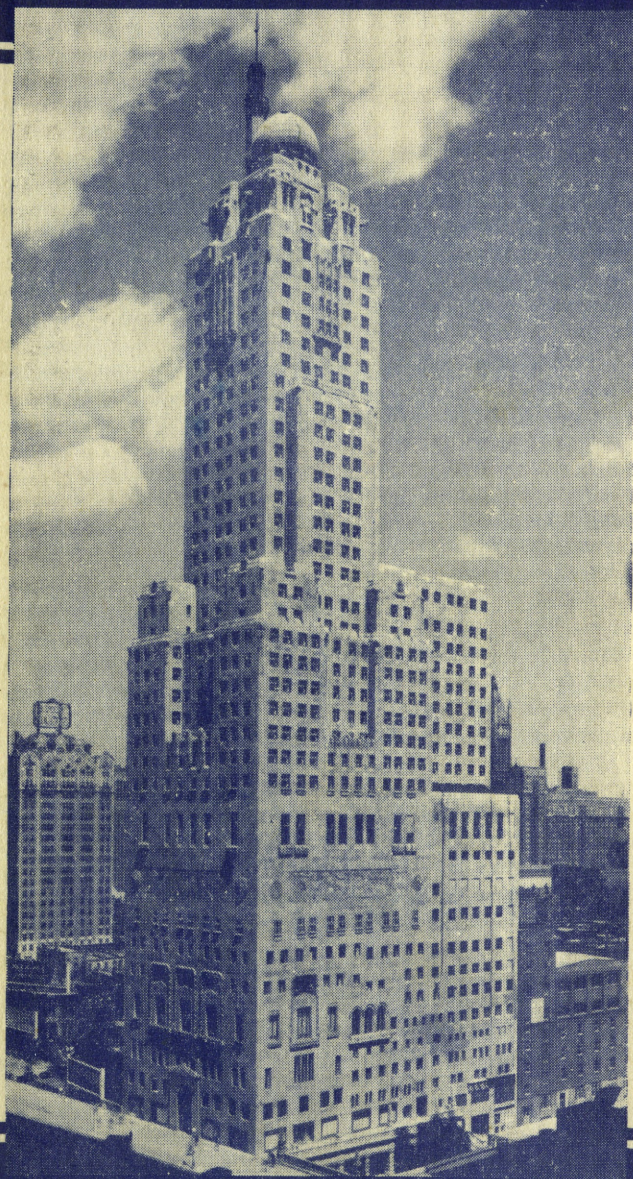


WORLD WIDE RADIO AMATEUR CONVENTION PROGRAM



MEDINAH
MICHIGAN AVENUE
CLUB
505 N. Michigan Ave.

Chicago-U.S.A. August 3-4-5-1933

1921 - 1933

**CHI-RAD EXTENDS GREETINGS
TO ALL THE AMATEURS
WHO ARE ATTENDING
THIS CONVENTION**

For twelve years CHI-RAD has been in the amateur game in a commercial way and has enjoyed the patronage and friendship of numerous members of the amateur fraternity. CHI-RAD wants the amateurs and other short wave fans who have been customers of CHI-RAD to know that their business has been greatly valued.

In return for the trust imposed in us for so many years by so many amateurs CHI-RAD has always done its utmost even to the point of loss to CHI-RAD to keep inferior material of any kind out of its stock. CHI-RAD has consistently persisted in telling the absolute truth about its merchandise.

We solicit continuation of your patronage and we hope to serve you even better than in the past. We can furnish you anything that you need in any standard line of high grade material.

We call particular attention to the fact that we were the first in the game and we hope to remain in it a long time.

CHICAGO RADIO APP. CO.

415 SOUTH DEARBORN STREET, CHICAGO
(Near Van Buren)

Phone HARrison 2276

SOUVENIR PROGRAM

World Wide Radio Amateur Convention

MEDINAH MICHIGAN AVENUE CLUB

505 North Michigan Avenue

Chicago, U. S. A.



AUGUST 3-4-5

1933

WORLD RADIO CONVENTION



W. E. SCHWEITZER
W9AAW

Born in Chicago, Ill., Feb. 11, 1901. Graduate of Armour Inst. of Tech. with B.S.M.E. degree. Mr. Schweitzer was bitten by the bug in 1912 and has been an active amateur ever since. Past president Chicago Radio Traffic Assn., past A.R.R.L. assistant division manager Central Division, and later the first Illinois S.C.M. Chairman second and third national A.R.R.L. conventions. "Bill" is engaged in the general contracting business and has another hobby besides radio—model airplanes.

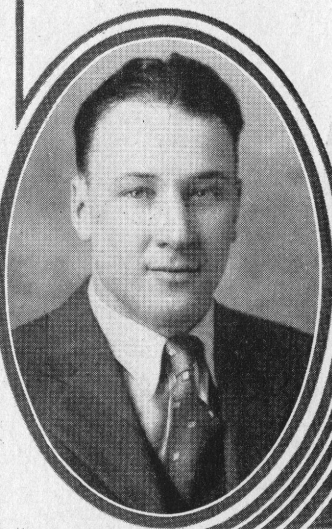
Chairman Convention Committee.

A. C. AGAZIN
W9CN

Born in Denver, Colo., Jan. 9, 1904. Educated at Northwestern University. Became interested in radio in 1925 starting out with a "kitchen cupboard" transmitter and has been very active in all phases of amateur radio ever since. Particularly interested at present time in 75, 20 and 5 meter radiophone work. Member Chicago Nines Club, also member Naval Reserve. A.R.R.L. official relay station appointment 1927.

Mr. Agazin's present connection is with the Harrison Wholesale Company, Chicago.

In charge of Code Speed Contests.

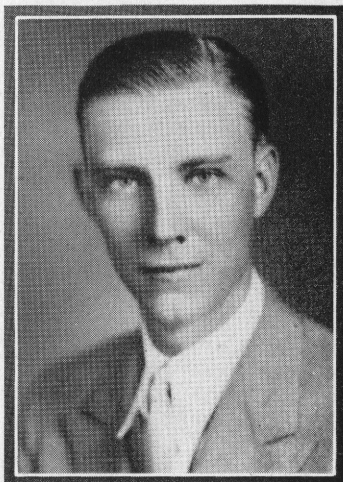


The WORLD-WIDE RADIO AMATEUR CONVENTION COMMITTEE in behalf of Chicago amateurs deeply welcomes every delegate with the hope that the friendships formed and the knowledge gained, will bring us together more solidly than ever before. The aim of the Convention Committee has been to give you a convention heaped full

WIDE AMATEUR COMMITTEE

M. L. POTTER W9FQU

Born in Chicago, Ill., April 23, 1901. Educated St. Johns Military Academy and Purdue University, the latter with a B.S.E.E. degree. 1929 to date, advertising manager Vortex Cup Company, Chicago. An "Old-Timer" dating back to pre-war (9ANI) days. 9ABL (1919-1922); 9DMI (1928-1930); W9FQU (1930 to date). Very active with 3.9-14 and 56 megacycle phone at present. In charge of speakers, prizes, and program for the Convention.



F. P. WALLACE W9CRT

Born in Chicago, Aug. 23, 1898. Entered amateur radio 1912, later on having the following calls—6VV—8ANA—W8UU. Operator on S. S. Congress plying Pacific ports. Joined Navy 1915 as radio operator in Pacific Fleet. Served as operator in World War on Atlantic, also instructor Naval Radio School Harvard University. Entered broadcasting as engineer 1921 at WAHL, later managing station WABM. Joined engineering staff at WWJ Detroit transferring to program department two years later. Five years later Mr. Wallace joined the program department at WMAQ, later becoming a member of announcing staff at N.B.C. and still serving in that capacity.

Responsible for Convention Publicity.

of entertainment—both technical and social—the like of which has never been equalled in the history of amateur radio. And if, after you go home, you feel that this big event has been all we have said of it and you say to yourself, "I have had one of the best times in my life," the Convention Committee will then have accomplished its purpose.

WELCOME RADIO AMATEURS

A dream has come true—the WORLD-WIDE RADIO AMATEUR CONVENTION is an actuality—and we welcome you as a delegate to this greatest of all conventions in amateur history.

Three times before Chicago has been host to national amateur radio conventions and now with its fourth—a real world-wide event, with amateurs coming from all four corners of the globe—a dream of many years has come true.

You and hundreds of other delegates in the United States and many foreign countries will go home with that “grand and glorious feelin’” of new friendships made, renewal of old ties, and the meeting of DX amateurs with whom you have contacted, and the conviction that there can be only one answer to the question, “Is amateur radio worth while?” —“Yes.”

Think how amateur radio has grown since the pre-war spark days of 1914 when DX meant twenty miles. There were only a few hundred of us then, mostly centered in and around the larger cities. We thought and acted as individuals. We had our little clubs and sometimes met an amateur from another state to learn what the other fellows were doing in other parts of the country. Our problems, legislative questions, friendships, community spirit, and technical knowledge were then in their infancy and few foresaw we would some day approach the fifty thousand mark where we are at the present time.

Do you realize why amateur radio is a solid, healthy institution recognized as a tangible asset by the government and citizens of most countries? Do you know why we have weathered all manner of trouble and discouragements? It is because we have grown out of our own volition and love of the game; no one has forced us into radio. A small five watt or a one kilowatt transmitter—it makes no difference—is a glowing inducement to all.

Many who attend this great WORLD-WIDE RADIO AMATEUR CONVENTION may be broadcast listeners or newcomers in the amateur game without the background of tradition and experience. But for those it may be said that the object which brings us together—whether amateur, broadcast listener, or experimenter—is identical—a bona fide interest in amateur radio and a desire to be helpful towards a common cause.

RECEPTION COMMITTEE

L. J. SMACH—W9CYD
F. J. HINDS—W9APY
J. W. KRUSE—W9DYB
G. E. DAMMANN—W9JO
E. L. RUSSELL—W9HBX
J. E. WILCOX—W9DDE
P. J. SNOPOKO—W9DWM

MRS. L. W. MIDA—W9LW
C. F. SCHULTZ—W9CSB
MRS. A. C. AGAZIN
MRS. F. P. WALLACE
MRS. M. L. POTTER
MRS. W. E. SCHWEITZER
L. LAMACHE

R. C. SCHWEITZER

GENERAL INFORMATION

Registration Fee

Registration fee for the entire Convention is \$4.50. All the Convention costs including entertainment must be paid from this fund.

Each guest should register promptly and secure the official Convention badge which admits the bearer to Convention meetings and entertainment functions. Prompt registration facilitates the delivery of telegrams and mail sent to delegates in care of the Convention.

The Convention registration booth is located on the eighth floor of the Medinah Athletic Club.

Souvenir Ticket to "A Century of Progress"

Each delegate will receive at the time of registering, a souvenir ticket to the World's Fair "A Century of Progress," good for one general admission and for admission to Fort Dearborn, a concession inside the Fair Grounds. The entire afternoon of the first day of the Convention, Thursday, August 3, has been set aside for all delegates to attend the World's Fair. It is earnestly suggested that the ticket be used at that time or after the Convention is over, for going any other time during the Convention would cause one to miss some of the valuable technical sessions, all of which will be addressed by world-famous amateurs and engineers.

Hollywood

(See page 38.)

Information

A general Convention information booth is located in the foyer on the eighth floor of the Medinah Michigan Avenue Club. Do not hesitate to ask for any information you desire.

Ladies

Headquarters for ladies and information pertaining to entertainment for them other than the Convention may be obtained direct from the information booth.

"Old-Timers Get Together" Dinner

For those considering themselves Old-Timers in the amateur game there will be a special dinner (Dutch) at 6:30 P. M. Friday, August 4, in the Minaret Room, tenth floor of the Medinah Michigan Avenue Club. This promises to be a real, honest-to-goodness gathering of amateurs who were active prior to 1925 and all those qualified are urged to attend. Price per plate will be \$2.00, which is in addition to the regular \$4.50 registration fee.

GENERAL INFORMATION

(Continued)

Hotel Accommodations

After registering arrange for your room at the Club accommodations desk at the Convention headquarters on the eighth floor. Special rates during the Convention are as follows:

Single room	\$3.00 up
Double room	\$5.00 up
Three per room	\$6.50 up
Four per room	\$8.00 up

and for those desiring dormitory accommodations prices are correspondingly lower.

Garage Accommodations

It is not necessary to park at a distant point. Drive to the entrance of the Medinah Michigan Avenue Club, 505 North Michigan Avenue, and ask the doorman for Convention parking space. The Transportation Committee has made arrangements to have your car placed in a convenient garage or parking space at rates of 50c to 75c for each twenty-four hours.

Everyone Must Enter Code Speed Contests to be Eligible for Prizes

The many hundreds of prizes to be awarded at the banquet Saturday evening, August 5, will be on display during the entire Convention in the Convention headquarters on the eighth floor.

Hundreds of prizes will be given away at the final banquet Saturday evening, August 5. To be eligible to win these prizes it is only necessary for one to enter (not win) the Code Speed Contests to be held at 9:00 A. M. Friday, August 4. When one enters the Code Speed Contests a number will be assigned and a duplicate of this number will be dropped into a sealed box. At the banquet this box will be opened and the slips containing the numbers will be picked at random, and those being lucky will be more than overjoyed at their good fortune.

License Examinations

Arrangements have been made for taking both amateur and commercial government licenses while you are in Chicago. See bulletin board for the time and place these examinations will be held.

Radio Amateur Exhibit at the World's Fair

By all means be sure to visit the two thousand square foot amateur exhibit when you visit the World's Fair grounds. This great exhibit, housing a number of transmitters large and small, and handling message traffic to all parts of the world twenty-four hours a day, is located in the Travel and Transport Building, which can easily be found by asking one of the World's Fair guides, that are stationed in many places over the grounds. (See page 34 for Members of World's Fair Radio Amateur Council.)

WORLD-WIDE RADIO AMATEUR CONVENTION PROGRAM

MEDINAH MICHIGAN AVENUE CLUB

CHICAGO, ILLINOIS

(See bulletin board for room numbers of meetings)

THURSDAY, AUGUST 3

- 9:00 A.M.—Registration of delegates.
- 11:00 A.M.—General Welcome Meeting
- 12:00 Noon—Buffet Lunch (Dutch)—Foyer of Convention Hall.
- 1:00 P. M.—Free Trip to “A Century of Progress” World’s Fair.
- 6:00 P. M.—Buffet Dinner and Entertainment, Hollywood, World’s Fair Grounds (see page 38).

FRIDAY, AUGUST 4

- 7:00 A.M.—Swimming—Club Natatorium, Twelfth and Thirteenth Floors.
- 8:00 A.M.—Breakfast (Dutch)—Main Dining Room, Fifth Floor.
- 9:00 A.M.—World’s Championship and Amateur Code Speed Contests Preliminaries.
- 10:30 A.M.—Transmitting Antennas.
Lieut. Boyd Phelps, W9BP—U. S. N. R.
Phelps Precision Laboratories. (See page 18.)
- 11:30 A.M.—Receiving Antennas—Don Wallace, W6AM—W6ZZA, Radio Engineer and West Coast Radio Distributor. (See page 18.)
- 12:30 P. M.—Buffet Lunch (Dutch), Foyer of Convention Hall.
- 2:00 P. M.—Aircraft Communication Equipment.
R. H. Freeman, Radio Engineer, United Airlines.
(See page 26.)
- 2:45 P. M.—Adaptation of Small Power Tubes to Short Wave Work. Super-sensitive Bridge Voltmeter.
Lieut. John L. Reinartz, W1QP—U. S. N. R.
Research and Consulting Engineer Conn. State College and RCA. (See page 19.)
- 3:30 P. M.—Quartz Crystal Oscillators.
F. Dawson Bliley, W8GU, Bliley Piezo-Electric Company. (See page 25.)

Note: The hours indicated are in accordance with Central Daylight Savings time.

World Wide Radio Amateur Convention

FRIDAY, AUGUST 4 (Continued)

3:30 P. M.—**Photo Electric Cells.**

A. J. McMaster, G. M. Laboratories.

(See page 26.)

4:00 P. M.—**Power Supplies.**

W. J. Leidy, Chicago Transformer Company.

(See page 24.)

4:00 P. M.—**5-Meter Equipment.**

James Millen, National Company, Inc.

(See page 25.)

Super-regeneration by Means of High Frequency Modulation.

Lieut. John L. Reinartz, W1QP—U. S. N. R.

Research and Consulting Engineer Conn. State College and RCA. (See page 19.)

4:45 P. M.—**Frequency Stability**—Electron Coupled Oscillators.

H. P. Wareing, W9NY, Radio Engineer, Milwaukee Police Radio. (See page 21.)

A New Type of Monitor.

Lieut. Com. Fred H. Schnell, W9UZ—U. S. N. R.

Consulting Radio Engineer.

(See page 21.)

4:45 P. M.—**Transmitter Ailments and Their Cures.**

Robert S. Kruse, W1DYO—W1FG.

Consulting Radio Engineer and Author.

(See page 19.)

6:30 P. M.—**“Old-Timers” Get-Together Dinner** (Dutch), Minaret

Room. (For old time Amateurs—1925 or before—only.)

8:30 P. M.—**Electronic Magic.**

B. C. Burden, Engineer Lincoln Tel. and Tel. Co.

(See page 23.)

10:00 P. M.—**“Highlights of My Trip to the Far North” with Rear Admiral Richard E. Byrd.**

Lieut. John L. Reinartz, W1QP—U. S. N. R., Research and Consulting Engineer Conn. State College and RCA.

(See page 19.)

Note: The hours indicated are in accordance with Central Daylight Savings time.

World Wide Radio Amateur Convention

SATURDAY, AUGUST 5

7:00 A.M.—**Swimming**—Club Natatorium, twelfth and thirteenth floors.

8:00 A.M.—**Breakfast (Dutch)**—Main Dining Room, Fifth floor.

9:00 A.M.—**Beginners' Receivers and Transmitters.**

to Lieut. Com. Fred Schnell, W9UZ, U. S. N. R., Con-
Noon sulting Radio Engineer.
(See page 21.)

Clinton De Soto, A. R. R. L. Headquarters.
(See page 20.)

Lieut. A. A. Hebert Wies, U. S. N. R., A. R. R. L.
Headquarters.
(See page 20.)

9:00 A.M.—**Radiophone Session.**

to Loy E. Barton, Engineer, RCA Victor Corp.
Noon (See page 27.)

Robert S. Kruse, W1DYO—W1FG, Consulting En-
gineer.
(See page 19.)

Ralph Batcher, Consulting Engineer. (See page 28.)
Arthur Collins, W9CXX, Collins Radio Company.
(See page 22.)

Kendall Clough, Clough-Brengle Laboratories.
(See page 23.)

9:00 A.M.—**Army Amateur Network Activities.**

Capt. G. Everett G. Hill, Jr., Signal Corps, U. S. A.
(See page 27.)

10:00 A.M.—**Navy Amateur Network Activities.**

Lieut. Com. Fred H. Schnell, W9UZ—U. S. N. R.
Consulting Radio Engineer.
(See page 21.)

Note: The hours indicated are in accordance with Central Daylight Savings time.

World Wide Radio Amateur Convention

SATURDAY, AUGUST 5 (Continued)

11:00 A.M.—**International Amateur Activities.**

Clinton DeSoto, ARRL Headquarters Staff.
(See page 20.)

11:30 A.M.—**ARRL Traffic.**

Lieut. A. A. Hebert, W1ES—U. S. N. R.
ARRL Headquarters Staff.
(See page 20.)

12:30 P. M.—**Buffet Lunch** (Dutch), Convention Hall Foyer.

2:00 P. M.—**World's Championship and Amateur Code Speed Contests Finals.**

See Bulletin Board for time of each Class Contest.

2:00 P. M.—**The Ionosphere.**

Prof. J. Barton Hoag, Ryerson Physical Laboratory,
University of Chicago.
(See page 22.)

2:45 P. M.—**Single Signal Receivers.**

James Millen, National Company, Inc.
(See page 25.)

McMurdo Silver, McMurdo Silver, Inc.
(See page 24.)

3:45 P. M.—**"Bag of Tricks."**

Robert S. Kruse, W1DYO—W1FG, Consulting Engineer.
(See page 19.)

Ralph Batchter, Consulting Engineer.
(See page 28.)

7:30 P. M.—**Mammoth Banquet and The Awarding of Hundreds of Prizes—Grand Ball Room.**

Note: The hours indicated are in accordance with Central Daylight Savings time.

OFFICIAL RULES WORLD'S CHAMPIONSHIP AND AMATEUR RADIO CODE SPEED CONTESTS

The Code Speed Contest open to all radio operators, both amateur and professional, will be conducted in eight speed classes in order that all contestants may compete with those whose code speed is about equal to their own. Beautiful Loving Cups will be awarded the winners of the finals in each class. The title of "World's Champion Radio Operator" and the A Century of Progress trophy will be awarded the winner in Class A.

The eight classes of the contest are as follows:

Class H.....	8 words per minute			
" G.....	12	"	"	"
" F.....	15	"	"	"
" E.....	20	"	"	"
" D.....	25	"	"	"
" C.....	30	"	"	"
" B.....	35	"	"	"
" A.....	40	"	"	" and up

The preliminary trials start at 9:00 A. M. August 4th at the Medinah Michigan Club, 505 North Michigan Avenue, Chicago.

To determine in which class a contestant may compete, all contestants must enter this preliminary trial. The code speed in the preliminary trial will start at eight words per minute and be increased at three minute intervals until a speed of forty words per minute has been reached. Each contestant will copy the code as long as he can. When the trial has ended he will turn in his copy to the judges who will grade it. The judges will place each contestant in the highest classification in which he has made the most accurate copy. The finals in the eight classes will be held August 5th.

Contestants may use pencil, pen, or typewriter for copying the code. Both single case and double case typewriters will be available. Contestants may use either type desired.

1. CODE

International Morse Telegraph Code (Continental Morse) shall be used in this contest.

2. PUNCTUATION

The regular recognized International Morse Code (Continental Morse) punctuation shall be used. A period
 Colon (:) ---. . . . Semi-colon (;) -.-.-. Comma
 (,) -.-.-. Exclamation (!) ---.-. Interrogation (?)
 .-.-.-. Hyphen (-) -.-.-. Apostrophe (') -.-.-. Para-
 graph -.-.-. Zero shall be transmitted as -.-.-. Parenthesis
 -.-.-. (KK) Quotation mark (") -.-.-.

Code Speed Contests—Official Rules

(Continued)

3. WORD COUNT

- A. The standard practice of counting five letters or equivalent per word shall be the official word count.

Examples: 1. RADIO shall be counted as one (1) word

2. AUTOMOBILE shall be counted two (2) words

- B. A punctuation mark shall be counted as two letters.

Examples: 1. PUSH-PULL shall be counted as ten (10) letters or two (2) words

2. JOHN'S shall be counted as seven (7) letters or one and two-fifths ($1\frac{2}{5}$) words

- C. A number shall be counted as two letters.

Example: 41670 shall be counted as ten (10) letters or two (2) words

- D. Mixed text (groups) consisting of a letter or letters and/or a numeral or numerals and/or a punctuation mark or punctuation marks shall be given a letter counted based on the foregoing, outlined in A, B, and C.

Examples: 1. 6-7/8 shall be counted as ten (10) letters or two words

2. UV204-A shall be counted as eleven (11) letters or two and one-fifth words ($2\frac{1}{5}$)

3. 6B7 shall be counted as five (5) letters or one (1) word

4. \$62.93 shall be counted as twelve (12) letters or two and two-fifths ($2\frac{2}{5}$) words

4. TEXT FOR TRANSMISSION

- A. Text for transmission shall consist of plain English letters including numerals and/or punctuation marks or both except as otherwise noted or announced before each contest.

- B. There shall be no "trick" or "catch" words.

- C. At the request of a foreign or foreign contestants, special text prepared in the language of his or their countries may be used except as otherwise noted or announced before each contest.

- D. In general, plain text used in transmission during this contest shall be made up from items appearing in newspapers of the daily press.

- E. Text consisting of five letter code groups, such as FYPOQ, shall consist of plain English letters.

Code Speed Contests—Official Rules

(Continued)

5. COPY

In addition to accuracy, neatness of copy will be considered by the judges. Should the number of correctly copied letters per minute of two contestants be the same, the contestants having the neatest copy will be declared the winner.

A. Each punctuation mark shall be copied in accordance with the transmitted text.

6. TRANSMISSION

In the final trials in classes H, G, F, E, D, C, B, the transmission will be for five minutes at the word per minute rate corresponding with the class of the contest, as previously mentioned. The winner of these classes will be chosen as hereinafter mentioned in the code grade classification.

In class A, five minute trials will be held at the following rates: 40—45—50—53—55—57—59—61—63. All contestants in class A will be eligible to copy in all of the different trials in this class, as long as their percentage of error does not exceed 1% as each trial of this class proceeds.

7. CODE GRADE

The Code Grade of the contestants at any given rate of speed shall be determined from the following formula:

$$\frac{C - E}{C} \times 100 = P \text{ where } \begin{array}{l} C = \text{Characters} \\ E = \text{Errors} \\ P = \text{The percentage at a given rate} \end{array}$$

Example: If the transmission is at 50 words per minute, for 5 minutes, and the contestant copying makes ten errors, substituting in the formula, we then find:

$$\frac{1250 - 10}{1250} \times 100 = 99.4\% \quad \begin{array}{l} C = 50 \times 5 \times 5 \\ E = 10 \\ P = 99.4\% \end{array}$$

8. CHAMPION

The champion shall be the person having the highest percentage of correct copy at the highest speed given with a maximum error not to exceed 1% per minute.

9. ERRORS

No change or correction shall be made in the code copy. If an error is made and corrected, the contestant shall still be charged with the error.

10. JUDGES

I. S. Coggeshall, Western Union Telegraph Co.

Lieut. Cmdr. F. H. Schnell, W9UZ, Consulting Radio Engineer.

Lieut. A. A. Hebert, W1ES, A. R. R. L. Headquarters Staff.

Any questions arising from, in, or before the Code Speed Contest shall be decided by these judges and their opinion shall be final.

CONVENTION SPEAKERS

RUFUS C. DAWES



Although Mr. Dawes is not an active amateur, he is a most ardent supporter of all amateur activities. Many of Mr. Dawes' leisure moments have been spent in Mr. Davis' (W9GES—W9LK—W9BT) radio room and he has mentioned many times that were it not for his many duties which take up so much of his time he would brush up a bit, take the license examinations, and get on the air.

Much credit for the World's Fair Amateur Exhibit goes to Mr. Dawes for without his enthusiastic and loyal support the exhibit would probably not have been realized.

As everyone knows, Mr. Dawes is president of the World's Fair, A Century of Progress.



PAUL H. DAVIS

Chicago's first amateur whose interest in the experimental side of radio goes way back to 1903. Actually operated a transmitter in 1903—a real "Old-Timer" to be sure.

From 1922 to 1931 very active in the development of broadcast receivers and in this connection had several patents issued.

It was only natural that Mr. Davis' son Paul, Jr., became interested in amateur radio and due to his thorough knowledge of the subject Com. MacMillan chose him for one of the operators on his Iceland Expedition in 1931.

Mr. Davis' calls are W9GES, W9BT, and W9LK. Past Vice President Chicago Radio Traffic Association, Past President Chicago Stock Exchange, Member Illinois Ham Club, Senior partner Paul H. Davis and Company.



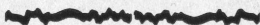
CONVENTION SPEAKERS

HIRAM PERCY MAXIM

One of the world's first amateurs. It was he who first conceived the idea of the American Radio Relay League, for back in 1914 when crude spark transmitters were "the latest," Mr. Maxim had to relay messages through a midpoint station to reach Springfield, Massachusetts—thirty miles from his home in Hartford, Connecticut. Shortly thereafter he started the preliminary work in organizing the League, which today has grown to many thousands and which boasts of memberships in most all foreign countries. It is only natural then that Mr. Maxim holds the position of president of the American Radio Relay League.

Famed principally for his work in the field of sound Mr. Maxim pioneered in the early development of the automobile and is prominent in numerous other fields; he has written widely on general scientific subjects and is the author of the recently published book, "Life's Place in the Cosmos." He holds an honorary degree as Doctor of Science at Colgate University and a commission as lieutenant commander in the U. S. N. R.

Mr. Maxim is also president of the company bearing his name—the Maxim Silencer Company.



HAROLD D. HAYES

Born at San Francisco, Calif., August 30, 1888.

Awarded Degree of Electrical Engineer in 1907.

Organized and served as Director of Radio School in Los Angeles, 1912-1916.

Assistant Radio Inspector at San Francisco, 1916-1917.

Assistant District Communication Superintendent, San Francisco, U. S. Navy with rank of Lieutenant (jg), 1917-1919.

Radio Inspector, Seattle, Wash., 1923-1925.

Supervisor of Radio, Washington, D. C., junior assistant to Director of Radios, 1925-1927.

Supervisor of Radio, Chicago, in charge of district comprising twelve and a half states, 1927 to November 1, 1932.

Acting Inspector in Charge, Chicago, in charge of Federal Radio Commission Chicago district, November 1, 1932 to date.

Member: Institute of Radio Engineers; American Academy of Air Law.



CONVENTION SPEAKERS

BOYD PHELPS



Born March 29, 1899, in South Dakota. Educated at the University of Minnesota (Dept. of E. E.) Amateur 1911 to date holding calls 2BP, 9ALL, 9ZT, 1HX, 1XAQ, u2EB, W2BP, W2BPP, W9BP. War Navy operator NAI, WNA, NSM and instructor. Now Lieut., C-V (S), U. S. N. R. Short and Ultra-short wave pioneer experimenter: "Radio Below 200 Meters" 1921, 100 meters 1922, one of first group of three to work across Atlantic 1923, best DX on 5 meters, first two-way 5 meter code and phone transmissions, first $\frac{3}{4}$ meter transmitter and receiver, lowest wave regenerative oscillator, highest precision frequency measurements, first amateur television, etc. Asst. Editor QST 1922. Chief Engineer, Research Engineer or Consulting Engineer 1923 to date

with following companies: Tuska, Grimes, Sleeper, Richardson (Cornell), I. R. T., Freed-Eisemann, Press Wireless, Television Mfg., A.K., etc. Holder and licensor several U. S. and foreign radio patents. Now owns Phelps Precision Laboratory, Minneapolis, Minn., specializing in broadcast frequency measurement and consulting.



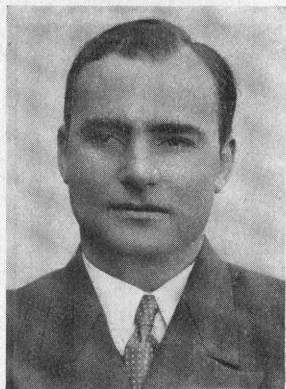
DON C. WALLACE

1000 watt Radio Station W6AM.

Portable Radio Station W6ZZA.

Born Bellview, Minnesota, July 10, 1898.

Winner 1923 Herbert Hoover Radio Cup for best All-Around Amateur Short Wave Station in the U.S.A. Past Chairman IRE (Los Angeles Section). Builder and operator of W6AM—1000 watt short wave station. (Also many other short wave stations.) Los Angeles Section Communication Manager ARRL 3 years. Previously Division Manager for the Dakota Division. Chief in Charge President Wilson's radio aboard U. S. S. George Washington. First Chairman and organizer Interference Committee, Radio Trades Association, Southern California. Contributor to various radio and scientific magazines (QST, Radio, Christian Science Monitor, Radio News, Popular Radio, Los Angeles Times, Minneapolis Tribune, Long Beach Press Telegram, Western Radio. Editor "Round-The-World Short Wave Radio Log." Author, "The 1933 Short-Wave Manual." Past President, and present Vice President Radio Manufacturers' Agents Association of Southern California.



CONVENTION SPEAKERS

JOHN L. REINARTZ

Born in Germany, 1894, Mr. Reinartz, better known as John Reinartz, started radio experimental work in 1911.

His deep interest in the subject led to his inventing the Reinartz tuner in 1922, a most popular receiver at that time.

Proposed the first short wave reflection theory in 1925.

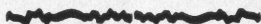
Went with Byrd to North Greenland in attempt to fly over pole in 1925, provided contact through amateur radio.

Commissioned Lieutenant U. S. N. R. by Navy Department in 1929 for work in radio.

Became a member of the Institute of Radio Engineers in 1932.

At present Mr. Reinartz is doing research at Connecticut State College along with consulting work for RCA Radiotron.

A most active and ardent amateur operating under the call of W1QP, Mansfield Centre, Conn.



ROBERT S. KRUSE

Born Halstead, Kansas, August 4, 1892. Educated at University of Kansas and was graduated with a B.S.E.E. degree.

Past connections include wartime work with Western Electric, Associate Engineer Bureau of Standards, Engineer Hammond Radio Research Laboratories, Technical Editor Q.S.T. Since 1918 consulting engineer.

Mr. Kruse since 1908 has been a very active amateur. Much of his time was spent in pioneering in short waves working in conjunction with other famous amateurs such as Phelps, Schnell, Himoe, Meridith, Glaser, Hatry, Hastings, Lee, Reinartz, Mott, and others. During this work many "firsts" were recorded by the participants. Present calls—W1DYO—W1FG.



In addition Mr. Kruse is a well-known author, having written several hundred radio articles and some widely used text books.

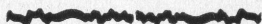
CONVENTION SPEAKERS

CLINTON DE SOTO



Calls are W1CBD and W1ZZF. Formerly held 9KL in several locations in Wisconsin. At the American Radio Relay League headquarters Mr. De Soto's official title is Assistant to the Secretary, principal work promoting the several varieties of the American Radio Relay League publicity—newspaper, magazine and broadcast. Also has charge of the WAC (Worked All Continents) Club and conducts the International Amateur Radio Union News department in QST. In addition to general secretarial work Mr. De Soto also handles much of the league correspondence.

Principal radio interest at present is receiver experimentation. Was very active in 56 megacycle development during 1932. Secretary of the Connecticut Valley Section of the Institute of Radio Engineers.



LIEUT. A. A. HEBERT

As field man and treasurer of the American Radio Relay League, A. A. Hebert is well known to most all amateurs. In filling the League position of Fieldman, Mr. Hebert travels extensively, in which capacity he aids amateur radio clubs, attends conventions, and keeps in general touch with the world of amateurs.

Mr. Hebert has been a most active amateur from "way back when," having been a member of the ARRL board since its national organization and was the League's first manager and vice president.

Commissioned lieutenant in U. S. N. R.

Mr. Hebert's call is W1ES.



CONVENTION SPEAKERS

LT. CMDR. FRED H. SCHNELL

Few perhaps are more widely known in radio circles than Lt. Cmdr. Fred H. Schnell. His radio experience goes back twenty years—twelve years before radio broadcasting began.

Lt. Cmdr. Schnell organized the first transcontinental amateur relay. He was also the first American amateur to establish two-way communication with France.

Copied the Armistice Message from Germany at the close of the war and was the one chosen to send the acknowledgment—the first radio communication with Germany after the World War.

At the request of the Navy Department in 1925, he conducted the first long range high frequency test for the Navy during the cruise of the U. S. fleet to the South Seas.

For six years (1920-1926) Lt. Cmdr. Schnell was traffic manager for the ARRL.

In addition to still being an ardent amateur Lt. Cmdr. Schnell is acting in a consulting capacity with many organizations at the present time.



H. F. WAREING



Born in Nottingham, England, February 5, 1900. Naturalized United States citizen. B.S. in E. E., Marquette University, 1927. Amateur operator's license, February, 1916. Commercial operator's license since March, 1916. Marine radio operator Marconi Wireless Telegraph Company of America, 1919. Same, R.C.A. 1920-1921. Laboratory Assistant in Physics and Chief Operator WHAD Marquette University, 1924-1926. Instructor in Radio, University of Wisconsin, Extension Division, 1926-1930 (part time), Director. Transmission Laboratory, Universal Wireless Communication Company, 1929-1930. Radio Engineer, City of Milwaukee, Police Department, 1930 to date.

Associate member I. R. E. 1922, member I. R. E. 1931 to date. Pre-war call 9AEX, Chicago. Present call W9NY, Milwaukee. Member Lane Tech Radio Club, 1915-1916. Charter member Ravenswood Radio Association, 1919. Member Milwaukee Radio Amateurs Club 1920, President 1922, Vice President 1921, Honorary member 1926, Director 1931 to date.

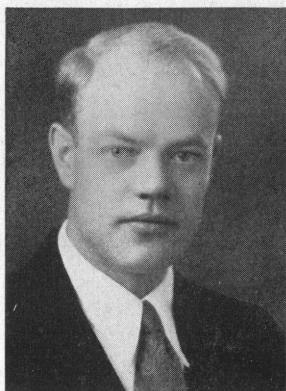
CONVENTION SPEAKERS

PROF. J. BARTON HOAG

Born in Colorado Springs, Colorado, September 22, 1898.

So wide have been Prof. Hoag's radio experiences and connections that it is most difficult to do justice to them in this small space. Suffice to say his first radio experience was with the Army Radio School, Colorado College, 1918, and later a physics instructor at the same school. From 1922 to date Prof. Hoag has been doing considerable research work at the University of Chicago, specializing on skip distances—their causes and effects. Prof. Hoag's recent trip to Europe brought forth considerable new information on this subject.

Member Institute of Radio Engineers, American Association for the Advancement of Science, Illinois Academy of Sciences, and Phi Beta Kappa.



ARTHUR A. COLLINS

Mr. Collins has actively followed the development of short wave radio since its beginning and his amateur station, W9CXX, was among the first to carry on successful long range communication on frequencies above 10 mc.

Educated at Amherst College and the State University of Iowa, he was connected with commercial enterprises, outside the radio field, until the formation of the Collins Radio Company, Cedar Rapids, Iowa, in 1930. This company is engaged in the manufacture of standardized high quality transmitting equipment.

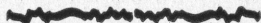


CONVENTION SPEAKERS

B. C. BURDEN

Born in Red Cloud, Nebraska, on November 29, 1901. After finishing high school attended Bliss Electrical School in Washington, D. C., followed by special work at the University of Nebraska and an extensive training course at the Bell System Engineering School in Minneapolis.

Now connected with the Lincoln Telephone and Telegraph Company of Lincoln, Nebraska, as Transmission Engineer and has charge of all transmission design work for that company. Since 1928 has been actively engaged in technical writing and through his current articles in leading communication journals in both this and foreign countries has become well-known in the telephone field.



KENDALL CLOUGH

Born Sioux Falls, South Dakota, March 10, 1903.

Operated pre-war 9AAM Sioux City, Iowa.

Past commercial affiliations:

American Telephone and Telegraph Co., Long Lines Div.; Kellogg Switchboard & Supply Co., Research Dept.; Electrical Research Laboratories, Chief Engineer; Research Laboratories of Chicago, Pres.; Silver-Marshall, Inc., Chief Engineer.

Present:

The Clough-Brengle Co., Chief Engineer.

In his official capacity with Silver-Marshall and with the Research Laboratories as a consultant to Silver-Marshall, Mr. Clough was responsible for many of the major developments presented by them in the past six years.



CONVENTION SPEAKERS

McMURDO SILVER



Born in Geneva, New York, March 15, 1903.

In 1911 became interested in wireless, and from 1912 to 1916 did much experimental work at 8VM.

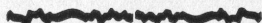
Mr. Silver's first commercial radio connection came in 1920, when he joined the Westinghouse Lamp Company at Bloomfield, New Jersey, and engaged in the development of transmitting and receiving tubes of the first UV series.

From the Westinghouse tube laboratories he went to the Manhattan Electrical Supply Company in New York until 1922, when he joined the Griffin Radio Service, later the Haynes-Griffin Company of New York. In this connection he developed the first popular and practical superheterodyne—the Haynes super kit.

In 1924 Mr. Silver came to Chicago and organized Silver-Marshall, Inc., which company he built up into one of the first ranking radio manufacturers.

In 1932 he organized the firm of McMurdo Silver, Inc.

From Mr. Silver's laboratories in the past nine years have come some forty original engineering developments found today in almost every radio receiver made.



W. J. LEIDY

Mr. Leidy is one of the few "Old-Timers" whose radio experience goes back before there was such a thing as a radio law. For eight years—1912-1920—Mr. Leidy was a radio operator for the United States Navy and it was during this time that he fully realized all amateurs are a most important cog in our national defense.

During the past few years Mr. Leidy has been engaged in the manufacture of transformers and the like, acting in the capacity of president of the Chicago Transformer Corporation.

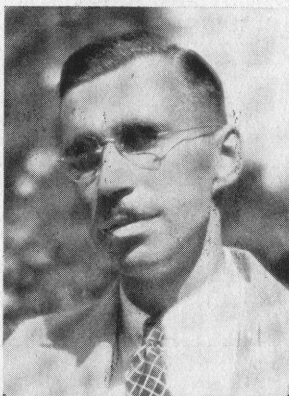
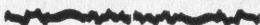
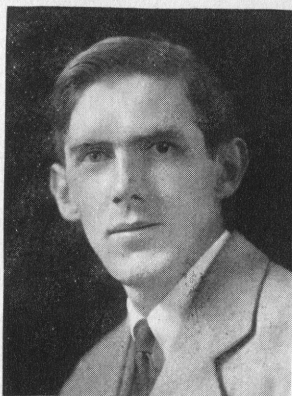


CONVENTION SPEAKERS

JAMES MILLEN

The name, James Millen, immediately brings to mind one thought—the National Company of Malden, Massachusetts, of which company he is vice president. Due to his broad viewpoint and experiences of amateur activities and his thorough knowledge of transmission engineering, Mr. Millen has been greatly responsible for his company's developing much high grade amateur and commercial radio apparatus. Some notable examples of this are: the AGX and FBX single signal super-heterodyne receivers.

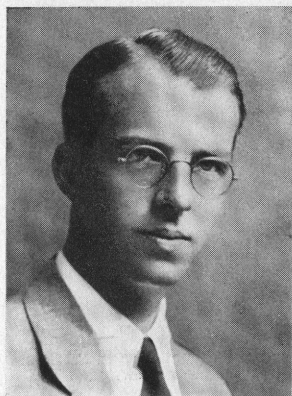
Mr. Millen, a young man in his early thirties, always has and always will be a real friend of the amateur fraternity.



F. DAWSON BLILEY

Born in Erie, Pennsylvania, April 29, 1906, and started in radio at the early age of 13 years. Has held about a dozen different amateur licenses including experimental station 8XC in 1924, doing high frequency development work. Graduated from Pratt Institute at Brooklyn in 1929 and has been manager of Bliley Piezo-Electric Company, Erie, Pennsylvania, manufacturers of Piezo electric quartz crystals, to date. Still active in amateur transmission and reception operating under the present call of W8GU.

CONVENTION SPEAKERS



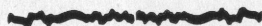
A. J. McMASTER

Educated at the University of Illinois and was awarded a B.S. degree in 1925.

Instructor in electrical measurements, University of Illinois—1925-26.

President, G-M Scientific Instrument Co., 1926-28.

President and Technical Director G-M Laboratories, Inc., manufacturers of photo electric devices, 1928 to date.



R. H. FREEMAN

Born May 22, 1903, and was graduated from the University of Colorado in 1925 with a B. S. degree.

Immediately after graduation Mr. Freeman joined the Radio Development Department of the Bell Telephone Laboratories. In 1928 when communications with airplanes was in its infancy he went with the Boeing Air Transport Company as Communications Engineer and was responsible for much development work in this regard.

Leaving Boeing in 1931 Mr. Freeman joined the United Airlines in the capacity of Chief Engineer Communications Department and the early part of this year was promoted to engineer in charge of design and development of the same company.

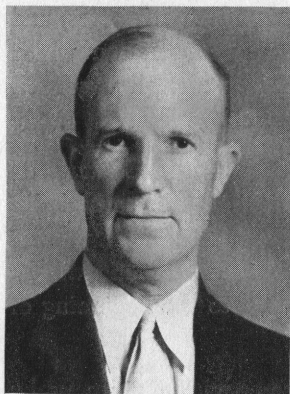
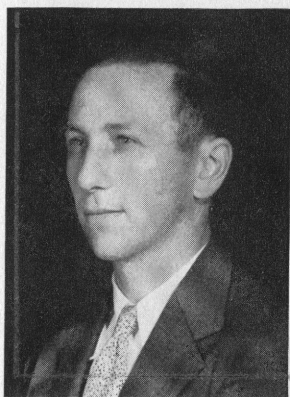


CONVENTION SPEAKERS

LOY E. BARTON

Born November 7, 1897, at Fayetteville, Arkansas. Received B.S. degree in E.E., University of Arkansas, 1921. Instructor University of Arkansas, 1921-1925. Received E.E. degree, University of Arkansas, 1925. Student engineer, radio department, General Electric Company, 1925-1927. Associate professor electrical engineering, 1927-1929. Tube problems and tube testing equipment Radio-Victor Company, RCA Victor Company, 1929-1932. Research Division RCA Victor Company, 1932 to date. Member Institute of Radio Engineers, 1929 to date.

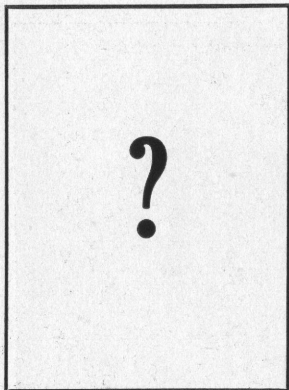
As is generally known, Mr. Barton was responsible for the development of Class B low cost modulation which is considered one of the major developments in radio transmission during the last several years.



CAPT. G. EVERETT HILL, JR.

Born in Philadelphia, Pa., November 25, 1887. For a number of years prior to the war employed as an outside plant engineer by the New York Telephone Company. Sent to France in August, 1917, as 1st Lieutenant, Signal Reserve Corps. Returned to this country for duty as instructor in June, 1918. Permanently commissioned in regular Army July 1, 1920. Graduate of the Signal School, Fort Monmouth, N. J., 1925, and the Command and General Staff School, Fort Leavenworth, Kansas, 1931. Sometime Secretary and Instructor at the Signal School and at present Assistant to the Corps Area Signal Officer, Headquarters Sixth Corps Area, Chicago, Illinois.

CONVENTION SPEAKER



RALPH R. BATCHER

Born June 7, 1897, at Dysart, Iowa. Radio amateur, 1909-1916 (9IT-9IH); operator, station 9YI, Iowa State College, 1915-1916; assistant U. S. Radio Inspector, New York, 1917; instructor, Marconi Institute, 1918; instructor, College of the City of New York, 1918. Received B.S. degree in E.E., Iowa State College, 1920. Engineer, Western Electric Company, 1920-1924; A. H. Grebe and Company, 1924-1928; vice president, Decatur Manufacturing Company, 1928-1930; research engineer, 1930 to date. Junior member, Institute of Radio Engineers, 1916; Associate, 1918; Member, 1922.

A WORD OF THANKS

In making preparations for the World's Championship and Amateur Code Speed Contests which required very careful thought and more than two months' planning, we are indebted to the Western Union Telegraph Company, Candler Systems, RCA Institutes, and Curtiss-Wright Aeronautical University. The cooperation which these people have so willingly given indicates in a small way their enthusiasm and loyal support of the amateur colony.

The tapes for automatic sending the Code Speed Contests on a Wheatstone transmitter were cut in the presence of several disinterested parties by the Western Union Telegraph Company, New York City. These tapes were then immediately sealed and will be opened in the presence of the judges just prior to the beginning of the contests.

We are greatly appreciative for the co-operation given us by Elliott, Fisher, Remington-Rand, Royal, L. C. Smith, Underwood and Woodstock in furnishing the typewriters for our Code Speed Contest. Likewise Chicago Telephone Supply Company and Trimm Radio Mfg. Co. for their splendid headphones.

AN ACKNOWLEDGMENT

The World Wide Radio Amateur Convention Committee wishes to thank the following manufacturers and distributors of radio apparatus for their contributions and assistance in providing valuable, worthwhile prizes, and the advertisers who made possible the publishing and distribution of this program.

Amateur Service Sales, Chicago, Ill.
American Microphone Company, Los Angeles, Cal.
American Sales Company, New York City.
Arlab Manufacturing Company, Chicago, Ill.
Banks Inter Air Products Company, Woodside, L. I., N. Y.
Bliley Piezo Electric Company, Erie, Pa.
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M. M. Fleron & Son, Trenton, N. J.
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Thordarson Electric Company, Chicago, Ill.
Triad Mfg. Company, Pawtucket, R. I.
"Uncle Dave," Albany, N. Y.
Weston Electrical Instrument Co., Newark, N. J.

POINTS OF INTEREST IN CHICAGO

WORLD'S FAIR CENTURY OF PROGRESS

Academy of Science:

Lincoln Park at Clark and Center Streets. A noted museum of natural history, including the Children's Science Library. Open week days 9 a.m. to 5 p.m., and on Sundays 1 p.m. to 5 p.m.

The Board of Trade:

Jackson Boulevard at La Salle Street. A new 44-story building. Building and real estate valued at \$22,000,000. It occupies the site of the old Board of Trade Building at the head of Chicago's great financial thoroughfare. The trading floor where grain, cotton and securities are handled, is the most modern of any exchange in the world. It also boasts the highest observatory in the city. Open every day including Sundays from 6 a.m. until dark.

Chicago Historical Society:

Lincoln Park. New building, just opened, which contains interesting exhibits connected with the history of Chicago and Illinois. Open from 9:30 a.m. to 4:30 p.m. on week days and from 1 p.m. to 5 p.m. on Sundays. Admission free on Mondays, Wednesdays and Fridays. Other days, 25 cents.

Chinatown:

22nd Street and Wentworth Avenue. A district devoted to wholesale and retail shops and other business and social projects of the Chinese. The Chinese Merchandise Mart offers unusual imported wares to the visitor.

Elks Memorial Building:

Diversey Parkway and Lake View Avenue. A large and magnificent building erected in honor of 70,000 Elks who served in the World War. Open daily, free to visitors, between 10 a.m. and 5 p.m.

Field Museum of Natural History:

Leif Ericson Drive, opposite Twelfth Street. A most wonderful and valuable collection, gathered from the four corners of the earth. A \$50,000,000 exhibit. Open daily from 9 a.m. to 5 p.m. Admission free Thursday, Saturday and Sunday. Other days, 25 cents.

Northwestern University:

McKinlock Campus, Chicago Avenue and Lake Shore Drive. These buildings include the medical, dental, law and commercial schools, and Passavant Hospital. The rest of the University is located at Evanston, about 10 miles north of McKinlock Campus.

University of Chicago:

Located on the Midway Plaisance, between Washington and Jackson Park. One of the world's great universities. Founded by a grant of land from Stephen A. Douglas. Among the buildings worthy of a visit are the University Chapel, Billings Memorial Hospital, the Eckhart Laboratory, the Oriental Institute and International House.

Union Stock Yards:

Located between Pershing Road and 47th Street, and between Halsted Street and Marshfield Avenue. The greatest livestock market in the World.

Lincoln Park and Zoo:

One of the largest parks in America. Zoo contains over 2,500 specimens in large animal houses and dens.

Garfield Park Conservatory:

In Garfield Park, just north of Lake Street, on the west side of Chicago. In addition to being the largest conservatory in Chicago it features a large Tropical Exhibit.

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Grand Tour of Chicago:

Including Loop and World's Famous Parks and Boulevards. Stops made at Chicago University and Garfield Park Conservatory. 50 miles. Time, three hours.

Greater Chicago Tour:

Including Evanston, Northwestern University, Home of former Vice-President Dawes and Fort Sheridan. Follows North Shore of Lake Michigan for nearly thirty miles. The most delightful and finest half-day tour out of Chicago. 60 miles. Time, about four hours.

Stockyards and Packingtown:

The most educational tour in America. An inside view of the great industry that first made Chicago famous. 20 miles. Time, two and one-half hours.

Chicago North Tour and Loop:

All points of interest in the Lincoln Park District and North Side of City with a stop at the Garfield Park Conservatory of the West Park System. 25 miles. Time, one and one-half hours.

Evening Tour:

Chicago by Night. A strange and different tour. Chinatown, The Ghetto, Little Italy, Hoboland, etc. A tour well worth making. 20 miles. Time, two and one-half hours.

PROGRAM

WORLD WIDE RADIO AMATEUR CONVENTION



SATURDAY EVENING, 7:00 P. M.

**BANQUET
GRAND BALLROOM**



TOASTMASTER—Lieut. Comdr. F. H. SCHNELL, U. S. N. R.



SPEAKERS

RUFUS C. DAWES—President "A Century of Progress"

Lieut. Comdr. HIRAM P. MAXIM, U. S. N. R., President A.R.R.L.

PAUL H. DAVIS, W9GES, W9BT, W9LK—Past President Chicago Stock Exchange.

HAROLD D. HAYES—Radio Inspector in Charge Chicago Office.

Lieut. A. A. HEBERT, U. S. N. R., Treasurer Fieldman A. R. R. L.

Captain G. EVERETT HILL, JR., United States Army Signal Corps.

**Admiral WAT T. CLUVERIUS, United States Navy, Commandant
9th Naval District.**



AWARDING OF PRIZES

BANQUET MENU

FRESH FRUIT CUP, GRENADINE

CREAM OF FRESH TOMATOES, CHANTILLY

AUX CROUTONS, SOUFFLE

HEARTS OF KALAMAZOO CELERY

JUMBO MIXED OLIVES

ROAST SIRLOIN OF BEEF, MADERA SAUCE

NEW PEAS AND POTATOES, BARQUETTE

SALAD ST. LAWRENCE

TOASTED WAFERS

BOMBE PRALINE, RELAY

PETIT FOURS

DEMI TASSE



Believe It or Not—

The Initials BP belong to Boyd Phelps and form the characteristic part of his station call W2BP in New York. When this is portable the letter P is added for anywhere in the U. S. Part of each year has been spent in Minneapolis, Minn., where he similarly signs W9BP. W9BP is at 3612 — 22nd Ave. South, is directional south, is on 3612 kcs, and Phelps has been a ham exactly 22 years!

MEMBERS

WORLD'S FAIR RADIO AMATEUR COUNCIL

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Affiliated with the American Radio Relay League

NOTES

NOTES

AUTOGRAPHS

HOLLYWOOD

Due to the delegates visiting the World's Fair grounds en masse Thursday afternoon, August 1, arrangements have been made with Hollywood, one of the finest concessions on the grounds, to serve a special buffet supper at 6:30 P. M. A special low price of \$1.25 (in addition to \$4.50 registration fee) includes both the buffet supper and entertainment.

In Hollywood one will find several theatres and a large open-air casino, admission to all being included in the \$1.25 charge referred to above. Because the NBC and CBS radio chains operate from the stages of these theatres with actual broadcasts, you will have an opportunity to see famous movie actors and actresses making films and your favorite radio stars broadcasting. Every delegate is urged to attend this Hollywood party.

KRUSE'S RADIOPHONE GUIDE

A Product of the Answer Factory

TELLS HOW

35c Postpaid

Robert S. Kruse, R.F.D. 2, Guilford, Conn.

Our Experience and Follow-Up Methods
On Delinquent Accounts

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AT W9USA

There'll be an Engineer to Answer Questions

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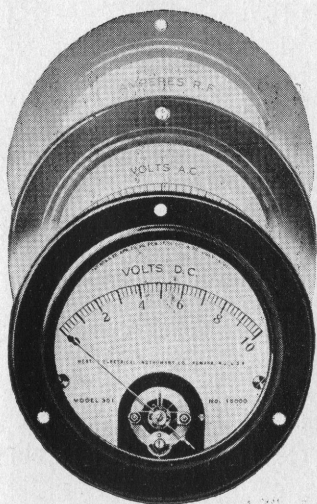
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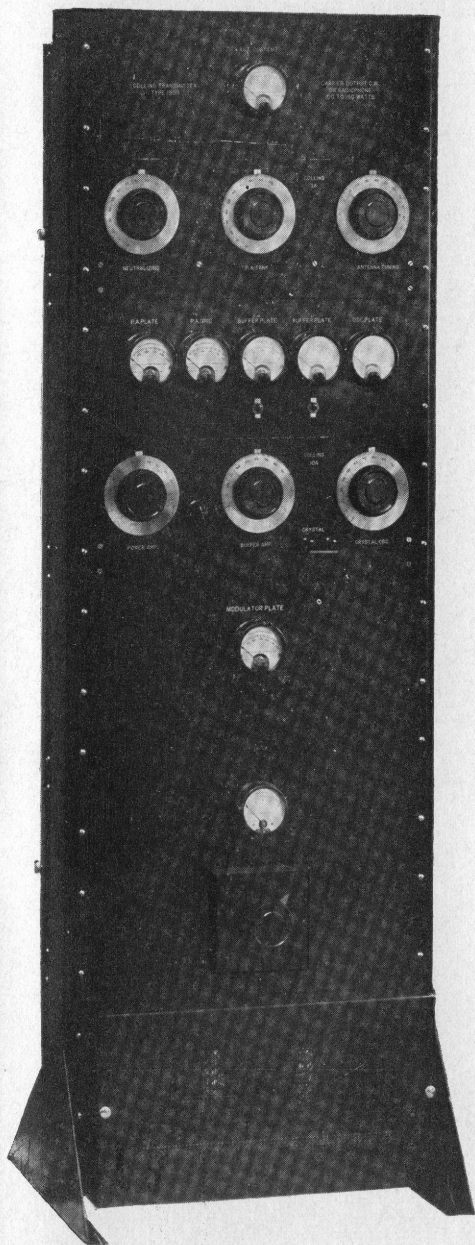
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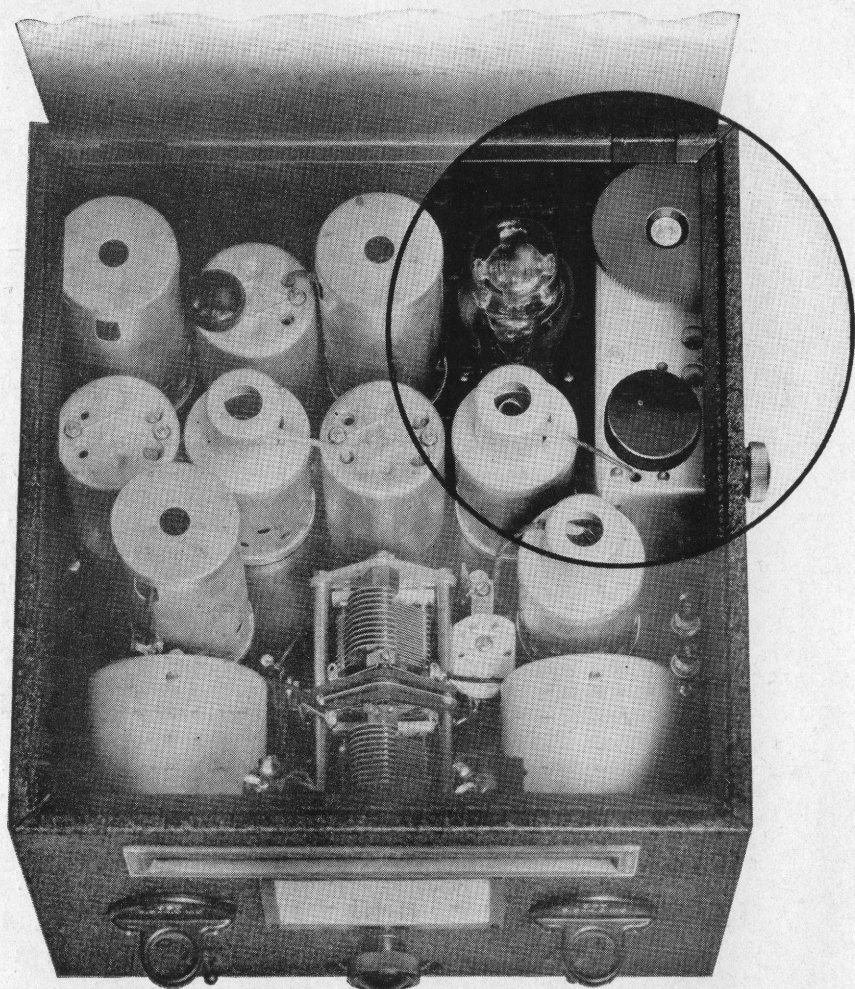
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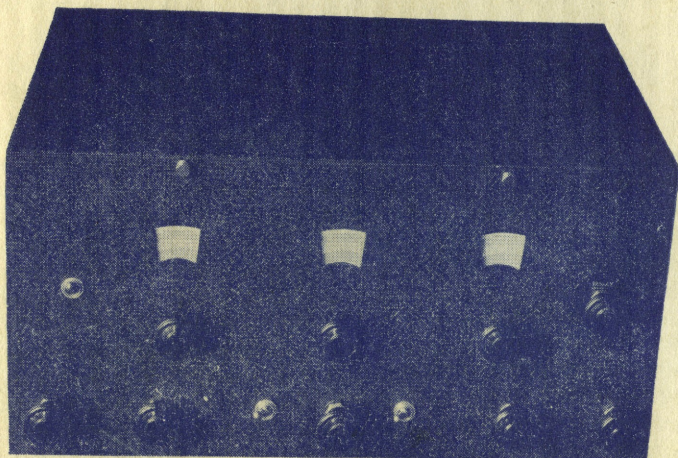




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