRIFFING, HARVEY VICTOR, Radio Operator, Marconi Wireless A Dec. 15, 1915
Telegraph Co., Port Arthur, Tex.*; res., Eastport, L. I., N. Y.*

GRIMMON, PETER E. G., Electrical Engineer, Representative of de Forest A Dec. 30, 1915
Radio Telegraph & Telephone Co., for Argentine and Brazil, Calle Republicanas 3576, Buenos Aires, S. A.; Kerkstraat 311, Amsterdam, Holland.*

GRINNELL, MILTON WILDER, Radio Operator, Marconi Wireless A June 3, 1914
Telegraph Co., Boston, Mass.; res., 29 Upham St., Salem, Mass.*

GRUNERT, ERICH, Assistant Manager, Tuckerton Radio Station, A Jan. 13, 1915
Tuckerton, N. J.*; res., Tuckerton, N. J.*

GUTHRIE, CHARLES D., Electrician, Bristol Myers Co., 281 Greene A April 21, 1915
Ave., Brooklyn, N. Y.; res., 268 Sterling St., Flatbush, Brooklyn, N. Y.*

HAFNER, ANDREW J., Radio Experimenter, New York City; res., A Oct. 15, 1915
650 E. 2nd St., Brooklyn, N. Y.*

HAGENLOCHER, ERNEST, Electrical Engineering Department, J. G. A Oct. 13, 1915
White Engineering Corporation, 43 Exchange Place, New York City; res., 301 Vanderbilt Ave., Brooklyn, N. Y.*

HAINE, CHAS. A., Radio Operator, Tropical Radio Telegraph Co., A July 24, 1915
New York City; res., 362 15th St., Brooklyn, N. Y.*

HAINES, HOWARD J., Law Student, Merchants Claim Association, A July 1, 1915
Suites 1110-1111, 27 William St., New York City; res., 115 W. 22nd St., New York City.*

HAINES, KENNETH B., Ed. Department, Westinghouse Electric & A Aug. 26, 1915
Manufacturing Co., East Pittsburgh, Pa.; res., Room 8, 500 Todd St., Wilkesburg, Pa.*

HALE, W. H., Lieut., P. C., Manila, P. I.* A Nov. 1, 1914

HALEY, JAMES A., Superintendent, Geo. A. Fuller Co., 100 Magazine A Aug. 12, 1915
St., Roxbury, Mass.; res., 7 Saratoga St., Dorchester, Mass.*

HALL, RALPH O., Erecting Engineer, Kilbourne & Clark Manufacturing A Mar. 24, 1915
Co., Seattle, Wash.*; res., 1715 17th Ave., Seattle, Wash.*

HAMMILL, J. E., Radio Operator, Alaska Steamship Co., Pier 2, A Sept. 8, 1915
Seattle, Wash.*; res., Seattle, Wash.*

HANTZSCH, RALPH E., Radio Experimenter; res., 1161 Island Ave., A July 1, 1915
Milwaukee, Wis.*

HARDING, HAROLD M., Electrical Machinist, U. S. Navy, Navy Yard, A Mar. 24, 1915
Marine Island, Cal.; res., 1522 Bonita Ave., Berkeley, Cal.*

HARDY, WILBUR HOPKINS, Radio Experimenter; res., 778 Hale St., A June 3, 1915
Beverly Farms, Mass.*

HARGETT, GEO. C., Photographer; res., 12340 Castlewood Ave., Cleve- A Aug. 12, 1915
land, O.*

HARP, FRANKLIN H., Building Wireless Apparatus, Kilbourne & Clark A Dec. 15, 1915
Manufacturing Co., Seattle, Wash.; res., 917 1/2 Spruce St., Seattle, Wash.*

HART, FRANCIS A., Chief Inspector, Marconi Wireless Telegraph Co., A Charter Mem-
ber, 233 Broadway, New York City; res., 1289 Dean St., Brooklyn, N. Y.*

HART, M. EMANUEL, Secretary and Manager, Enterprise Electrical A May 6, 1915
Co., New Orleans, La.; res., 407-21 Baronne St., New Orleans, La.*

HART, WILLIAM T., Electrician (Radio), U. S. Navy; U. S. S. "E-1," A Mar. 10, 1915
care of Postmaster, New York City.*

HATFIELD, ROBERT L., Signal Corps, N. G. N. J., Jersey City, N. J.; A Charter Mem-
ber, res., 207 Market St., Newark, N. J.*

*Denotes mailing address

HATTON, HAROLD, Radio Operator, Marconi Wireless Telegraph Co., A Oct. 13, 1915
Merchants Exchange Bldg., San Francisco; res., Hotel Terminal, San Francisco, Cal.

HAUGHTON, E. J., District Superintendent, Canadian Government A Jan. 7, 1914
Radiotelegraph, 1230 Government St., Victoria, B. C., Canada.*; res., 1932 Cowan St., Victoria, B. C., Canada.

HAW, ARTHUR E., Radio Engineer, Wireless Instrument Co.; res., A Jan. 5, 1916
2425 1st Ave., S., Seattle, Wash.*

HAWKINS, LES S., Engineer, Marconi Wireless Telegraph Co. of Can- A May 26, 1915
ada, Ltd., Toronto, Canada; res., 17 Gormley Ave., Toronto, Canada.*

HAYDEN, THOMAS J., Instructor, Practical and Applied Electricity, A July 1, 1914
Department of Education, New York City; res., 222 S. 10th Ave., Mount Vernon, N. Y.*

HAYES, GEORGE W., Superintendent of Factory, Marconi Wireless A Nov. 5, 1915
Telegraph Co., Aldene, N. J.; res., 321 Second Ave., Roselle, N. J.*

HAYES, H. D., Director of the School of Radio Telegraphy, Y. M. C. A., A Aug. 12, 1914
Los Angeles, Cal.*; res., 1124 W. 7th St., Los Angeles, Cal.*

HEBERT, ARTHUR A., Representative, Midvale Steel Co., New York A Charter Mem-
City; res., 216 Highland Lane, Nutley, N. J.* ber.

HEFFERMAN, WILLIAM J., Clerk, Chas. Williams Stores; res., 46 A June 3, 1914
Strand Place, Brooklyn, N. Y.*

HEILIG, D. J., Port Manager, Marconi Wireless Telegraph Co., 1002 A Oct. 15, 1915
Parkway Bldg., Philadelphia, Pa.*; res., 1121 Arch St., Philadelphia, Pa.*

HEIKEN, EMIL W., Radio Operator, Panama Railroad Steamship Line; A Dec. 15, 1915
res., 2103 Vyze Ave., Bronx, New York City; S. S. "Achilles," care of John Bros., Norfolk, Va.*

HENDERSON, GEO. E., Radio Operator, in charge, Tropical Radio A July 16, 1915
Telegraph Co., 80 South St., New York City; Puttwood Radio Station, Puttwood, La.*

HENDERSON, JOHN C., Student, Rensselaer Polytechnic Institute, A May 6, 1914
Troy, N. Y.; res., 1639 Central Ave., Indianapolis, Ind.*

HILBURN, A. J., Lieutenant Commander, U. S. Navy; res., 1820 A Oct. 15, 1915
Wyoming Ave., Washington, D. C.; U. S. S. "South Carolina," care of Postmaster, New York City.*

HURTY, HAROLD BURTON, Radio Operator, Tropical Radio Tele- A July 7, 1915
graph Co.; res., 6327 Toulouse St., New Orleans, La.; 321 St. Charles St., care of Tropical Radio Telegraph Co., New Orleans, La.*

HUCKEY, ANDREW S., Lieut., Electrical Engineer, Officer, Navy A Jan. 21, 1914
Yard, Philadelphia, Pa.; care of Navy Department, Washington, D. C.*

HIGGS, HARRY Y., Instructor in Radio Telegraphy, Brooklyn Tele- A Oct. 14, 1914
graph School, Brooklyn, N. Y.; res., 30 Irving Place, Brooklyn, N. Y.*

HILL, LAURENCE D., Engineer, Bathurst, Cambia, British West A Sept. 30, 1914
Africa.*

HILSON, EDWARD, Radio Operator, American Hawaiian Steamship A Aug. 26, 1914
Co., New York City; res., 406 S. Broadway, Los Angeles, Cal.; care of American Hawaiian Steamship Co., 8 Bridge St., New York City.*

HILL, PARKER, Captain, 19th Infantry, U. S. Army; School of Mus- A April 8, 1914
etry, Fort Sill, Okla.*

HODGES, SANDEL ASHBY, Wireless Operator, Marconi Wireless Tele- A Dec. 15, 1915
graph Co., Marshalls, Cal.*; res., Marconi Hotel, Marshalls, Cal.*

HOFMAN, JOSEPH M., Engineer; res., 120 E. 92nd St., New York A Charter Mem-
City; 317 E. 91st St., New York City.* ber W.I.

HOFMEYER, P., Chief Radio Electrician, U. S. Navy, U. S. S. "Dol- A Sept. 3, 1915
phin"; care of Postmaster, New York City, U. S. S. "Dolphin."*

HOGG, WILLIAM STETSON, Jr., Radio Officer, U. S. Navy, Pacific A June 17, 1914
Torpedo Flotilla; U. S. S. "Iris," Pacific Station, via San Francisco, Cal.*

HOLME, PAUL EUGENE, Gas Fitter, Portland Gas & Cable Co., A Nov. 17, 1915
Portland, Ore.; res., 422 Blackstone St.*

HOLL, CLARENCE GILLILAND, Student, Massachusetts Institute A Dec. 15, 1915
of Technology; res., 26 Trenton St., Melrose, Mass.*

*Denotes mailing address 1As of 1915

HOLZL, ALFRED F., Radio Electrician, U. S. Navy; res., Fire Island, New York; U. S. Naval Radio Station, Fire Island, N. Y.* A July 7, 1915

HOMES, WILLIAM, Photographer; res., Chocoma, N. H.* A Nov. 17, 1914

HOPPOCK, ALLEN H., Student, New York University; res., 215 Clark St., Westfield, N. J.* A April 22, 1915

HORLE, LAWRENCE C. F., Instructor in Physics, Stevens Institute of Technology, Hoboken, N. J.*; res., 112 Fairmount Ave., Newark, N. J. A Feb. 18, 1915

HORN, CHARLES W., Radio Operator, Tropical Radio Telegraph Co., 17 Battery Place, New York City; res., Sagamore Hotel, Far Rockaway, L. I., N. Y.* A June 3, 1915

HOSETH, FRANK B., Wireless Operator, Alaska Steamship Co., Pier 2, Seattle, Wash.; res., 818 First Ave., Seattle, Wash.* A Sept. 8, 1914

HOWARD, WILLIAM H., Laboratory Assistant, Marconi Wireless Telegraph Co.; res., 1192 Broad St., Newark, N. J.* A Aug. 12, 1914

HOWELL, W. J., Radio Instructor, New York Protector, Westchester; res., 135 Edgecombe Ave., New York City.* A July 1, 1915

HOXIE, CHARLES A., Assistant Electrical Engineer, General Electric Co., Schenectady, N. Y.; res., 41 Elm St., Schenectady, N. Y.* A Mar. 31, 1915

HUBLEY, W. F., *Transfer of the Institute*, President and General Manager, American Transformer Co., Newark, N. J.; res., 77 Carleton St., East Orange, N. J.; 115 Miller St., Newark, N. J.* A Nov. 4, 1914

HUDSON, JOEL E., Engineer in charge, Marconi Wireless Telegraph Co., Marion, Mass.* A June 3, 1915

HUNTER, HERBERT A., Radio Electrician, U. S. Naval Radio Station, Radio, Va.*; res., 90 Terrace Ave., Winthrop Beach, Mass. A Sept. 9, 1915

HUNTER, THOMAS M., Assistant Engineer, American Transformer Co., 145 Miller St., Newark, N. J.*; res., 22 Pennsylvania Ave., Newark, N. J. A Oct. 13, 1914

HURLEY, EDWARD P., Salesman, Thorne Neale & Co., 601 Stephen Girard Bldg., Philadelphia, Pa.; res., 132 N. Robinson St., Philadelphia, Pa.* A Nov. 17, 1914

IDDINGS, F. T., Chief Cable Testman, Chesapeake & Potomac Co., Baltimore, Md.; res., 1608 Linden Ave., Baltimore, Md.* A Jan. 21, 1915

INTO, EDWIN GROVER, Radio Operator, Tropical Radio Telegraph Co., 17 Battery Place, New York City*; res., Bristol, R. I. A April 14, 1915

INWRIGHT, JOHN A., Student, New York University; res., 400a Fairmount Ave., Jersey City, N. J.* A April 15, 1915

ISLER, SAMUEL, Laboratory Assistant, U. S. Government; res., 1829 Ontario Place, N. W., Washington, D. C.; Bureau of Standards, Washington, D. C.* A April 2, 1915

ISRAEL, LESTER L., Radio Engineer, U. S. Navy, Machinery Division, Brooklyn, N. Y.; res., 106 W. 69th St., New York City.* A Dec. 1, 1914

JACKSON, CHESTER M., Radio Operator, Marconi Wireless Telegraph Co., San Francisco, Cal.; res., 4025 Brookdale Ave., Oakland, Cal.* A April 21, 1915

JARVIS, B. LEWIS, Chief Radio Electrician, U. S. Navy; U. S. Naval Electrical Class, Navy Yard, Brooklyn, N. Y.* A Mar. 10, 1915

JOHNSON, ALBERT H., Superintendent of Shop, National Electrical Supply Co., Washington, D. C.; res., 431 Cedar St., Takoma Park, D. C.; National Electrical Supply Co., 1330 New York Ave., N. W., Washington, D. C.* A Feb. 18, 1915

JOHNSON, HARRY L., Radio Operator, U. S. Navy; res., Sedley, Va.; U. S. S. "Paulling," care of Postmaster, New York City.* A Jan. 7, 1915

JOHNSON, THEOPHILUS, Jr., Student, Columbia University, New York City; res., 17 3rd St., Woodside, L. I., N. Y.* A May 6, 1914

JOHNSTON, STANLEY, Radio Operator, Olson & Mahoney Steamship Co.; res., 753 Bush St., San Francisco, Cal.* A April 21, 1915

JOINER, JAMES ROWLAND, Radio Operator, Marconi Wireless Telegraph Co., Elm and Duane Sts., New York City*; res., Moravia, N. Y. A Dec. 15, 1915

JONES, CLARENCE E., Agent, The Texas Co.; res., Live Oak, Fla.* A April 21, 1915

JONES, MYRON ALPERT, Radio Electrician, U. S. Navy, Puget Sound, Wash.; res., 4090 U St., San Diego, Cal.; Box 646, Bremerton, Wash.* A Oct. 13, 1915

JULIEN, IRA F., Manager, Semi-High Power Station, Box 43, Astoria, Ore.* A Sept. 8, 1915

*Denotes mailing address

KAISER, JACOB, Jr., Manager, Hotel; res., 97 Borden Ave., Long Island City.* A Feb. 10, 1915

KAHANT, CHAS. G., Radio Engineer, Atlantic Communication Co., 47 West St., New York City*; res., Hillsdale, N. J. A Mar. 12, 1915

KASNER, HENRY P., Shift Engineer, Marconi Wireless Telegraph Co., Kahu, Oahu, T. H.*; res., 1215 Madison Ave., New York City. A Jan. 5, 1914

KLEFFER, HAL V., Electrician in charge, U. S. Navy; res., 4193 17th St., San Francisco, Cal.; U. S. Naval Training Station, San Francisco, Cal.* A Mar. 10, 1915

KLEP, H. SANFORD, Ensign, U. S. Navy; U. S. S. "Georgia," care of Postmaster, New York City.* A June 3, 1914

KELLOW, JAMES CAMPBELL, Wireless Operator, C. T. U. A., 71 Broadway, New York City; res., 114 Liberty Ave., Jamaica, L. I., N. Y.* A Oct. 13, 1915

KELLY, WILLARD S., Master Signal Electrician, U. S. Army; res., 613 Rock Creek Road, Washington, D. C.; U. S. Signal Corps, 1710 Pennsylvania Ave., N. W., Washington, D. C.* A April 8, 1914

KELLY, C. MERRILL, Jr., Development Engineer, Western Electric Co., Chicago, Ill.; res., 115 N. Roman Ave., Chicago, Ill.* A Nov. 4, 1912

KELLY, GEORGE W., Jr., Operator, Marconi Wireless Telegraph Co.; res., 1738 N. 10th St., Philadelphia, Pa.* A April 15, 1914

KENNY, MATTHEW, Chief Electrician, U. S. Navy; res., 37 10th St., Brooklyn, N. Y.; Naval Radio Station League, Navy Yard, Philadelphia, Pa.* A April 21, 1915

KENT, ROSCOE, Superintendent of Railroad Operation, Tropical Timber Co., Nueva Armenia, Spa., Honduras; res., 222 Washington St., Newark, N. J.* A Jan. 7, 1914

KERANE, PATRICK J., Radio Operator, Marconi Wireless Telegraph Co., Ltd.; res., Lisoway, Castlereagh County, Roscommon, Ireland; U. S. S. "El Toro," care of General Post Office, London, England.* A Dec. 15, 1915

KETCHAM, J. M., Sales Agent and Engineer; 155 Park Ave., East Orange, N. J.* A Feb. 4, 1914

KING, FRANK, Student, Columbia University; res., 326 W. 107th St., New York City.* A May 12, 1915

KING, THOMAS L., Chief of Radio Platoon, U. S. Army Signal Corps; U. S. Army Signal Corps, Company D, Texas City, Tex.* A Mar. 24, 1915

KINGSBURY, KENNETH, res., 21 Chestnut St., Binghamton, N. Y.* A April 15, 1914

KINNEY, ELY M., Railway Commercial Department, General Electric Co., Schenectady, N. Y.; res., 212 Parkwood Blvd., Schenectady, N. Y.* A Feb. 24, 1915

KIRSNER, SERGEANT HARRY, Electrician (Master), U. S. Army; Quartermaster Corps, Manila, P. I.* A July 1, 1914

KITCHIN, HOWARD W., Chief Radio Electrician, U. S. Navy Laboratory, Bureau of Standards, Washington, D. C.* A Aug. 12, 1914

KLAUS, WILLIAM, Radio Electrician, U. S. Naval Radio Station, Radio, Va.* A Oct. 15, 1914

KNIGHT, HERVEY S., Patent Expert; res., 6930 Piney Branch Road, Takoma Park, D. C.; 700 10th St., N. W., Washington, D. C.* A Jan. 13, 1915

KNIGHT, MAURICE E., Machinist, American Voting Machine Co.; res., 3 Edwin St., Dorchester, Mass.* A July 8, 1914

KNOEL, LLOYD M., Instructor in Physics, Central High School, Philadelphia, Pa.; res., 3260 Chestnut St., Philadelphia, Pa.* A Oct. 15, 1913

KNOTTS, HARRY J., Experimenter, Publisher "State Center-Record," Elhopolis, Ill.* A May 6, 1914

KNOWLES, EDWARD P., Jr., Train Director, Pennsylvania Railroad, Trenton, N. J.; res., 416 Princeton Ave., Trenton, N. J.* A Aug. 12, 1914

KOLB, JAMES C., Licensed Electric Elevator Operator; res., 671 E. 12nd St., Los Angeles, Cal.* A Nov. 4, 1912

KOHLER, HARRY E., Operator, Marconi Wireless Telegraph Co.; res., Perkasio, Pa.* A July 1, 1914

KOSTER, RICHARD WESLEY, Chief Electrician (Radio), U. S. Navy; res., 811 Kenmore Place, Brooklyn, N. Y.* A Nov. 17, 1915

KRIST, SIMON E., Engineer, First Class, Marconi Wireless Telegraph Co., Ltd., Marconi House, Strand, London, England*; res., 182 Victoria Road, Alexandra Park, London, N., England. A Mar. 10, 1915

*Denotes mailing address

1As of 1915

KRAFT, VINCENT L., Radio Experimenter; res., 4715 11th Ave., N. E.; A May 12, 1915
Seattle, Wash.*

KRENKE, ALBERT F., Manager and Radio Operator, Federal Telegraph Co.; U. S. Grant Hotel, San Diego, Cal.; res., 1450 Arch St., San Diego, Cal.*

KUHN, ALFRED S., General Manager and Engineer, Fritz Lowenstein, 397 Bridge St., Brooklyn, N. Y.*; res., 229 W. 105th St., New York City.

KUJIRAI, T., Professor of Electrical Engineering, Tokyo Imperial University, Tokyo, Japan*; res., Tokyo, Japan.

KUMELIKE, LORENZ LEI, Draughtsman, Federal Telegraph Co., Palo Alto, Cal.*; res., 611 Bryant, Palo Alto, Cal.

LAAGER, CRESTON F. H., Draughtsman, Standard Roller Bearing Co.; res., 1029 Belmont Ave., West Philadelphia, Pa.*

LA CHAPELLE, JACQUES DE; res., Highwood, N. J.* A April 15, 1915

LACHMAN, THEO., Operator and Radio Electrician, U. S. Naval Station, Warrington, Fla.* A Aug 12, 1915

LAIRD, KENNETH V., High Tension Research; res., 105 Parkside Drive, Berkeley, Cal.* A Oct 28, 1915

LAMB, EDWIN S., Instructor, Kenosha Wireless School, Kenosha, Wis.; res., 119 Milwaukee Ave., Kenosha, Wis.* A April 22, 1915

LAMSON, HORATIO W., Assistant Instructor, Massachusetts Institute of Technology, Boston, Mass.*; res., Arlington Heights, Mass.; 85 St. Botolph St., Boston, Mass.* A Dec 15, 1915

LANE, BURTON J., Radio Operator, U. S. Navy; res., 321 27th Ave., Seattle, Wash.; U. S. Naval Radio Station, Tatoosh Island, Wash.* A Nov 17, 1915

LANE, DAVID M., Electrical Engineering Student, Cooper Union; res., 343 9th St., Jersey City, N. J.* A May 6, 1915

LANG, HARRY J., Radio Inspector, Radio Laboratory, U. S. Navy, Navy Yard, Brooklyn, N. Y.*; res., 112 E. 27th St., New York City.

LANGE, EDWARD CARL, Chief Draftsman, Killbourn & Clark Manufacturing Co.; res., 311 29th Ave., N., Seattle, Wash.* A Sept 22, 1915

LANGLEY, R. H., Engineer in charge at New York, Wireless Specialty Apparatus Co., Chief Engineer, Wireless Improvement Co., New York City; res., 220 Audubon Ave., New York City.* A June 3, 1915

LANGMUIR, IRVING, Research Engineer, Research Laboratory, General Electric Co., Schenectady, N. Y.*; res., 16 Rugby Road, Schenectady, N. Y. A Feb 18, 1915

LANGRIDGE, ARCH, Engineer, Marconi Wireless Telegraph Co., Ltd., Marconi Works, Chelmsford, England; res., Crickett Hill, Sand, Woking, Surrey, England.* A Dec 15, 1915

LaPLANT, G. L., Druggist and Manager Electric Light and Power; res., St. Anthony, Iowa.* A Dec 15, 1915

LARSON, LOUIS J., Radio Telegrapher, Federal Telegraph Co., San Francisco, Cal.; res., Hotel Thomas, San Francisco, Cal.; 811 Hobart Bldg., San Francisco, Cal.* A Oct 13, 1915

LARZILERE, WILLIAM R., Jr., Electrical Engineer, 512 Merchants National Bank Bldg.; res., 465 Page St., San Francisco, Cal.* A July 7, 1915

LEASON, ROGER WOLCOTT, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.*; res., 22 Childs St., Hyde Park, Mass. A Dec 15, 1915

LEE, EDWARD H., Radio Electrician and Operator, U. S. Army; res., 328 Jackson St., Lawrence, Mass.; Radio Station, Grande Island, Zambales, P. I.* A Jan 5, 1915

LEE, SAMUEL E., Chief Radio Electrician, U. S. Navy, U. S. S. "Wyoming"; res., 527 Simonton St., Key West, Fla.; care of Postmaster, New York City, U. S. S. "Wyoming."* A Aug 26, 1915

LEHDE, PENDELTON E., Wireless Testing Engineer, Vaccaro Bros. Steamship and Railroad Co., New Orleans, La.; res., 2223 Magazine St., New Orleans, La.* A Oct 11, 1915

LEISTER, FAYETTE, Draughtsman, Standard Roller Bearing Co., Philadelphia, Pa.; res., 331 N. Felton St., West Philadelphia, Pa.* A April 15, 1915

LEITENBERGER, L. J., Radio Operator, Tropical Radio Telegraph Co.; res., 902 W. Arizona St., Philadelphia, Pa.* A Oct 15, 1915

LEMIEUX, EUGENE O., Radio Operator; res., Kingston, Ont., Canada; Government Radio Station, Kingston, Ont., Canada.* A Sept 8, 1915

*Denotes mailing address

1As of 1915

LEWIS, WALTER S., Student, Columbia University; res., 319 W. 91st St., New York City.* A Jan 21, 1914

LEWIS, LEE, Superintendent Trans-Oceanic Division, Marconi Wireless Telegraph Co., 233 Broadway, New York City*; res., 80 Prospect St., East Orange, N. J. A Sept 9, 1914

LE QUESNE, CHARLES A., Jr., Engineer, Department Buildings and Telegraphs, New York Telephone Co., New York City; res., 251 90th St., Brooklyn, N. Y.* A June 3, 1912

LEVINE, DAVID, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.*; res., 41 S. Bond St., Baltimore, Md. A Nov 17, 1915

LEVINSON, NATHAN, Chief Operator, Mutual Telephone Co., Wahkiawa, Oahu, T. H.; Mutual Telephone Co., Wireless Department, A Aug 12, 1914

LEWIS, ELMER H., Radio Telegrapher, Panama Railroad Steamship Co., 21 State St., New York City*; res., 129 W. 93rd St., New York City, care of Carmichael. A Dec 16, 1914

LEWIS, LLOYD V., Electrical Engineer, Union Switch and Signal Co., Sayreville, Pa.; res., 110 Lincoln Ave., Edgewood Park, Pittsburgh, Pa.* A May 14, 1913

LIBBY, TYNG W., Electrician, Navy Yard, Puget Sound; res., 1337 Warren Ave., Bremerton, Wash.* A Dec 16, 1914

LICHENSTEIN, BENJ., Student, Horace Mann School, New York City; 22 W. 13rd St., New York City.* A April 2, 1913

LICHENSTEIN, EMIL ALEXANDER, Officer in charge, Radio Station, Tuckerton, N. J.*; U. S. Navy; res., 1210 Chaparral St., Corpus Christi, Tex. A Sept 8, 1915

LINDH, CHARLES A. R., Radio Operator, Marconi Wireless Telegraph Co., Merchants Exchange Bldg., San Francisco, Cal.* A Aug 26, 1914

LINDRIDGE, CHARLES D., Telephone Engineer, 632 Industrial Trust Bldg.; res., 149 Lenox Ave., Providence, R. I.* A Nov 4, 1912

LITTLEFIELD, CHARLES E., Radio Experimenter and Manufacturer of Amateur Apparatus; res., 2672 Mansfield Place, Steepenshead Bay, N. Y.* A April 15, 1914

LITTLEFIELD, PERLEY E., Electrician, First Class Radio, U. S. Navy; res., 333 Lafayette Ave., Brooklyn, N. Y.; U. S. S. "Bard," care of Postmaster, New York City.* A Oct 28, 1914

LOGAN, WILLIAM S., Clerk, Superintendent, Telegraph Department, Pennsylvania Railroad, Philadelphia, Pa.*; res., 214 W. Garfield Ave., Norwood, Delaware County, Pa. A Jan 7, 1914

LOGWOOD, CHARLES V., Engineer, Radio Telegraph & Telephone Co., New York City; res., 601 W. 180th St., New York City.* A Nov 5, 1915

LOHMANN, JOHN ANDREW, Radio Operator, Marconi Wireless Telegraph Co., New York City; res., 213 W. 120th St., New York City.* A July 1, 1914

LONG, HARVEY H., Radio Operator, Marconi Wireless Telegraph Co., 25 Elm St., New York City.* A Aug 12, 1914

LOVLEY, EDWIN W., Operator, Federal Telegraph Co., Los Angeles, Cal.; res., 1818 Magnolia, Los Angeles, Cal.* A July 8, 1914

LOVLEE, RAYMOND PARKINSON, Operator, Alaska Steamship Co., Port 2, Seattle, Wash.; res., Kenneth Hotel, Seattle, Wash.* A Oct 13, 1915

LUJAN, ARSENE N., Instructor in Physics, University of Pittsburgh, Pittsburgh, Pa.*; res., Yale Station, New Haven, Conn. A Oct 13, 1915

LYNCH, ARTHUR H., Radio Operator, Marconi Wireless Telegraph Co.; res., 118 St. James Place, Brooklyn, N. Y.* A Sept 30, 1914

LYNCH, JOSEPH LUKE, Operator, Marconi Wireless Telegraph Co., Marshalls, Cal.*; res., 188 Bergen St., Brooklyn, N. Y. A Dec 15, 1915

LYNCH, HARRY H., Radio Experimenter; res., Hyattsville, Md.* A June 3, 1914

MACFILLAN, LESLIE W., Radio Operator, National Electric Sign Co.; res., 111 Myron St., New Haven, Conn.; 107 E. 32nd St., Brooklyn, N. Y.; care of Geo. Farr.* A May 6, 1914

MACOMBER, WILLIAM E., Jr., U. S. Assistant Radio Inspector, U. S. Navy, Custom House, San Francisco, Cal.; res., 1606 Milvia St., Berkeley, Cal.* A Nov 17, 1915

MAHER, EDW. T., Student; res., 3109 Grove St., Oakland, Cal.* A July 8, 1914

MALBY, ALEXANDER E., Draughtsman, Marconi Wireless Telegraph Co., Roselle Park, N. J.; res., 108 N. Oxford St., Brooklyn, N. Y.; 17 Locust Ave., Roselle Park, N. J.* A Dec 15, 1915

*Denotes mailing address

MANLEY, LEE L., Radio Engineer, Marconi Wireless Telegraph Co., A July 1, 1914
Kahuku, Oahu, T. H.*; res., 825 Park Ave., Brooklyn, N. Y.

MANUEL, LLOYD, P. O. Clerk, U. S. Post Office Department; res., 9 A April 22, 1913
Bayside Ave., Newport, R. I.*

MAPS, CHARLES E., Marble Engraver, 188 Walnut St., Yonkers, N. Y.; A Oct. 17, 1913
res., 178 Woodworth Ave., Yonkers, N. Y.*

MARATTA, JAMES, Radio Operator, Naval Auxiliary Service; res., A Dec. 15, 1913
P. O. Box 113, Ellwood City, Pa.; U. S. S. "Brutus," care of Post-
master, New York City.*

MARKET, JOHN C., Radio Instructor, Boston School of Telegraphy, A Oct. 13, 1913
18 Boylston St., Boston, Mass.*; res., 162 Savin Hill Ave., Boston,
Mass.

MARKS, ELBERT LETCHER, Electrician (Radio), First Class, U. S. A Dec. 15, 1913
Navy; U. S. Naval Hospital, Portsmouth, Va.*

MARQUIS, A. N., Jr., Machinist, Repair Shop, Westinghouse Electric, A Aug. 26, 1913
res., 618 Spring St., Seattle, Wash.*

MARSANO, RONALD S., Radio Operator, Marconi Wireless Telegraph A Oct. 13, 1913
Co., Philadelphia, Pa.; res., 1522 Columbia Ave., Philadelphia, Pa.*

MARSHALL, LEONARD H., Radio Operator, Marconi Wireless Tele- A Aug. 12, 1913
graph Co.; res., 210 Westchester Ave., Port Chester, N. Y.*

MARTHALER, NICHOLAS J., Radio Operator, Marconi Wireless A Jan. 5, 1914
Telegraph Co., Marshall, Marin County, Cal.*; res., 128 Market
St., Emporia, Kan.

MARTIN, DeLOSS K., Student, University of California; res., 1159 A May 22, 1913
Harrison St., Oakland, Cal.*

MAXIM, HIRAM PERCY, President, The Maxim Silencer Co., Hart- A Mar. 10, 1913
ford, Conn.*; res., 550 Prospect Ave., Hartford, Conn.

MAYER, ARTHUR W.; res., 7 Chestnut St., Jamaica Plain, Mass.* A July 8, 1913

McCAA, D. GALEN, Research Engineer, McCaa Radio Research Lab- A May 28, 1913
oratory, Lancaster, Pa.; res., 218 N. Duke St., Lancaster, Pa.*

MCCOY, DANIEL, Student, Cornell University; res., 45 Lee Ave., A July 1, 1913
Yonkers, N. Y.; 6 South Ave., Ithaca, N. Y.*

MCCREARY, ARTHUR R., McCreary, Moore Co., 508 Hall Bldg., A June 17, 1913
Kansas City, Mo.; res., 1107 E. 35th St., Kansas City, Mo.*

MCGALL, PHILIP K., Radio Experimenter; res., 311 Gregory Ave., A Oct. 11, 1913
West Orange, N. J.*

McKELVEY, CARLTON ARTHUR, Chief Radio Electrician, U. S. A July 28, 1913
Navy; res., 2012 Marengo St., Los Angeles, Cal.; U. S. Naval
Radio Station, North Head, Wash., via Hwaeco, Wash.*

McKENZIE, ALBERT DONALD, Test Laboratory Assistant, Marconi A Oct. 13, 1913
Wireless Telegraph Co. of America, Roselle Park, N. J.; res., 512
Clinton Ave., Brooklyn, N. Y.*

McKIERNAN, HENRY, Radio Operator, Marconi Wireless Telegraph A Dec. 15, 1913
Co., Baltimore, Md.*

McKINNON, JOHN LAUGHLIN, Telegrapher (Radio), Federal Tele- A Sept. 22, 1913
graph Co., 206 Mercantile Place, Los Angeles, Cal.; res., 3014 Blau-
chard St., Los Angeles, Cal.*

McKNIGHT, W. ROSS, Assistant Advertising Manager, International A May 6, 1913
Correspondence Schools, Scranton, Pa.; res., 1749 Jefferson Ave.,
Scranton, Pa.*

McLELLAN, ARCHIBALD, Engineer, Marconi Wireless Telegraph Co., A Oct. 11, 1913
Ltd., Marconi Trans-Atlantic Station, New Brunswick, N. J.;
Marconi House, Strand, London, W. C., England.*

McQUADE, FRANK J., Radio Operator, Federal Telegraph Co.; res., A Jan. 17, 1914
Heena, Oahu, Hawaii.*

McSOLEY, FRANK B., Engineer, Narragansett Electric Lighting Co.; A June 25, 1913
res., 585 Cranston St., Providence, R. I.*

McWHORTER, JESSE D., Chief Electrician, U. S. Navy, Puget Sound, A Nov. 17, 1913
Wash.; res., Box 616, Bremerton, Wash.*

MEAD, JOHN CLAIR, Radio Operator, Alaska Steamship Co., Pier 2, A Sept. 8, 1913
Seattle, Wash.; res., 6264 Ellis Ave., Seattle, Wash.*

MEEKER, CHESTER G., Secretary and Treasurer, Smith-Meeker A Mar. 21, 1914
Engineering Co., 123 Liberty St., New York City; res., 18 Ella St.,
Bloomfield, N. J.*

MEISSNER, BENJ. F.; res., Huntingburg, Ind.; Purdue University, A June 3, 1914
Lafayette, Ind.*

*Denotes mailing address

1As of 1915

MENEFATH, H. J., Chief Radio Engineer, U. S. Navy, res., 1652 Uni- A April 2, 1913
versity Ave., New York City; care of Postmaster, New York, U. S. S.
Woonang.*

MEYERS, EDWARD A., Telegraph Operator, Postal Telegraph Co.; A Aug. 12, 1914
res., 2079 Market St., San Francisco, Cal.*

MILLER, ALFRED H., Patent Attorney; res., 6358 McCallum St., Ger- A Jan. 27, 1915
mantown, Philadelphia, Pa.; 1120 Chestnut St., Philadelphia, Pa.*

MILLER, THOMAS B., Vice-President and Technical Engineer, Wireless A Aug. 11, 1915
Telegraph Co., 2123 1st Ave., S., Seattle, Wash.; res., 3009 21st
Ave., W., Seattle, Wash.*

MILES, BYRON H., Instructor, U. S. Army Radio School, Fort Monroe, A July 7, 1915
Va.; res., P. O. Box 57, Fort Monroe, Va.*

MILES, OLIVER BURNHAM, Radio Operator, Federal Telegraph Co., A Nov. 17, 1915
Los Angeles, Cal.; res., 1627 Orange St., Los Angeles, Cal.*

MIRICK, CARLOS B., Vice-President, National Electrical Supply Co., A Mar. 10, 1915
Washington, D. C.; res., 1638 R St., N. W., Washington, D. C.;
1110 New York Ave., N. W., Washington, D. C.*

MONCIAU, JEAN, Navigating Officer, "Commerwynne," Royal Dutch A July 8, 1914
West India Mail, Amsterdam, Holland; res., Nassau-Laan 5,
Looze, Holland.*

MONSCHAU, FELIX S., Operator, Marconi Wireless Telegraph Co. of A Nov. 17, 1915
America, Edison Bldg., New York City.*

MONICAL, S. R., Chief Radio Electrician, Naval Radio Station, St. A Mar. 12, 1914
Yacine, Fla.; U. S. S. "Brooklyn," care of Postmaster, New
York.*

MOORE, H. AHERTON, Sales Agent for Radio Apparatus; res., 150 A Nov. 6, 1912
2nd Ave., Newark, N. J.*

MOORE, L. B., Mechanical and Electrical Engineer, Jones & Lamson, A June 3, 1912
Machine Co., 47 Summer St., Springfield, Vt.*

MOORE, ROBERT R., Mortgage Loans, 211 Commerce Bldg., Kansas A July 1, 1914
City, Mo.; res., 200 E. Armour Blvd., Kansas City, Mo.*

MORAN, LEON STEELE, Electrical Engineer, Electric Testing De- A July 8, 1914
partment, Electric Cable Co., Bridgeport, Conn.*; res., 347 Golden
Hill St., Bridgeport, Conn.

MORICROFT, J. H., Prof., Assistant Professor Electrical Engineer- A Dec. 3, 1913
ing, Columbia University, New York City.*

MORGAN, ALFRED POWELL, Manufacturer, 15 Alvin Place; res., A May 12, 1915
10 Brookfield Road, Montclair, N. J.*

MORGAN, NEIL L., Shift Engineer, The Towers, Glace Bay, Nova A April 21, 1915
Scotia, Canada.*

MORRIS, W. C., Construction Engineer, Marconi Wireless Telegraph A Jan. 21, 1914
Co.; res., 928 S. 58th St., Philadelphia, Pa.*

MORSE, GUY E., Student, University of Illinois; res., 1238 Harrison A July 8, 1914
St., Kansas City, Mo.; 211 E. John St., Champaign, Ill.*

MOYA, JOHN, Laboratory Assistant, Radio Telephone & Telegraph Co., A Jan. 21, 1914
New York City; res., 187 W. 135th St., New York City.*

MOYER, SAMUEL G., Clerk, Bureau of Navigation, Department of A July 1, 1914
Commerce, Washington, D. C.; res., George Washington Inn,
Washington, D. C.*

MUR, JAMES B., Jr., Student, University of California; res., 539 38th A Oct. 14, 1914
St., Oakland, Cal.*

MULLEN, JOSEPH GERALD, Chief Radio Electrician, U. S. Navy; A May 12, 1915
res., 50 Arlington St., Leominster, Mass.; Box 52, Portsmouth, Va.*

MUTLER, FRED, Radio Inspector, Tropical Radio Telegraph Co., 17 A July 16, 1913
Henry Place, New York City.*

MUTLEN, JAMES WALTER, Assistant Receiving Engineer, Marconi A April 14, 1915
Wireless Telegraph Co., Louisburg, Nova Scotia, Canada.*

MUTLINS, JAMES WHITWORTH, Electrician, First Class (Radio), A Oct. 13, 1915
U. S. Navy; U. S. Naval Radio Station, Balboa, Canal Zone,
Panama.*

MUNSON, JOHN ALBERT, Chief Electrician (Radio), U. S. Navy; res., A Dec. 15, 1915
11 N. 17th St., Omaha, Neb.; U. S. S. "Helena," care of Post-
master, San Francisco, Cal.*

MURDOCK, DANIEL R. W., Treasurer, Wm. H. Murdock Co., Chelsea, A Jan. 27, 1915
Mass.; res., 28 Baker Road, Everett, Mass.; 158 Carter St., Chelsea,
Mass.*

*Denotes mailing address

MURDOCK, JAMES M., Secretary, Wm. J. Murdock Co., Chelsea, Mass.; res., 33 Rutherford Ave., Charlestown, Mass.* A Dec. 10, 1915

MURPHY, EUGENE B., Assistant Radio Engineer, Federal Telegraph Co., Hobart Bldg., San Francisco, Cal.; res., Burlingame, Cal.* A Oct. 1, 1915

MURPHY, THOMAS L., Chief Electrician in charge Naval Radio Station, U. S. Navy; res., 310 Colonial Apartments; U. S. Naval Radio Station, Navy Yard, Washington, D. C.* A Jan. 20, 1915

MURRAY, EUGENE M., Construction Engineer, Marconi Wireless Telegraph Co., 601 American Bldg., Baltimore, Md.* A Jan. 21, 1915

MURRAY, STEPHEN A., Engineer's Clerk, Fifth Avenue Bldg. Co., 200 Fifth Ave., New York City; res., 401 Manhattan Ave., New York City.* A Oct. 1, 1915

NALLY, EDWARD J., Vice-President and General Manager, Marconi Wireless Telegraph Co., 233 Broadway, New York City; res., Ossining, N. Y.* A July 1, 1915

NAUGLE, PHILIP D., Radio Engineer, Kilbourne & Clark Manufacturing Co., 71 Columbia St., Seattle, Wash.*; res., 115 Melrose St., N., Seattle, Wash.* A Nov. 1, 1915

NELSON, FRANCIS A., Wireless Operator, Marconi Wireless Telegraph Co., Miami Beach, Fla.; P. O. Box 123, Virginia Beach, Va.* A Aug. 2, 1915

NELSON, N. O., Radio Instrument Maker and Installer, Kilbourne & Clark Manufacturing Co., 71 Columbia St., Seattle, Wash.; res., 1159 19th Ave., N., Seattle, Wash.* A Sept. 22, 1915

NENNESBERG, ALEXIS A., Chief of the Radio Station, Russian Government; res., Kerby, Nikolajevsk, Primorsky, Russia; Okhotsk, Kamchatka, Russia.* A April 1, 1915

NEWTON, EDWARD C., res., 3175 E. 116th St., Cleveland, O.* A July 1, 1915

NICHOLLS, GEORGE WILLIAM, District Superintendent, Marconi Wireless Telegraph Co., Filene Bldg., Boston, Mass.; res., 9 Wolcott St., Malden, Mass.* A June 1, 1915

NICKEL, FRED E., Radio Operator, Federal Telegraph Co., Merchants Exchange Bldg., San Francisco, Cal.* A June 1, 1915

NIELSEN, JAMES, Radio Electrician, U. S. Navy; res., 1513 Greene Ave., Brooklyn, N. Y.; U. S. Radio Station, Radio, Va.* A Nov. 17, 1915

NOLAN, EDWARD J., Student, Brown's Business College, Flatbush and Lafayette Aves., Brooklyn, N. Y.* A June 12, 1915

NOTTAGE, WILLIAM H., Radio Engineer, Marconi Wireless Telegraph Co., Ltd., Chelmsford, England; res., 29 London Road, Chelmsford, England.* A Jan. 1, 1915

ODGEN, HERBERT G., Lawyer; res., Stamford, Conn.; 52 William St., New York City.* A Feb. 1, 1915

OGG, GLEN ROY, Chief Radio Electrician, U. S. Navy, U. S. S. "North Carolina"; res., 3501 Cedar Ave., Minneapolis, Minn.* A May 22, 1915

OHLSON, OLOF, Mechanical Superintendent, Waltham Watch Co., Waltham, Mass.; res., 173 Crafts St., West Newton, Mass.* A Jan. 1, 1915

O'LEARY, JOHN PATRICK, Manager, Federal Telegraph Co., Phoenix, Ariz.; res., 311 N. 2nd Ave., Phoenix, Ariz.; Federal Telegraph Co., Hotel Adams, Phoenix, Ariz.* A May 2, 1915

O'NEILL, JOHN HUGH, Radio Operator (Poulson System), Federal Telegraph Co., San Francisco, Cal.; res., 1613 47th Ave., San Francisco, Cal.* A Dec. 1, 1915

O'NIEL, DONALD H. C., Robert O'Niel Piano Co., St. Louis, Mo.; res., 5710 Bartmer Ave., St. Louis, Mo.* A June 15, 1915

OSBORNE, HAROLD S., Engineering Department, American Telegraph & Telephone Co., 15 Dey St., New York City.* A Jan. 1, 1915

OSGOOD, ENSIGN W. H., Radio Officer, U. S. Navy, U. S. S. "Eagle"; res., Postmaster, New York City, U. S. S. "Eagle."* A Oct. 1, 1915

OXNER, EDWIN K., Radio Operator, Marconi Wireless Telegraph Co., Boston, Mass.; res., 5 Oakman St., Dorchester, Mass.* A April 8, 1915

PACKMAN, M. E., Consulting Electrical and Radio Engineer, Dodge Institute of Technology, Valparaiso, Ind.* A Mar. 12, 1915

PAGE, NEWELL C., Assistant Professor of Physics, Massachusetts Institute of Technology; res., 28 Maxwell Road, Winchester, Mass.* A Dec. 1, 1915

PAINE, ROGER W., Ensign, Officer, U. S. Navy, U. S. S. "Patterson"; res., Postmaster, New York City, U. S. S. "Patterson."* A July 1, 1915

*L. notes mailing address

†As of 1915

PARKER, C. R., Wireless Operator, Federal Telegraph Co., Hobart Bldg., San Francisco, Cal.* A Nov. 17, 1915

PARROTT, JAMES ELMORE, Electrician, Third Class (Radio), U. S. Navy, Radio Station, Puget Sound, Wash.; Box 616, Bremerton, Wash.* A Nov. 17, 1915

PASSANO, LEONARD WARD, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.; res., 2502 N. Charles St., Baltimore, Md.* A Dec. 15, 1915

PAYSSE, ALEXIS A., Port Warden, City of Seattle; res., Hotel Burke, Seattle, Wash.; Pier 1, Seattle, Wash.* A Sept. 22, 1915

PEARSON, HERBERT B., Hardware Importer; res., 907 Sterling Place, Brooklyn, N. Y.* A July 1, 1914

PEARSON, ROLAND D., Supply Salesman, J. H. Pearson Co., 81 White St., New York City; res., Branchville, N. J.* A Jan. 20, 1915

PEDERSEN, MARTIN P., Radio Engineer, Poulson System; res., Rohns-gade 22, Copenhagen, Denmark.* A Oct. 11, 1914

PEGRAM, GEORGE B., Ph.D., Professor of Physics, Columbia University, New York City.* A June 3, 1912

PEIFTER, LAWRENCE JOSEPH, Chief Electrician (Radio), U. S. Navy; U. S. S. "Montezuma," Olongapo, P. I.* A Nov. 17, 1915

PELHAM, FRED B., Shop Clerk, Ford Motor Co., Washington, D. C.; res., 604 Howard Place, N. W., Washington, D. C.* A April 22, 1914

PEMBER, HAROLD N., Student, Sales Agent, Radio Apparatus, Pratt Institute; res., 2 Cone St., Hartford, Conn.; 28 Clifton Place, Brooklyn, N. Y.* A Aug. 12, 1914

PENNYACKER, THOS. R., Student, Harvard University; res., 12 Thayer Hall, Cambridge, Mass.; 6 Chauncy St., Cambridge, Mass.* A July 1, 1914

PETERKIN, ERNEST P., Electrician (Radio), First Class, U. S. Navy; res., Radio, Balboa, Radio, Canal Zone, Panama.* A April 21, 1915

PETERS, ALFRED E., Chief Electrician (Radio), U. S. Navy; U. S. Naval Radio Station, Olongapo, P. I.* A May 12, 1915

PETERS, JOHN W., Patent Attorney, 52 William St., New York City; res., Roslyn, L. I., N. Y.* A Aug. 12, 1914

PETERSEN, SHELDON N., Sales Manager, Haller-Cunningham Electrical Co., San Francisco, Cal.; res., 1631 Fulton St., San Francisco, Cal.* A Feb. 10, 1915

PETERSON, ARTHUR W., Radio Operator, Marconi Wireless Telegraph Co., San Francisco, Cal.; res., 119 Orsogo Ave., Mission Terrace, San Francisco, Cal.* A Jan. 5, 1916

PETERSON, C. EDWARD, Instructor, Radio Work, Y. M. C. A. Radio School; res., 1008 Raleigh St., Portland, Ore.* A Nov. 17, 1915

PETERSON, CHARLES WALLACE, Student, University of Washington; res., 2922 3rd Ave., W., Seattle, Wash.* A Dec. 15, 1915

PETERSON, JOEL, Chief Draughtsman, Marconi Wireless Telegraph Co., Aldene, N. J.; res., 21 Manhattan Ave., New York City.* A Dec. 15, 1915

PETIT, MORTLOCK S., Commission Merchant, Pettit & Leed, 38 N. Moore St., New York City; res., Van Cortlandt Terrace, Yonkers, N. Y.* A Dec. 15, 1915

PHILBRICK, JOHN S., Shift Engineer, Marconi Wireless Telegraph Co., Bolinas, Cal.; res., 1530 La Loma Ave., Berkeley, Cal.* A May 12, 1915

PHINNY, J. NELSON, Naval Radio Operator, Tuckerton Radio Station, Tuckerton, N. J.; res., Tuckerton, N. J.; Tuckerton Radio Station, Box 10, Tuckerton, N. J.* A Feb. 1, 1914

PICKEN, WILLIAM J., Engineer, Marconi Wireless Telegraph Co., Marconi House, Strand, London, England.* A Sept. 30, 1914

PICKERILL, ELMO NEALE, Instructor, Marconi Wireless Telegraph Co., Woolworth Bldg., New York City; res., 218 W. 16th St., New York City.* A April 1, 1914

PIERSON, WALTER, Relief Agent, Oakland, Antioch & Eastern Railway; res., Walnut Creek, Contra Costa County, Cal.* A June 16, 1915

PILLSBURY, EDWARD BUTLER, General Superintendent, Transoceanic Division, Marconi Wireless Telegraph Co., New York City; res., 313 E. 21st St., Brooklyn, N. Y.* A July 1, 1914

PITTS, FRANCIS D., Instructing Engineer and Proprietor, Eastern Radio Institute, 809 Boylston St., Boston, Mass.*; res., 10 Central St., Savonville, Mass.* A Aug. 11, 1915

*L. notes mailing address †As of 1915

POHL, J. A., Superintendent Gulf Division, Marconi Wireless Telegraph Co., 529 St. Ann St., New Orleans, La.* A July 1, 1914

PORTER, CHARLES P., Chief Radio Electrician, Radio Station, Key West, Fla.* A Oct. 28, 1914

PORTER, RALPH H., Bank Clerk, Merchants National Bank, Salem, Mass.; res., 7 Home St., Beverly, Mass.* A Sept. 9, 1914

POTTS, JEROME, Radio Operator, Tropical Radio Telegraph Co., 17 Battery Place, New York City*; res., 148 Clinton Ave., Brooklyn, N. Y.* A Aug. 12, 1914

POWELL, EDWIN L., Topographic Draftsman, U. S. Geological Survey, Washington, D. C.; res., 908 Kennedy St., N. W., Washington, D. C.* A April 22, 1914

POWER, HAROLD J., Special Student, Harvard Graduate School; P. O. Box 55, Tufts College, Mass.* A Mar. 31, 1914

POWERS, WALTER PALMER, Electrical Engineer, National Electric Signaling Co., Bush Terminal, Brooklyn, N. Y.; res., 128 Linden Ave., Brooklyn, N. Y.* A Aug. 12, 1914

PRASTKA, ANTHONY, Gunner (Radio Duty), U. S. Navy; res., 1216 E. Capitol St., Washington, D. C.; U. S. Radio Station, Navy Yard, Washington, D. C.* A April 1, 1914

PRATT, HARADEN, Radio Testing and Experimenting, Radio Laboratory, Mare Island, Cal.; res., 1510 Lombard St., San Francisco, Cal.* A April 1, 1914

PRENDERGAST, ROBERT M., Experimenter, Goodchild Electrical Co., Inc., 247 Greenwich St., New York City; res., Lincoln Ave., Hollis, N. Y.* A Dec. 30, 1913

PRENTISS, JOSEPH A., Designing Engineer, American Radio & Research Corporation, Tufts College, Mass.; res., 206 Prospect St., Belmont, Mass.* A Sept. 30, 1914

PRESTON, JOHN ERNEST; res., 859 Fulton St., Brooklyn, N. Y.* A July 1, 1914

PRICE, H. S., Student, Princeton University, Tower Club, Princeton, N. J.; res., 135 Clinton Ave., Brooklyn, N. Y.* A Charter Member W.I.

PRIEBE, HENRY FRED, Electrician, Kent Water & Light Co., Kent, O.; res., 1312 Cedar St., Kent, O.* A Sept. 22, 1914

PURSSELL, CLARENCE V., Secretary and Treasurer, Pursell Radio & Electric Co.; res., 1257 Morton St., Dorchester, Mass.* A June 3, 1914

RACAZA, VINCENT A., Student, Bliss Electrical School, Washington, D. C.; res., 92 Juan Luna, Cebu, P. I.* A Mar. 21, 1914

RACKSTRAW, NORMAN CARTER, Engineer, Marconi Wireless Telegraph Co., Ltd., Marconi House, Strand, London, England; res., 19 Ravenscourt Park, London, W., England.* A Nov. 17, 1914

RANDOW, ALBERT H., Operator, Marconi Wireless Telegraph Co.; res., 1913 Ruess St., Philadelphia, Pa.* A Jan. 13, 1914

RAU, ADOLPH H., Engineer in charge Trans-Pacific Stations, Marconi Wireless Telegraph Co.; Marconi Wireless Telegraph Co., Kahuku, Oahu, T. H.* A Charter Member W.I.

RAWSON, H. E., Manager, Rawson Ranches, Kuna, Idaho.* A July 1, 1914

READ, HARRY, Fellow in Physics, University of North Dakota; res., 728 Chestnut St., Grand Forks, N. D.* A Oct. 13, 1914

REAGAN, HARMON FRANKLIN, Radio Operator, Alaska Steamship Co.; res., Box 77, Richmond Beach, Wash.; care of C. B. Cooper, Alaska Steamship Co., Seattle, Wash.* A June 16, 1914

REDE, G. ROSE, Radio Experimenter; res., 210 W. Madison St., Baltimore, Md.* A April 22, 1914

REDFERN, O. R., Manager and Inspector, Duluth Station, Marconi Wireless Telegraph Co., Duluth, Minn.; res., 10th St., and 9th Ave., W., Duluth, Minn.* A July 8, 1914

REEPEN, G. JULIUS, Student, Marconi Wireless Telegraph Co.; res., 2900 Broderick St., San Francisco, Cal.; care of William Grosse & Co., 612 Howard St., San Francisco, Cal.* A Feb. 10, 1914

REVEREND, H. A., Manufacturer, Wireless X-ray Apparatus, 512 Hall Bldg., Kansas City, Mo.*; res., 2628 Agnes St., Kansas City, Mo.* A Nov. 17, 1914

REYNOLDS, BENJAMIN J., Chief Radio Electrician, U. S. Navy; res., 21 Carey St., Newport, R. I.; Naval Radio Station, Charleston, S. C.* A April 21, 1914

REYNOLDS, HARRY M., Radio Operator and Purser, S. S. "San Smith"; res., Marshfield, Ore.* A Sept. 8, 1914

*Denotes mailing address

RIBLER, NATHANIEL J., Radio Operator, Marconi Wireless Telegraph Co., Edison Bldg., New York City*; res., 531 E. 148th St., Bronx, New York City.* A Oct. 13, 1915

RICHARDS, THOS. S., Radio Experimenter; res., 606 E. 3rd St., Brooklyn, N. Y.* A June 3, 1912

RICHARDSON, FRANCIS, Material Inspector, Pennsylvania Railroad Co., Telegraph and Telephone Department, Philadelphia, Pa.; res., 135 S. Orange St., Media, Pa.*; 1708 Wesley Ave., Ocean City, N. J.* A Mar. 10, 1915

RICHARDSON, KENNETH, Manager, Radio Time Instrument Co.; P. O. Box 371, Erie, Pa.; res., 753 E. 7th St., Erie, Pa.; P. O. Box 180, Erie, Pa.* A Sept. 30, 1914

RICHMOND, HAROLD B., Assistant Manager, General Vehicle Co.; Long Island City, N. Y.*; res., 12 George St., Medford, Mass.* A July 1, 1914

RIDDGS, ROBERT V., Sub-Lieutenant, R. N. C. V. R., Department of Naval Service, Ottawa, Canada*; res., 183 Slater St., Ottawa, Canada.* A Oct. 15, 1913

RECKSIEK, WILLIAM H., Jr., Radio Operator, U. S. Navy, U. S. S. "Minnesota"; res., 1222 C St., S. W., Washington, D. C.* A Aug. 12, 1914

RIEBER, FRANK, Physicist, Inventor, Rieber Laboratories; res., 15 Canyon Road, Berkeley, Cal.; P. O. Box 135, Berkeley, Cal.* A Feb. 10, 1915

RUES, ELIAS E., Electrical and Mechanical Engineer and Inventor, 116 Nassau St., New York City.* A Aug. 12, 1914

RIGGERS, GEORGE E., Electrician, Electrical School, Mare Island, Cal.*; res., Joyce Apartments, 1658 Bush St., San Francisco, Cal.* A June 16, 1915

RINGGOLD, PAUL C., Stenographer, Marconi Wireless Telegraph Co.; res., 129 Clinton Ave., Brooklyn, N. Y.* A April 1, 1914

RINKER, KENNETH N., Student (Special Preparatory); res., Dillwyn, Buckingham County, Va.* A Jan. 13, 1915

ROBINSON, R. J., Electrical Draftsman, Navy Yard, Drafting Room, Mare Island, Vallejo, Cal.* A Jan. 21, 1914

ROCKWELL, CLARENCE R., Gunner, U. S. Navy; U. S. Naval Radio Station, Chelsea, Mass.* A Jan. 1, 1916

ROCKWELL, JOHN HOBART, Radio Officer, U. S. Navy; res., Wells-ville, N. Y.; U. S. S. "North Carolina," care of Postmaster, New York.* A Nov. 17, 1915

ROCKWELL, ROBERT LEONARD, Head of Department of Electrical Engineering, Seattle Engineering School, 1st Ave., West and Roy Sts.; res., 161 Aloha St., Seattle, Wash.* A Oct. 13, 1915

RODMAN, HAROLD LEE, Chief Operator Trans-Pacific Plant, Federal Telegraph Co., Hecia, Oahu, T. H.; via Honolulu*; res., Hecia, Oahu, T. H., via Honolulu.* A Sept. 30, 1914

ROENTZ, CARL BERNARD, Wireman, Panama Canal, Canal Zone; res., 826 Michigan Ave., Sheboygan, Wis.* A Sept. 8, 1915

ROGATSKY, CARL H., Radio Experimenter; res., 167 Worcester Ave., Pasadena, Cal.* A Sept. 30, 1914

ROGERS, J. HANS, Experimenter; res., Hyattsville, Md.* A Jan. 13, 1915

ROSEBROUGH, THOMAS REEVE, Professor, Electrical Engineering, University of Toronto, Toronto, Ont., Canada; res., 92 Walmer Road, Toronto, Ont., Canada.* A July 7, 1915

ROTHENBERG, MERLE EDWIN, Electrician, First Class (Radio), U. S. Navy, Radio Station, Puget Sound; res., 1403 S. 5th St., Bessie, Neb.; Box 646, Bremerton, Wash.* A Nov. 17, 1915

ROTZAHN, GEORGE M., Chief Electrician (Radio), U. S. Navy, Radio Station, San Juan, P. R.; res., Parada 412, San Juan, P. R.; P. O. Box 788, San Juan, P. R.* A Mar. 25, 1915

RUSSELL, A. H. KEITH, Radio Operator, Naval Service of Canada, Newcastle, N. B., Canada; res., 353 Markham St., Toronto, Canada.* A April 11, 1915

RUSSELL, EDGAR, Major, Signal Corps, U. S. Army, War Department, Honolulu, T. H.* A Feb. 4, 1914

RUSSELL, STANLEY ROBERT, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.* A Oct. 13, 1915

RUSSELL, WILLIAM JAMES, Chief Electrician (Radio), U. S. Navy; res., Apopostin, Fla.; U. S. S. "Yankton," care of Postmaster, New York.* A July 7, 1915

*Denotes mailing address 1As of 1915

RUST, NOEL MEYER, Wireless Engineer, Marconi Wireless Telegraph Co., Ltd., Letterfrack, County Galway, Ireland. A July 7, 1915

RYAN, FRED C., Student, Leland Stanford, Jr., University; 219 Addison St., Palo Alto, Cal. A Nov. 1, 1914

SABIN, GLENN C., Electrician, Western Union Telegraph Co., Northampton, Mass.; res., 178 Prospect St., Northampton, Mass. A July 1, 1915

SABO, JOHN S., Inspector and Construction Man, Marconi Wireless Telegraph Co., San Francisco, Cal.; res., 126 Albion Ave., San Francisco, Cal.; Marconi Wireless Telegraph Co., Merchants Exchange Bldg., San Francisco, Cal. A Mar. 21, 1915

SACHS, HAROLD SAMUEL, Student; res., Hotel Leonori, New York City; 726 Sutter St., San Francisco, Cal. A July 7, 1915

SADENWATER, HARRY, Radio Inspector, U. S. Government; res., East Side Y. M. C. A., 153 E. 86th St., New York City; Custom House, New York City. A April 17, 1915

ST. JAMES, ROBERT T., Electrician, Mahaiwe Theatre, Great Barrington, Mass.; res., Great Barrington, Mass. A May 22, 1915

SAIZGEBER, JOHN W., Clerk, Constock, Cheney & Co., Ivoryton, Conn.; res., Ivoryton, Conn.; Box 126, Ivoryton, Conn. A Aug. 2, 1915

SANTOS, ANTHONY SILVA, Engineer, Spray Engineering Co., 93 Federal St., Boston, Mass.; res., 27 Ware St., Cambridge, Mass. A April 1, 1915

SAWYER, ERNEST W., Canadian Manager, Universal Radio Syndicate, Newcastle, N. B., Canada. A Nov. 11, 1914

SAYRE, WILLIAM L., Radio Electrician, U. S. Navy, Tuckerton, N. J.; res., 3818 Spruce St., Philadelphia, Pa.; Tuckerton Radio Station, Tuckerton, N. J. A Nov. 17, 1914

SCANLIN, JOHN WALLACE, Chief Electrician, U. S. Navy; res., 710 Leonard St., Brooklyn, N. Y.; Naval Radio Station, Radio, Va. A April 21, 1915

SCHERMERHORN, J. L., Chief Engineer, American Transformer Co., Newark, N. J. A Nov. 3, 1914

SCHLANG, HERMAN, Clerk, Radio Service Department, Department of Commerce, Custom House, New York City; res., 1384 Bristow St., Bronx, New York City. A Sept. 2, 1915

SCHMIDT, G. AMBROSE, Watt-hour Meter Tester, Washington, D. C.; res., 1936 1st St., N. W., Washington, D. C. A Jan. 21, 1915

SCHNEIDER, WILLIAM P., Radio Operator, Marconi Wireless Telegraph Co., Marshalls, Cal.; res., 2716 E. 22nd St., Oakland, Cal. A Jan. 5, 1915

SCHRAM, JACK, JR., Stationary Clerk, Tiffany & Co., New York City; res., 21 Locust St., Brooklyn, N. Y. A June 3, 1915

SCHUSS, WILLIAM, Radio Electrician, First Class, U. S. Navy; res., 317 York St., Jersey City, N. J.; U. S. Naval Radio Station, Norfolk, Va. A April 14, 1915

SCOTT, LEO L., Receiver, San Francisco-Oakland Terminal Railways, 22nd and Grove Sts., Oakland, Cal.; res., 1281 Howe St., Oakland, Cal. A Jan. 14, 1915

SEAMAN, ERNEST BACON, Telegrapher, 26 East Ave., Pawtucket, R. I.; res., 76 Park Place, Pawtucket, R. I. A Mar. 19, 1915

SECOR, H. W., Consulting Engineer, Electro Importing Co., 233 Fulton St., New York City; res., care of E. Ackerson, Ramsey, N. J. A Nov. 1, 1914

SEELEY, ARTHUR PLATT, Assistant Electrical Engineer, Winchester Repeating Arms Co., New Haven, Conn.; res., 55 Pearl St., New Haven, Conn. A July 1, 1915

SEIBERT, LAWRENCE W., Electrical Assistant, U. S. Signal Service, 39 Whitehall St., New York City; res., 31 Benton St., Trenton, N. J. A April 15, 1915

SEIBOLD, WILLIAM JOHN, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.; res., 1821 E. Thayer St., Philadelphia, Pa. A Dec. 15, 1914

SERVICE, CHARLES A., JR., Student, University of Pennsylvania, 3337 Walnut St., Philadelphia, Pa.; res., Bala, Pa. A Nov. 17, 1914

SHAEFFER, FRANCIS A., Radio Operator, Alaska Steamship Co., Pier 2, Seattle, Wash.; res., San Telmo Apartments, Apartment 207, Seattle, Wash. A Sept. 8, 1915

SHAW, GLEN EDWARD, First Operator, U. S. Navy, U. S. S. "Admiral Dewey"; res., 528 Pioneer Bldg., Seattle, Wash. A Sept. 8, 1915

SHECKLEN, GEORGE FREDERICK, Marconi Wireless Telegraph Co., Marshalls, Cal.; res., 3513 Benner St., Philadelphia, Pa. A Dec. 15, 1914

*Denotes mailing address

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SHELBY, JOSEPH BRYAN, Sales Engineer, General Electric Co., 30 Church St., New York City; res., 510 W. 123rd St., New York City. A Feb. 24, 1915

SHEPPARD, HARRY S., Assistant Professor of Electrical Engineering, University of Michigan, 109 New Engineering Bldg., Ann Arbor, Mich.; res., 1315 Wilmet St., Ann Arbor, Mich. A Dec. 30, 1914

SHERMAN, GEORGE C., Treasurer, St. Regis Paper Co.; res., 172 Ten Eyck St., Watertown, N. Y. A Aug. 12, 1914

SHORT, HERBERT M., Resident Inspector, Marconi International Marine Communication Co., Ltd., London, Eng.; res., 1164 44th St., Brooklyn, N. Y.; Marconi International Marine Communication Co., Ltd., Edison Bldg., Duane St., New York City. A Sept. 9, 1914

SINGER, S., Assistant Purchasing Agent, Marconi Wireless Telegraph Co., New York City; res., 2540 Grand Ave., Bronx, New York City. A Sept. 3, 1913

SLACK, NUGENT H., Engineer in charge High Power Station, Marconi Wireless Telegraph Co., Honolulu, T. H.; res., 41 S. Main St., Wallingford, Conn. A Aug. 12, 1914

SMITH, ARTHUR E., Radio Operator, Marconi Wireless Telegraph Co.; res., 305 E. 114th St., New York City. A July 7, 1915

SMITH, ARTHUR LEON, Head of Physics Department, Fargo High School, res., 508 11th St., S., Fargo, N. D. A Dec. 15, 1915

SMITH, FRANK D., President, Smith-Meeker Engineering Co., 123 Liberty St., New York City; res., 541 Beeger St., Brooklyn, N. Y. A Mar. 24, 1915

SMITH, MALCOLM H., Student, Massachusetts Institute of Technology, 24 Trowbridge Place, Cambridge, Mass.; res., 115 Prospect St., Gloucester, Mass. A May 6, 1914

SMITH, HARRIS F., Engineer, U. S. Lighthouse Service, Portsmouth, R. I.; res., 60 W. 16th St., New York City. A Sept. 30, 1914

SMITH, RALPH C., res., 129 N. 14th St., East Orange, N. J. A April 17, 1915

SMITH, SIDNEY B., Assistant Engineer, Marconi Wireless Telegraph Co.; res., Coverdale, Gloucester Road, Bognor, Sussex, England. A Jan. 21, 1914

SMITH, SAMUEL THOMAS, Chief Electrician (Radio), U. S. Navy, U. S. S. "Georgia"; res., care of O. P. Smith, Mexico, Mo. A Feb. 24, 1915

SMYTHE, EDWIN H., Engineer and Patent Expert; res., Chicago, Ill. A Mar. 10, 1915

SNYDER, WILLIAM ELLSWORTH, Chief Electrician (Radio), U. S. Navy; U. S. S. "Arkansas," care of Postmaster, New York. A Mar. 31, 1915

SNYDER, NATHANIEL M., Chief Engineer, Snyder Power & Grain Co.; res., Scottsbluff, Neb.; P. O. Box 218, Scottsbluff, Neb. A Dec. 30, 1915

SNYDER, NORMAN G., Student, Cornell University, Ithaca, N. Y.; res., 211 University Ave., Ithaca, N. Y. A April 15, 1914

SOUDER, LEON A., Radio Operator, Signal Corps, U. S. Army; U. S. Army Transport "Budford," San Francisco, Cal. A Dec. 15, 1915

SPANGENBERG, LESTER, Mechanical Draftsman, American Locomotive Co., 30 Church St., New York City; res., 25 S. 4th St., Lakewood, Passaic County, N. J. A Jan. 22, 1915

SPENCE, PAYTON W., Engineering Department, American Telephone & Telegraph Co., New York City; res., 293 Lenox Ave., New York City. A Feb. 4, 1914

SPOON, WILLIAM HOBART, Laboratory Assistant, Dodge Institute of Telegraphy, Valparaiso, Ind.; res., 1701 Orman Ave., Pueblo, Colo. A Oct. 13, 1915

SPRADO, HUGH RALPH, Radio Engineer, de Forest Radio Telegraph & Telephone Co.; res., 911 Grand St., Alameda, Cal. A May 22, 1914

SPRAGUE, CLARENCE A., Assistant Examiner, U. S. Patent Office, Washington, D. C.; res., 3616 Newark St., Washington, D. C. A Sept. 30, 1914

STANLEY, HOWARD L., Garage Manager; res., Babylon, L. I., N. Y. A Nov. 5, 1913

STANLEY, LYMAN ROBERTS, Treasurer, The Stanley Co., Swampscott, Mass.; res., 52 Burrill St., Swampscott, Mass. A May 22, 1914

STANTLEY, J. JOSEPH, Assistant Manager, Radio Department, Manhattan Electric Supply Co., 17 Park Place, New York City; res., Hampton Court Terrace, Jersey City, N. J. A May 12, 1915

STANWICK, CHARLES A., Electrical Engineer, Crocker-Wheeler Co., Upper, N. J.; res., 419 Main St., Orange, N. J. A Oct. 13, 1915

*Denotes mailing address

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STAPLETON, ARNOLD B., Engineer Draftsman, Marconi Wireless Telegraph Co., Ltd., Marconi Works, Chelmsford, Essex, England; res., Eppingdale, 131 Leytonstone Road, London, E., England; 44 Broomfield Road, Chelmsford, Essex, England.* A Nov 17, '95

STEINER, CHARLES L., Student of Engineering, Columbia University, New York City; res., 596 Jackson Ave., Long Island City, N. Y.; 513 W. 113th St., New York City.* A May 6, '94

STEMPLE, WALDEMAR M., Expert Radio Aid, Brooklyn Navy Yard, U. S. Navy; res., 832 Washington Ave., Station B, Brooklyn, N. Y.* A April 11, '95

STEPHENS, EDWARD CARR, Radio Operator, Marconi Wireless Telegraph Co., Port Arthur, Tex.*; res., 109 Lincoln St., Joliet, Ill. A Dec 15, '97

STERN, MORTON WILLIAM, Marconi Wireless Telegraph Co., Roselle Park, N. J.; res., 705 W. 179th St., New York City; 10 Berwyn St., Roselle Park, N. J.* A Jan 5, '97

STETSON, DONALD T., Student Electrical Engineering, University of Minnesota, P. O. Box 5559; res., 2162 Carroll Ave., St. Paul, Minn.* A Sept 30, '94

STEVENS, A. M., Radio Installation, Radio Office, Mare Island, Cal.; res., 926 Cowper St., Palo Alto, Cal.* A Nov 4, '95

STEVENS, LOUIS WALDO, Student, Massachusetts Institute of Technology, Boston, Mass.*; res., 394 Riverway, Boston, Mass.* A Dec 15, '97

STEVENS, THOMAS M., Superintendent, Southern Division, Marconi Wireless Telegraph Co., American Bldg., Baltimore, Md.; res., Watertown, Mass.* A April 1, '93

STEVENSON, VALE VAUGHN, Electrical Engineer, Postal Telegraph Co., San Francisco, Cal.* A Aug 12, '93

STEWART, CHARLES H., Secretary; res., St. David's, Delaware, Pa.* A July 1, '93

STONE, CARRINGTON H., Tester, Commonwealth Edison Co., 28 N. Market St., Chicago, Ill.; res., 1142 E. 35th St., Chicago, Ill.* A July 8, '93

STONE, CLARENCE G., Jr., Student, Columbia University; res., 273 Rich Ave., Mount Vernon, N. Y.* A Dec 16, '94

STONE, ELLERY W., Assistant Radio Inspector, Department of Commerce, San Francisco, Cal.*; res., 317 Lee St., Oakland, Cal. A April 22, '93

STONE, FRANK M., Student; res., 7919 Jeanette St., New Orleans, La.* A July 8, '95

STOTZ, CHARLES CARL, Radio Officer, U. S. Navy; res., 470 Evans Ave., El Reno, Okla.; U. S. Naval Radio Station, Key West, Fla.* A April 21, '97

STROEBEL, JOHN C., Jr., Radio Operator, Tropical Radio Telegraph Co., New Orleans, La.; res., Pleasant Valley, Wheeling, W. Va.* A Aug 12, '95

STURDWANT, L. W., Operator, Marconi Wireless Telegraph Co., Marshall, Cal.*; res., 401 King St., Ravenna, O. A Jan 5, '97

STUTESMAN, JOHN HAL, Second Lieutenant of Infantry, U. S. Army, U. S. Navy; res., 68 E. 2nd St., Peru, Ind.; care of The Adjutant General, H. D. Army, Washington, D. C.* A April 21, '97

SUTTON, JAMES W., Chief Electrician (Radio), U. S. Navy; res., Tatoosh, Wash.; U. S. Radio Station, Tatoosh Island, Wash.* A Aug 11, '97

SVENDSEN, MICHAEL, Operator, Marconi Wireless Telegraph Co., Marshall, Cal.* A Jan 5, '97

SWIGART, CHARLES C., Radio Telegrapher, U. S. Navy; res., Bremerton, Wash.; U. S. Naval Radio Station, Bremerton, Wash.* A Dec 17, '97

TABER, WM. T., Tester, Marconi Wireless Telegraph Co., Montclair, N. J.; res., 761 Bloomfield Ave., Montclair, N. J.* A Sept 3, '95

TALLMAN, FRANK G., Jr., Student, Cornell University, Ithaca, N. Y.; res., 1102 Broome St., Ithaca, N. Y.; Ithaca, N. Y.* A Aug 12, '93

TAUSSIG, CHAS. WM., Chemical Assistant, American Molasses Co.; res., 36 W. 84th St., New York City.* A Feb 4, '94

TAYLOR, JAMES B., Captain Coast Artillery Corps, U. S. Army, Fort Monroe, Va., Director, Coast Artillery School, Fort Monroe, Va. A April 8, '93

TERRELL, W. D., Radio Inspector, Department of Commerce, Washington, D. C.*; res., Livingstone Heights, Va., R. F. D. 1, Washington, D. C. A June 1, '95

THOMAS, ALFRED, Jr., Manager, Chicago Station, Marconi Wireless Telegraph Co., Congress Hotel, Chicago, Ill.; res., 2105 Clifton Park Ave., Chicago, Ill.* A Dec 30, '97

THOMPSON, EDWARD WILLIAM, Chief Electrician, U. S. Navy, Radio Station, Chelsea, Mass.*; res., 671 Beach St., Revere, Mass. A Oct 13, '95

*Denotes mailing address

†As of 1915

THOMPSON, JOHN HENRY, Radio Engineer, Department of Naval Services, Radiotelegraph Branch, Ottawa, Canada*; res., 107 Geoffrey St., Toronto, Ont., Canada. A Jan 5, 1916†

THOMPSON, VANCE, Student, Memphis University School; res., 27 Pasadena Place, Memphis, Tenn.* A April 22, 1914

HERNEY, THOMAS A., Radio Operator, Senior, Marconi Wireless Telegraph Co., Edison Bldg., New York City; res., 1911 Ritner St., Philadelphia, Pa.* A Oct 13, 1915

TODD, STEDMAN F., Student, University of California; res., 415 Hillside Court, Piedmont, Cal.* A Jan 20, 1915

TOWNSEND, PERCY J., Construction Engineer, Marconi Wireless Telegraph Co., East San Pedro, Cal.; res., 271 5th St., San Pedro, Cal.; Box 67, East San Pedro, Cal.* A Mar 10, 1915

TOWNSEND, T. LINCOLN, Vice-President, National Electric Supply Co., 1340 New York Ave., Washington, D. C.* A Feb 18, 1914

TRACON, HAROLD A., Appraisal Work, N. J. Neall; res., 39 Hamden St., Dorchester, Mass.* A Aug 12, 1914

TRENOR, ALBERT D., Engineer, Hammond Radio Research Laboratory, Gloucester, Mass.*; res., 116 Central Park West, New York City.* A April 1, 1914

TRIGER, RAYMOND, Student, College of the City of New York, New York City; res., 813 6th Ave., New York City.* A Jan 5, 1916†

TRILLING, DAVID MORRIS, Chief Electrician, U. S. Navy, Tucker, N. J.; res., 1125 Arcene Ave., Atlantic City, N. J.; U. S. Naval Radio Station, Tucker, N. J.* A Oct 14, 1915

TROGNER, ARTHUR M., Engineering Draftsman, Room 910, Metropolitan Schoolfield Bldg., N. E., Washington, D. C.* A April 1, 1914

TRUEDELL, KARL, Lieutenant, Signal Corps, U. S. Army; res., 25th St., New York City. A June 12, 1913

TURNER, H. M., Instructor, Electrical Engineering, University of Minnesota, Minneapolis, Minn.*; res., 719 Lake St., S. E., Minneapolis, Minn.* A May 6, 1914

USKA, CLARENCE D., Student, Trinity College, and Secretary, American Radio Relay League; res., 156 Oakland Terrace, Hartford, Conn.* A July 1, 1914

UNDERHILL, CHARLES R., Chief Electrical Engineer, Acme Wire Co., New Haven, Conn.; res., 81 Stanley St., New Haven, Conn.* A April 8, 1914

UPSON, HARRY E., Plant Department, New England Telephone & Telegraph Co., 45 Forest Ave., Portland, Me.; res., 24 Rosemont Ave., Woodford, Me. A July 16, 1913

VANDERPOEL, FLOYD L., Manufacturer of Radio Apparatus; res., Trichtfeld, Conn.; Bantam, Conn.* A Charter Member W.I.

VAN DYCK, ARTHUR F., Instructor in Electrical Engineering, Carnegie Institute of Technology, Pittsburgh, Pa.; res., 1137 Murray Hill Ave., Pittsburgh, Pa.* A Charter Member S.W.T.E.

VAN DYKE, KARL S., Student, Wesleyan University; res., 310 William St., Middletown, Conn.* A Nov 17, 1915

VAN HORN, JAY C., Secretary, Treasurer and Instructor, Philadelphia School of Wireless Telegraphy, Parkway Bldg., Philadelphia, Pa.; res., 5127 Arch St., Philadelphia, Pa.* A Oct 13, 1915

VAN NOSTRAND, WALTER, Jr., Clerk, U. S. Radio Service; res., Washington, D. C.; U. S. Radio Service, Department of Commerce, Bureau of Navigation, Washington, D. C.* A April 14, 1915

VAN OLINDA, OLIVER S., Electrical Supplies and Contracting; res., Vashon, King County, Wash.* A Feb 21, 1915

VOGEL, PHILIP J., Chief Radio Operator, American Hawaiian Steamship Co., 8 Bridge St., New York City; res., Palisade Blvd., Palisades Park, N. J.; American Hawaiian Steamship Co., Room 719, 8 Bridge St., New York City.* A Sept 9, 1914

WAGGONER, C. W., Professor of Physics, West Virginia University, Morgantown, W. Va.; res., 727 N. Front St., Morgantown, W. Va.* A May 22, 1914

WALTER, GEORGE J., Draftsman, Marconi Wireless Telegraph Co., 263 Broadway, New York City; res., 201 Norman St., Evergreen, I. I., N. Y.* A Oct 13, 1915

WALLIS, ARTHUR F., Operating and Research Departments, National Electrical Signaling Co., 67 35th St., Brooklyn, N. Y.* A June 4, 1913

*Denotes mailing address

†As of 1915

WARD, HAROLD FRASER, Radio Operator, Marconi Wireless Telegraph Co., New York City; res., 913 E. 12th St., Brooklyn, N. Y.* A Dec. 15, 1915

WARD, J. HERBERT, Teacher, Head of Science Department, Classical High School, Providence, R. I.; res., 85 Niagara St., Providence, R. I.* A Nov. 17, 1915

WARD, THOMAS GEORGE, Radio Telegraphist, Russian American Line; res., Bassett Hotel, Southampton, England.* A May 12, 1915

WASHINGTON, BOWDEN, Radio Engineer, Craft Laboratory, Harvard University, Cambridge, Mass.; res., 11 Everett St., Cambridge, Mass.* A April 1, 1914

WATKINS, JAMES O., Engineer, Federal Telegraph Co., Room 810 Hobart Bldg., San Francisco, Cal.*; res., 971 Mission St., San Francisco, Cal.* A July 8, 1914

WATROUS, RALPH C., Real Estate Broker, 49 Westminster St.; res., 20 Duman Place, Providence, R. I.* A Oct. 15, 1915

WATSON, ARTHUR EUGENE, Assistant Professor of Electrical Engineering, Brown University, Providence, R. I.; res., 30 Congdon St., Providence, R. I.* A Oct. 13, 1915

WATSON, CLIFTON H., Radio Engineer, Condit Plant, Northwestern Electric Co., Underwood, Wash.* A Aug. 26, 1914

WATTS, F. J., Radio Engineer, University of Michigan, Ann Arbor, Mich.; res., 1755 Mansfield St., Port Huron, Mich.* A May 6, 1914

WATTS, JOSEPH H., Chief Electrician, U. S. Navy; res., 7 A. N. P., "X"; Guatemala Radio Station, Guatemala City, C. A.* A Sept. 9, 1914

WAY, DONALD D., Student, Massachusetts Institute of Technology, Boston, Mass.; res., 21 Claremont Ave., New York City; 291 Harvard St., Brookline, Mass.* A Sept. 9, 1914

WEINBERGER, JULIUS, Assistant, Radio-Telegraphic Laboratory, U. S. Bureau of Standards, Washington, D. C.*; res., 214 E. 4th St., New York City.* A Feb. 14, 1915

WEISS, JACOB, Organist, Radio Experimenter; res., 5 Adams St., Port Washington, L. I., N. Y.* A July 4, 1914

WESCOE, MORRIS L., Testing Department, American Telegraph & Telephone Co., New York City; res., 2549 Decatur Ave., New York City.* A Feb. 4, 1915

WHEELER, WALTER GRANT, Radio Electrician, U. S. Navy, Boston Navy Yard; res., 21 Haviland St., Boston, Mass.* A April 21, 1915

WHITE, RICHARD HERBERT, Engineer in charge, Marconi Wireless Telegraph Co.; res., Hilderstone, St. Peters, Broadstairs, England; Marconi Works, Chelmsford, England.* A April 21, 1915

WHITE, WARREN E., Electrical Draftsman, U. S. Navy, Navy Yard, Puget Sound; res., Manette, Wash.* A Nov. 17, 1915

WHITE, WILLIAM C., Assistant in Research Laboratory, General Electric Co., Schenectady, N. Y.; res., 32 Rugby Road, Schenectady, N. Y.* A Mar. 31, 1915

WHITED, EVEREST A., Chief Electrician (Radio), U. S. Navy; U. S. Naval Radio Station, Key West, Fla.* A Feb. 10, 1915

WHITING, DONALD F., Engineering Department, Marconi Wireless Telegraph Co.; res., 10 Berwyn St., Roselle Park, N. J.* A July 28, 1915

WIEGAND, LEWIS F., Radio Engineer, C. B. & R. R. R.; res., 809 Wells St., Apartment 6, Chicago, Ill.* A Dec. 16, 1914

WILKINS, GEORGE COURT, Radio Operator; res., 219 W. 4th St., Marysville, O.* A Oct. 13, 1915

WILLIAMS, HUGH E., Radio Operator, Marconi Wireless Telegraph Co., Box 491, Eureka, Cal.*; res., Belmont, Cal.* A Jan. 5, 1916

WILLIS, SIDNEY JOHN, Assistant Engineer, Marconi Wireless Telegraph Co., Ltd.; res., 41 Broomfield Road, Chelmsford, England.* A July 1, 1914

WILSON, RUFUS E., Electrician, Radio, Naval Auxiliary Service, U. S. Navy; res., Expo, Norfolk County, Va.; U. S. S. "Mars," care of Postmaster, New York.* A Jan. 27, 1915

WILTSE, GEORGE V., First Class Operator, Alaska Steamship Co., Pier 2, Seattle, Wash.; res., 7006 6th Ave., N. E., Seattle, Wash.* A Aug. 11, 1915

WINDSOR, CHARLES CLIFFORD, Lieutenant, U. S. Navy; res., care of Navy Department, Washington, D. C.; Radio Station, Sayville, L. I., N. Y.* A Sept. 22, 1915

*Denotes mailing address

As of 1915

WINSOR, THOS. W., Expert Electrical Aid, Navy Yard, Puget Sound; A Dec. 16, 1914
res., 1218 Washington Ave., Bremerton, Wash.*

WINTERBOTTOM, WILLIAM A., Commercial Manager, Marconi Telegraph Cable Co., 42 Broad St., New York City*; res., 5122 4th Ave., Brooklyn, N. Y.* A Mar. 24, 1915

WISHAAR, WM. P., Second Lieutenant, U. S. Coast Guard, Coast Guard, Wilmington, Del.; care of U. S. Coast Guard "Seminole," A Sept. 9, 1914

WITMYER, MARTIN M., Peerless Motor Car Co., 660 Beacon St., Boston, Mass.; res., 169 Lexington St., Auburndale, Mass.* A April 21, 1915

WOLFE, A. R., Chief Radio Electrician, U. S. Navy, Naval Radio Station, Beaufort, N. C.; res., Ann and Cravin Sts., Beaufort, N. C.* A Sept. 3, 1913

WOODCOCK, NORMAN A., Radio Operator; U. S. S. "Rescue," Grocers A July 8, 1914

WOODHILL, S. TRUBEE, Tester, Marconi Wireless Telegraph Co., A Jan. 20, 1915
of America; res., 10 Locust St., Roselle Park, N. J.*

WOODFORD, RICHARD P., Radio Operator, Marconi Wireless Telegraph Co., Marshall, Cal.*; res., 1118 41st St., Brooklyn, N. Y.* A Dec. 15, 1915

WOODROW, WILLIAM, Electrician, United Electric Light & Power Co., New York City; res., 224 W. 140th St., New York City.* A Jan. 20, 1915

WOODWARD, RAYMOND W., Laboratory Assistant, Bureau of Standards, Washington, D. C.; res., 2917 13th St., N. W., Washington, D. C.* A May 22, 1914

WOODWORTH, E. B., Lieutenant, U. S. Navy, U. S. S. "Cleveland"; care of Postmaster, San Francisco, Cal.; U. S. S. "Cleveland." A Feb. 14, 1915

WORRAILL, JOSEPH ALLEN, Radio Operator, Marconi Wireless Telegraph Co.; res., 163 Logan St., Brooklyn, N. Y.* A April 1, 1914

WRIGHT, GEO. B., U. S. Navy; care of Postmaster, San Francisco, U. S. S. "Denver." A Mar. 12, 1915

WRIGHT, MARSHALL C., Chief Operator, Radio Station, New York Herald; res., 569 West End Ave., New York City.* A Dec. 15, 1915

WYBLE, J. F., Construction Engineer, Marconi Wireless Telegraph Co., Baltimore, Md.; res., 2743 Harlem Ave., Baltimore, Md.* A May 22, 1914

YOUNG, ALBERT L., Student, Iowa State College; res., 141 Highland Ave., Ames, Iowa.* A April 21, 1915

YOUNG, DAVID ROLAND, Chief Radio Electrician, U. S. Navy; U. S. S. "Cummings," care of Postmaster, New York.* A Mar. 24, 1915

ZAMANS, HAROLD R., General Counsel, Attorney at Law, 12 Broadway, New York City.* A June 3, 1912

ZIMMERMAN, HERMAN, Jr., Radio Operator, Tropical Radio Telegraph Co., New York City; res., 346 E. 139th St., New York City.* A July 1, 1914

ZINSZER, HARVEY A., Telephone Inspector, Consolidated Telegraph Co.; res., 920 S. 6th St., Allentown, Pa.* A April 22, 1914

ZWICKER, ASHLY C., Installer, Clapp, Eastham Co., Boston, Mass.; res., 6 Olive Ave., Somerville, Mass.* A Nov. 4, 1912

*Denotes mailing address

LIST OF JUNIORS

Listed Alphabetically

- ARLINGTON, ARTHUR P., Radio Operator, C. A. C., U. S. Army; J Mar. 23, 1915
Fort Crockett Radio Station, Galveston, Tex.*
- ASTER, ALVIN K., Student, University of California; res., 910 Chestnut J
St., Alameda, Cal.*
- AUSTRIAN, RALPH B., Accountant, Harris Suspenders Co., 604 Broad- J Nov. 1, 1915
way, New York City; res., 19 St. Nicholas Terrace, New York
City.*
- AZOY, GEOFFREY V., Student, Carteret Academy, Orange, N. J.; J April 13, 1915
res., 28 South Maple Ave., East Orange, N. J.*
- BAILEY, CECIL, Radio Operator, Marconi Wireless Telegraph Co., J Dec. 1, 1915
Merchants Exchange Building, San Francisco, Cal.; res., R. F. D.,
No. 18, Box 141, Los Altos, Cal.
- BEALS, CHARLES W., Superintendent of Radio Service, Detroit & J Sept. 8, 1915
Cleveland Navigation Co.; res., 291 Northwestern Ave., Detroit,
Mich.*
- BENNETT, LAWRENCE S., Student, Everett High School; res., 2 J Dec. 30, 1915
Lawrence St., Everett, Mass.*
- BILGER, ANSON S., Secretary, Paymaster and Time-keeper, Oakland J Jan. 1, 1916
Paving Co., Oakland, Cal.; res., 407 Vernon St., Oakland, Cal.*
- BOLTON, HAROLD, Student; res., 1300 Judah St., San Francisco, Cal.* J Sept. 8, 1915
- BOURNE, R. BARDEAN, Student, Rensselaer Polytechnic Institute, J Dec. 16, 1915
Troy, N. Y.; res., 2209 16th St., Troy, N. Y.*
- BRAY, J. HUDSON, Student; res., South Lincoln, Mass.* J Dec. 15, 1915
- BRENNER, ALEXANDER, Electrician, Second Class, U. S. S. "Seneca," J Dec. 15, 1915
C. G.; res., 993 Westchester Ave., New York City; U. S. S. "Seneca,"
C. G., care of Postmaster, New York.
- BURCKETT, MAXWELL K., Radio Engineer, American Insurance J Nov. 11, 1915
Building, 70 Park Place, Newark, N. J.; res., 30 Fairfield Ave.,
Montclair, N. J.
- CASON, PAUL BYRON, Radio Operator; res., 112 N. Lowne Ave., J Oct. 11, 1915
Pomona, Cal.*
- COHEN, HYMAN E., Chief Radio Operator, S. S. "Gulfport," Marconi J Dec. 16, 1915
Wireless Telegraph Co., Marconi Station, Port Arthur; res., 309
E. 8th St., New York City; care of Marconi Wireless Telegraph Co.,
29 Cliff St., New York City.*
- DEAN, SAMUEL WINTHROP, Radio Operator, res., 4 Elliot Road, J Nov. 11, 1915
Lexington, Mass.*
- DICKEY, EDWARD T., Student, College of the City of New York; res., J Jan. 20, 1916
4649 Amsterdam Ave., New York City.*
- DIEHL, FRED, Student, Marconi Wireless Telegraph Co.; res., 120 J Feb. 13, 1916
Claridge St., San Francisco, Cal.*
- DREHER, CARL, Student, College of the City of New York; res., 1018 J Sept. 22, 1915
Forest Ave., New York City.*
- DOSS, BERTIE DELBERT, Electrician, Radio, Third Class, U. S. Navy; J Nov. 17, 1915
res., Ringgold, Tex.; U. S. S. "New Hampshire," care of Postmaster,
New York.*
- ECHLIN, JOHN E., Radio Operator, Marconi Wireless Telegraph Co., J Oct. 14, 1915
San Francisco, Cal.; res., 460 Vernon St., Oakland, Cal.*
- FARRINGTON, BRUCE BARTON, Student, Marconi Wireless Tele- J Feb. 24, 1916
graph Co.; res., 1117 Morton St., Alameda, Cal.
- FENNER, PAUL R., Student, University of California; res., 1338 J May 20, 1915
Masonic Ave., San Francisco, Cal.*

*Denotes mailing address

- FUJIAN, WILLIAM SHANNON, Assistant Electrician, Ferracute J Nov. 17, 1915
Machine Co., Bridgeton, N. J.; res., 313 East Commerce St.,
Bridgeton, N. J.*
- FOGG, ROBERT STEVENS, Automobile Dealer, Radio Instructor and J Sept. 8, 1915
Designer, Winchester Auto Co., Winchester, Mass.; res., High-
land Ave., Winchester, Mass.
- FRID, JOSEPH DAVID, Student, College of the City of New York, J Jan. 13, 1916
New York City; res., 131 E. 111st St., Bronx, New York City.*
- GOEBEL, EUGENE S., Amateur; res., 1601 Columbia Ave., Philadel- J Oct. 13, 1915
phia, Pa.*
- GRAHAM, LLOYD EDGAR, Student, Leland Stanford, Jr. University, J Dec. 15, 1915
Stanford, Cal.; res., 930 Scott St., Palo Alto, Cal.*
- GREIG, JOHN WHITTIER, Student, University of Washington; res., J Dec. 15, 1915
707 11th Ave. S., Seattle, Wash.; 5011 17th Ave. N. E., Seattle,
Wash.*
- HADDEN, WESTON, Student, Polytechnic Preparatory School; res., J Dec. 15, 1915
1716 Albemarle Road, Brooklyn, N. Y.*
- HANSON, MARION G., Student, Polytechnic College of Engineering, J May 26, 1915
Oakland, Cal.; res., 1220 13th Ave., Oakland, Cal.*
- HAYES, RALPH SEVERSON, Student, Dartmouth College, 17 New J Oct. 13, 1915
Hampshire Hall, Hanover, N. H.; res., 7139 Devon St., Mount
Ave., Philadelphia, Pa.
- HAYWARD, EARL BENJAMIN, Radio Operator, Marconi Wireless J Nov. 17, 1915
Telegraph Co., Port Arthur, Tex.; res., 113 Van Auden St., Au-
burn, N. Y.
- HOLNELL, PAUL CHRISTOPHER, Student, High School; res., P. O. J Mar. 31, 1915
Box 146, Babylon, L. I., New York.*
- HOOPES, THOMAS TEMPLE, Student, Harvard University; res., J Dec. 15, 1915
118 High St., Newburyport, Mass.*
- HYDE, GEORGE G., Student, Stevens Institute of Technology, Ho- J June 16, 1915
boken, N. J.; res., Roslyn, L. I., N. Y.*
- KAYSER, HERBERT, Student, College of the City of New York; res., J May 12, 1915
11 Convent Ave., New York City.*
- KING, CARL, Student, University of California; res., Wing Point, Wms- J Sept. 22, 1915
Tex, Wash.; 2126 Virginia St., Berkeley, Cal.*
- KOHMEIER, GEORGE THEIL, Salesman, 1011 3rd Ave., New York J May 12, 1915
City; res., 202 E. 60th St., New York City.*
- KOTTER, CARL FREDERIC, Student of Electrical Engineering, J Nov. 17, 1915
University of Wisconsin; res., 1035 Second St., Milwaukee, Wis.;
1019 University Ave., Madison, Wis.*
- LEE, EMERY H. L., Student, University of Washington; res., 1625 E. J Feb. 10, 1915
Madison St., Seattle, Wash.*
- MAN, SAMUEL, Student, Stevens Institute; res., 120 W. 1th St., J Jan. 20, 1915
Plainfield, N. J.*
- MANNING, PAUL HALLOCK, Radio Operator, National Electric Sig- J Sept. 22, 1915
naling Co.; res., 92 Kaplan Ave., Jamaica, N. Y.; Str. "Common-
wealth," Pier 14, N. R., New York City.*
- MARKHAM, LESTER M., Laboratory Work, Radio Apparatus Co. of J Sept. 8, 1915
America, 1003 Parkway Building, Philadelphia, Pa.; res., 5108
Baltimore Ave., Philadelphia, Pa.*
- MCGOWAN, DUDLEY BROOKE, Student in Electrical Engineering, J Oct. 13, 1915
University of California, Berkeley, Cal.; res., 1247 47th Ave., San
Francisco, Cal.*
- MILLER, KELLY, Jr., Experimenter; res., 130 College St., N. W., J Jan. 20, 1915
Washington, D. C.*
- MILES, PETER JAMES, Student, Drexel Institute, Philadelphia, Pa.; J Oct. 13, 1915
res., 5739 Baltimore Ave., Philadelphia, Pa.*
- MORRIS, ROBERT T., Student, Stevens Institute of Technology, Ho- J Nov. 11, 1914
boken, N. J.; res., 119 W. 88th St., New York City.*
- MUNROE, HENRY TAYLOR, Engineering Department, American Radio J Aug. 11, 1915
Research Corporation, Tufts College, Medford, Mass.; res., 38
Beacon St., Everett, Mass.*
- MURPHY, DUDLEY BOWELS, Student, College of Engineering; res., J Feb. 24, 1915
76 Highland Ave., Winchester, Mass.; 1139 Lura St., Pasadena,
Cal.*

*Denotes mailing address

NICKERSON, EDGAR WATSON, Student, Boston Y. M. C. A., Co-operative Engineering School; res., 16 Atlantic Ave., Beverly, Mass.* J Oct. 13, 1915

NORTON, EDWARD L., Student, High School; res., 26 Grove St., Rockland, Me.* J Oct. 13, 1915

PERRY, IRVING DAVIDSON, Switchboard Helper, Public Service Electric Co.; res., 68 N. Parkway, East Orange, N. J.* J Dec. 15, 1915

PRESCOTT, HENRY B., Student, Phillips Exeter Academy; res., Main St., Station, Franklin, N. H.* J Jan. 15, 1915

REESE, MERLE M., Private Research Work; res., 298 S. 12th St., San Jose, Cal.* J Nov. 11, 1914

REILLY, LEO T. C., Student, Philadelphia School of Wireless Telegraphy, Philadelphia, Pa.; res., 3859 N. 7th St., Philadelphia, Pa.* J Jan. 27, 1915

RICE, STANLEY, Student, University of Pennsylvania; res., 1725 N. 42nd St., Philadelphia, Pa.* J May 12, 1915

ROBERTS, HAYDN P., Student, Case School of Applied Science, Cleveland, O.; res., 11215 Clifton Boulevard, Cleveland, O.* J Jan. 5, 1916

RYAN, FRANCIS M., Student, University of Washington; res., 4524 17th Ave., N. E., Seattle, Wash.* J Dec. 16, 1914

RYBERG, ROY EMERY, Student; res., 525 Federal Ave., Seattle, Wash.* J Dec. 15, 1915

SANDALLS, GEORGE T., Jr., Student, Columbia University, New York City; res., 2028 Creston Ave., New York City.* J Mar. 24, 1915

SOMMER, EMITT H., Assistant Engineer, Edison Lamp Works, Harrison, N. J.; res., 317 Clifton Ave., Newark, N. J.* J Nov. 11, 1914

SPARROW, WILLIAM THOMAS, Wireless Instrument Co., 2423 1st Ave., S., Seattle, Wash.; res., 932 W. 63rd St., Seattle, Wash.* J Aug. 11, 1915

TERRY, HALSTEAD COLEMAN, Student, Dodge Institute of Telegraphy, Valparaiso, Ind.*; res., Lowell, Wis. J Dec. 15, 1915

TOLMIE, J. R., Student, University of Washington; res., 1213 Columbia St., Seattle, Wash.* J Nov. 17, 1915

TUNSTALL, ALBERT REESE, Electrician, Coeffield Motor Washer Co., Pittsburgh, Pa.; res., 7944 Tacoma St., Pittsburgh, Pa.* J May 26, 1915

VICK, CLIFFORD W., Student, High School; res., 218 W. 15th Ave., Houston, Tex.* J Nov. 17, 1915

VLIET, ELVIN C., Student and Secretary and Treasurer of "Electric Club," Shortridge High School; res., 2028 Broadway, Indianapolis, Ind.* J Dec. 16, 1914

WALKER, WINTER BRISLEY, Testing Department, Marconi Wireless Telegraph Co., Aldene, N. J.; res., 26 Nepperhan Road, Tarrytown, N. Y.; 134 Second Ave., Roselle, N. J.* J Dec. 15, 1915

WICKERSHAM, HARRY HORTON, Student, University of California, Berkeley, Cal.; res., 149 San Carlos Ave., San Francisco, Cal.* J Oct. 13, 1915

WILLIAMS, CHARLES E., Draftsman; res., 8326 13th Ave., N. W., Seattle, Wash.* J Dec. 15, 1915

WING, WILLIS KINGSLEY, Student, Scott High School; res., 938 Grand Ave., Toledo, O.* J Dec. 15, 1915

WINSER, LINDLEY, Radio Operator, Marconi Wireless Telegraph Co., San Francisco, Cal.; res., 200 22nd St., Bakersfield, Cal.* J Mar. 10, 1915

*Denotes mailing address

†As of 1915

Mail addressed to the following members of the Institute, has been returned as "undelivered." The Secretary will appreciate prompt information as to the present addresses of those listed below:

AFFEL, HERMAN A., Research Assistant in Electrical Engineering, Institute of Technology; res., 5 Bigelow St., Cambridge, Mass.* M Oct. 11, 1914

BEST, PAUL T., Chief Electrician, (Radio), U. S. Navy; U. S. S. "Constellation," Newport, R. I.* M Oct. 15, 1913

BULLOCK, GILBERT DONALD, Assistant Chief Electrician, Peoples Light & Power Co.; res., P. O. Box No. 41, Gallup, New Mexico.* M Mar. 24, 1915

BURKHEAD, C. H., Student, University of North Carolina, Chapel Hill, N. C.*; res., Chapel Hill, N. C. A Feb. 4, 1914
M Oct. 11, 1914

CHATFIELD, WORTH MacKNIGHT, Instructor, Chatfield School of Radio Telegraphy, Ann Arbor, Mich.; res., 836 E. University Ave., Ann Arbor, Mich.* A July 1, 1914

CHRISTENSON, OSCAR Electrician, Marconi Wireless Telegraph Co. of America; res., Kahuku, Oahu, T. H.; Kahuku, Oahu, T. H., care Marconi.* M Jan. 27, 1915

ENGLER, JOHN, Engineer, Gesellschaft für Drahtlose Telegraphie, Berlin, Germany; 628 Van Nuys Building, Los Angeles, Cal.* M Nov. 4, 1912

FITLER, EUGENE B., Jr., Clerk, Electrical Products Co.; res., 40 W. 119th St., New York City.* M May 22, 1914

HANCE, S. W., Superintendent Radio Service, Vaccaro Bros. & Co., New Orleans, La.* M April 1, 1914

HARRIS, WILLIAM J., Radio Operator, Marconi Wireless Telegraph Co.; res., 532 N. 61th St., Philadelphia, Pa.* M July 8, 1914

HODGER, CHARLES, Inspector, Russian American Line, Liban, Russia; res., 471-41st St., Brooklyn, N. Y.* M April 1, 1914

JOHNSON, GEO. H., Electrical Helper, A. M. Jones, Berkeley, Cal.; res., 6205 E. 11th St., Oakland, Cal.* M July 1, 1914

KEYTE, CHARLES R., Engineer-in-Charge, Government; Ocean Island Radio Station, Gilbert & Ellice Protectorate.* A Feb. 18, 1914
M Jan. 20, 1915

PICHON, PAUL, Patent Expert and Oberingenieur, Telefunken Co., Berlin, Germany; res., Lichtenrade, Germany.* M Jan. 7, 1914

RECKSICK, WM. H., Jr., Radio Operator, U. S. S. "Minnesota," U. S. Navy; res., 1222 C St., S. W., Washington, D. C.* M Aug. 12, 1914

SCHELL, JOHN E., Chief Radio Electrician, Navy Yard, N. Y.; res., 190 Carlton Ave., Brooklyn, N. Y.* M July 1, 1914

SKOVMAND, OTTO, Engineer, Poulsen System; res., Christiansgade 10, Copenhagen, Denmark.* M Oct. 14, 1914

SPICER, EARL EUGENE, Electrician and Radio Operator, U. S. Coast Defence Service; res., 913 Eighth Ave., Seattle, Wash.* M Aug. 26, 1914

*Denotes mailing address

THE INSTITUTE OF RADIO ENGINEERS
(Inc.)

GEOGRAPHICAL DISTRIBUTION OF
MEMBERSHIP

January 1, 1916

UNITED STATES:	Fellows	Members	Associates	Juniors
Arizona	..	..	1	..
California	1	8	92	16
Connecticut	..	..	15	..
Delaware	..	..	1	..
District of Columbia	3	8	32	1
Florida	..	..	7	..
Idaho	..	..	1	..
Illinois	..	..	11	..
Indiana	..	..	5	2
Kansas	1	1	1	..
Louisiana	..	3	10	..
Maine	..	..	3	1
Maryland	..	..	15	..
Massachusetts	3	9	60	8
Michigan	..	1	4	1
Minnesota	..	..	6	..
Missouri	..	1	6	..
Nebraska	..	..	1	..
New Hampshire	..	..	1	2
New Jersey	2	2	50	7
New York	13	41	200	16
North and South Carolina ..	..	..	7	..
North and South Dakota ..	..	1	4	..
Ohio	..	1	7	2
Oklahoma	..	..	1	..
Oregon	..	..	6	..
Pennsylvania	3	1	43	6
Rhode Island	..	1	13	..
Tennessee	..	..	2	..
Texas	..	..	11	3
Utah	..	..	1	..
Virginia	..	4	16	..
West Virginia	..	..	2	..
Vermont	..	..	1	..
Washington	2	2	51	7
Wisconsin	..	..	4	1
Totals	28	84	691	73

	Fellows	Members	Associates	Juni
ALASKA	..	..	1	..
CANADA	1	7	12	..
PANAMA	..	..	4	..
HAWAII	..	..	13	..
INDIA	..	1	8	..
PHILIPPINE ISLANDS	..	2	1	..
PORTO RICO	..	..	1	..
CENTRAL AMERICA	..	..	1	..
CHILE	..	1	..	..
BRITISH GUIANA	..	1	..	..
CHINA	..	..	1	..
DENMARK	3	..	1	..
ENGLAND	5	9	24	..
GERMANY	2	1	..	..
HOLLAND	..	..	2	..
IRELAND	..	..	2	..
JAPAN	..	2	1	..
RUSSIA	..	..	1	..
WEST AFRICA	..	..	1	..
Totals	39	108	764	73

Total Membership 984

	Fellows	Members	Associates	Juniors
ALASKA	..	..	1	..
CANADA	1	7	12	..
PANAMA	..	..	4	..
HAWAII	..	..	13	..
INDIA	..	1	..	..
PHILIPPINE ISLANDS	..	2	8	..
PORTO RICO	..	..	1	..
CENTRAL AMERICA	..	..	1	..
CHILE	..	1	..	..
BRITISH GUIANA	..	1	..	..
CHINA	..	..	1	..
DENMARK	3	..	1	..
ENGLAND	5	9	24	..
GERMANY	2	1	..	..
HOLLAND	..	..	2	..
IRELAND	..	2	1	..
JAPAN	..	..	1	..
RUSSIA	..	..	1	..
WEST AFRICA	..	..	1	..
Totals	39	108	764	73

Total Membership 984