

Indiana Historical Radio Society
BULLETIN

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JANUARY



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245 N. Oakland Ave.,
Indianapolis, IN 45201

News, Articles, RADIOADS

851 W. Wooster St.,
Bowling Green, OH 43402

IHRS is a NON-PROFIT organization which was founded in 1971. Annual membership dues are \$8.00 which includes first class quarterly IHRS Bulletin. RADIOADS are free to all members.

****PLEASE****

Send a stamped, self-addressed envelope
when requesting information.



OFFICERS FOR '86: (seated) Marilyn Johnston and Edna Clemans. (standing) George Clemans, Ed Taylor, Eric von Grimminstein, and Paul Gregg. Not pictured is Diane Heathcote.

VALPO REPORT

A fine meeting was held at Valparaiso Technical Institute, September 14th, 1985, where IHRS members enjoyed the very gracious hospitality of Mr. and Mrs. Art Hershman. The swap meet and lunch were followed by a brief business meeting. New officers for 1986 were elected, and you will recognize some familiar names. (See the inside front cover.) Dues were raised to \$8.00 annually, payable in January. Two other pieces of interesting business were the decisions to have our **Bulletin** professionally typeset and to hold our Fall meetings in the future on the second Saturday in September at V. T. I.

Your editors have now completed one year on the job. We would like to thank all of you who have made some pretty nice comments to us and who have taken the time and effort to contribute articles and information to us. We would truly enjoy more editing and less writing; so why don't you submit something to us in the coming year? It would beat reading us, right? We would like for the **Bulletin** to reflect and represent the whole of the Indiana Historical Radio Society. Tell us how we can improve; we'll listen. Finally, George and I would like to wish everyone a very happy new year with good hunting!

Edna (Co-ed.)

NOTE FROM THE PRESIDENT

This is my first note as President of IHRS. I have just retired, so I should have more time for my IHRS duties, as well as my other hobbies. In addition to collecting, I intend to spend more time operating my ham station and fishing!

I hope to do two things during my term as President. The first is to increase the membership. The second is to increase the attendance at the meetings. To do this, I need input from the members. I would appreciate your comments and suggestions at our upcoming winter meeting in February. See you there.

Happy Holidays!
Paul Gregg



Assistant to the Secretary

CONGRATULATIONS, ED!

We have learned that IHRS Historian and Founding Member Dr. E. E. Taylor received the Ron Scranton Memorial Award for 1985, given by the Antique Radio Club of Illinois. The award is given to those persons whose work in the preservation of antique communication equipment and/or the preservation of the history of communication merits it.

The Ron Scranton Award was established by the Illinois group to honor their club member who passed away in 1980. The recipient has his name engraved on a beautiful cup and keeps this for one year. A miniature version is his permanently. Past winners are Dr. Ralph Muchow, Bob Paquette, and Jerry Vanicek.

SHARING WITH MY FELLOW COLLECTORS

DON K. JOHNSTON

Most of us pick up a few telegraph instruments at some point in time as we pursue our radio hobby. In fact, many of our members specialize in telegraph memorabilia and are not really too interested in radios; they are actually searching for telegraph material when they are attending our meetings.

The history of telegraphy is extremely interesting and played a very important and vital role in our country's development -- long before radio was invented. It is no wonder that so many people are interested in this field of communications. Besides, who can resist the beautiful brass and walnut instruments?

I don't specialize in telegraph equipment, but I certainly enjoy what I have. I am also fortunate to have been involved, indirectly, with some of telegraphy's past. My father was a telegrapher with the Pennsylvania Railroad in the teens and twenties. Some of my fondest memories are of the times that I went with him in our 1918 Hupmobile -- with the side curtains flapping -- to a railroad tower where he was the night shift operator.

Most of the towers are deserted or long gone, but I still have the very vivid impressions left on a five-year-old. After we had climbed the tall tower steps, my father and I would be greeted by the day operator, who was going off duty. Believe me, the pot-belly stove was a welcome sight after a drafty trip on a winter night. The room smelled heavily of coal smoke and pipe tobacco, and the chattering of the sounders was always present. I'll never forget the delightfully different taste of the water from the drinking bucket. It was flavored with smoke and cinders.

Wireless Keys

RELIABLE TELEGRAPH KEY.



No. 10X1 Reliable Telegraph Key. Price\$1.90 Postage 11c

A practical and serviceable key for amateurs, private line work, or any telegraph circuit. Also excellent for experimental wireless.

The lever is the solid trunion nickel plated type as used on standard keys. The key base is japanned and striped. All other metal parts on grained and lacquered brass. All mounted on polished wood base. This key is unquestionably the best amateur's wireless key on the market.

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Our No. 10X0 Legless Key is particularly fine for wireless work, and can be used nicely on all sets up to $\frac{1}{4}$ K. W. It has heavy platinum contacts. (The present price of this metal is \$80.00 per ounce.) We have received many voluntary testimonials commending the excellence of this key for wireless use, within the limits above mentioned, and even on $\frac{1}{4}$ K. W. sets, and it cannot help but prove a source of pleasure and satisfaction to its users.

No. 10X0 Legless Key\$2.60 Shipping Wt. 10 oz.

1921 Wm. B. Duck Catalogue.

Occasionally the building would shake when the trains roared by. I worried about the possibility that my dad had pulled the wrong levers from the long row and that the train would go hurtling from the tracks. I always wondered, if the engineer missed the message my dad held up for him to grab from the hoop, as the train sped by, would the train have to stop and back up!

I am very fortunate to have been exposed to those good old days, and I treasure the memories. I could go on, but I guess the real reason for this rambling is to alert you to a real fine association. They publish a large quarterly paper that is chock-full of telegraph history, meetings, anecdotes, ads, letters, and railroadania.

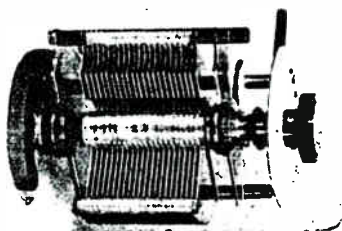
If you like telegraphy or railroading, I strongly recommend this organization. It's a steal at only \$5.00/year. Contact the Morse Telegraph Club, A. J. Long, 520 West Swartz, Salem IL 62881.

SENDING KEY, UQ-800
 This key is especially serviceable for C. W. transmitting sets. The contacts are made of 1/4-inch sterling silver and, besides being interchangeable, are easily replaced. The lever arm is both light and durable and is designed to permit an operator to secure the utmost speed possible. The frame and other metal parts are brass, finely lacquered.



SENDING KEY, UQ-800 **\$3.00**
 Size: 5 in. x 3 1/2 in. Shipping weight: 1 lb.

1921 Wm. B. Duck Catalogue.



De Forest Radio Tel. & Tel. Co.
 Jersey City, N. J.





JUNIOR SET

MICHIGAN RADIO CORPORATION

GRAND RAPIDS, MICHIGAN

SPECIAL NOTICE

Treasurer Diane Heathcote has asked to be relieved of her duties in the near future because of the increased demands of her new teaching position. President Paul Gregg would like a member to volunteer to take over for Diane. Talk with him at the Indianapolis meeting.

A SATURDAY EVENING IN LAKE WOBEGON

BY ED TAYLOR

One of the most charming spots in America is the mythical town of Lake Wobegon, Minnesota, "the little town that time forgot, that the decades cannot improve, where all the women are strong, all the men are good-looking, and all the children are above average". Lake Wobegon is a kind of hometown in the hearts of thousands of listeners to A PRAIRIE HOME COMPANION with host Garrison Keillor. This program, which is distributed by American Public Radio, airs every Saturday night and is the nation's most popular radio variety show.

A PRAIRIE HOME COMPANION was conceived by Garrison Keillor when, in 1974, he was assigned by New Yorker magazine to do a story on the last performance of the Grand Old Opry. "I used to hear the Opry when I was a kid," says Keillor. "It's liveness appealed to me then; the program

was charged with excitement above and beyond the music, and after writing about it, I felt appealed to again." Two months later A.P.H.C. began Saturday evening broadcasts in a five state region -- Minnesota, Wisconsin, North and South Dakota, and Iowa. Guests on the first show included jazz pianist, Butch Thompson and tenor, Vern Sutton. They remain regulars to this day. And to this day, Keillor books only those guests who tickle his funny bone or satisfy his wide-ranging musical tastes.

In 1979 A.P.H.C. was broadcast nationwide for the first time as a Folk Festival USA special. The following year the program was offered to public radio stations on a weekly basis. Today the show is carried by 218 radio stations across the country, including Alaska and Hawaii, and reaches two million listeners.

The show's performers originally outnumbered the ticket holders, but today's audiences routinely pack the 74-year-old World Theater, official home of the broadcast in recent years (until plaster started falling from the ceiling). While the theater is being renovated, the program originates at the 1600-seat Orpheum Theater in St. Paul, Minnesota.

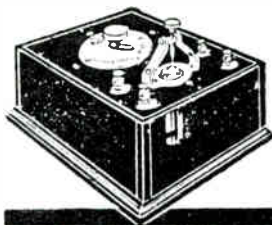
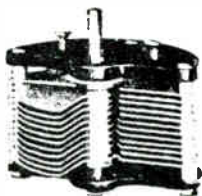
Perhaps if you are free this Saturday evening, you can come along with us to Lake Wobegon. We could have supper at the Chatterbox Cafe, where Dorothy presides and where the coffee pot is always on, which is why it tastes that way. After supper we can browse at Ralph's Pretty-Good Grocery --- "Remember, if you can't find it at Ralph's, you can probably get along without it." Then off to the Orpheum Theater in St. Paul, where we can enjoy A PRAIRIE HOME COMPANION. After the show we can return to Lake Wobegon and go to the Side-Track Tap, the dimly-lit tavern on Main Street, where it's safe to be foolish, where Gene Autry, Bing Crosby, and Lefty Frizell still lead the hit parade on the jukebox --- "Don't sleep at our bar, we don't drink in your bed".

We can spend the night at Arts' Baits and Night-O-Rest Tourist Cabins on Lake Wobegon. In the morning we can attend mass at Father Emil's Our Lady Of Perpetual Responsibility Church. On our way home we can pick up some souvenirs at the Fearmonger's Shop in the Dales, serving all your phobia needs since 1954.

I promise you that this will be a week-end that you will long remember, and you may want to return to Lake Wobegon many times in the future. Tune in Saturday evening for a treat.

(The people of A.P.H.C. have kindly supplied much of the information in this article.)

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Long-Distance
Radio Reception,
Use Only
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Transformers



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for illustrated booklet.*

Audiola Radio Co.
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*We can use a few high-class
representatives for ex-
clusive territory.*

WHY ARE OLD RADIOS . . . ?

PART 3

We have now seen that the REGENERATIVE, SUPER-REGENERATIVE, AND REFLEX circuits were the major types developed to produce maximum amplification from the least number of tubes in order to minimize battery drain. None of these circuits, however, proved to be ideal for a home radio receiver, so the search for better types was continued. As public interest in radio increased and the number of broadcasting stations multiplied, it became imperative that a truly convenient receiver with greatly improved selectivity and sensitivity be developed for the radio fan.

It was recognized early on that TUNED RADIO FREQUENCY (TRF) amplification offered a promising route to this end. Here, however, designers encountered a second major limiting characteristic of early radio tubes and that was their inability to amplify “high” radio frequencies. This problem arose because a triode (e.g., a 201A or 199) couples the grid and plate circuits by way of the capacity that exists between the internal elements of the tube. At low frequencies this was no problem, and audio amplifiers (frequencies below 10kHz) were quickly developed and produced. When frequencies approaching 1500 kHz (the top of the AM dial) are encountered, on the other hand, this capacity produced feedback just as in a regenerative receiver, and the system oscillated. As a result, early tubes were useless for tuned radio frequency amplification until some way of avoiding this regeneration was found.

A number of approaches were taken to avoid this problem, the simplest, perhaps, being the UNTUNED RF amplifier. If the grid and plate circuits were not tuned to the same frequency, then regeneration was not observed. But then selectivity was not improved either. For this reason not many commercial sets were built using this approach, although some of the less common Atwater Kent breadboards are of this type. Occasionally homebrew sets with untuned RF are encountered. I have one from the early '20's which uses a tuned antenna feeding two untuned RF stages. Often an untuned RF stage was added to a regenerative set as a "blocking" tube. Here the object was not so much to amplify the incoming signal as to prevent the regenerative detector from radiating interference from the antenna. Such interference was so bad in some locations of the country, that a national radio magazine **Radio Broadcast** sponsored a campaign encouraging owners of such sets to add this blocking tube to their sets to reduce interference.

A second approach to tuned RF amplification was the LOSSER method. Here a resistance was placed in the grid circuit to prevent the buildup of oscillations. Although this grid suppressor was effective, it reduced the efficiency of the circuit through resistance losses. Nonetheless it was an inexpensive and effective approach to a TRF circuit, and it was widely adopted by radio manufacturers. Practically all of the three-dial battery sets of the mid - '20's are of this type. For instance, the grid suppressor in an Atwater Kent Model 20 is a wire wound unit that will be found attached to the back of each tuning condenser.

Perhaps the oddest attempt to solve the RF amplification problem was that of separating the two processes of amplification and tuning. In circuits of this type, all tuning was done between the antenna and the first tube. Thus, selectivity was achieved first, and only then was the signal amplified through several untuned RF stages. A number of Sparton radios (the Model 89A) are of this type. Even Atwater Kent tried something new for once and brought out the Model 50 which uses this circuit.

The most effective solution to straight RF amplification, however, was the Hazeltine NEUTRODYNE circuit. Here a small variable capacitor was connected externally between the plate and grid circuits. When it was adjusted to exactly equal the internal capacity of the tube, it "neutralized" the effects of regeneration and made efficient RF amplification possible. So effective was this approach that many manufacturers adopted it, and old neutrodyne sets are common. Some of the best known are those of Thompson, Stromberg-Carlson (Model 1) and Gilfillan. Some variations of the basic neutrodyne circuit were also developed, the Bremmer-Tully and the Neutrowound perhaps being the best known.

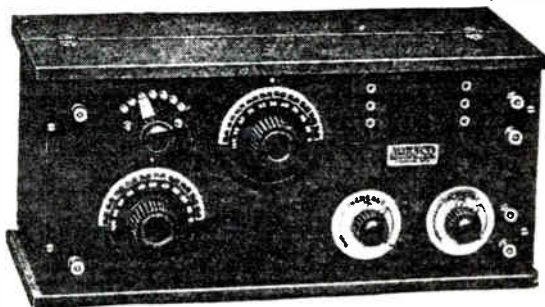
All of these circuits were, however, destined to be swept aside by yet another method of high frequency amplification that was to become the standard of the radio industry by 1930. This was the SUPERHETERODYNE circuit, yet another important invention of Major Edwin Armstrong. In this approach, the troublesome high radio frequencies were entirely avoided by first being converted to low radio frequencies before they were amplified. This was done through the use of a local oscillator that was tuned to differ from any incoming signal by a constant amount called the intermediate frequency or IF. These two signals were mixed in a first detector which passed only the IF frequency, which because it was low (usually 460 kHz but often much lower in early sets) was easily amplified without any difficulty from regeneration. With this circuit it was finally possible to produce a home radio receiver that was convenient to operate, but which also had tremendous selectivity and sensitivity.

In spite of the obvious superiority of the superheterodyne receiver, it was slow to be introduced because RCA controlled its patents and refused to license other manufacturers. Early examples of "superhets" are therefore RCA products or possibly kits produced by smaller companies. Some of the more common of these latter are the Victoreen, Norden-Hauck and the Leutz.

George B. Clemans.

Wonderful Results!

That's what users say they get with **MIRACO RADIO FREQUENCY RECEIVING SETS**. Reception from Broadcasting Stations *over 1500 miles distant* is easy under average conditions.



Price \$29.50

"UNITED" Audio-Frequency Amplifying Transformers



A fine example of precision-workmanship; completely shielded, in shell of original design. Amplifies detected signals, bringing them to phone or loudspeaker, clear, strong, pure-toned.

Price postpaid. . . \$4.50

Try your dealer first, before ordering by mail. Send name and address of dealer with order. Circular free.

UNITED MANUFACTURING & DISTRIBUTING CO.
536 Lake Shore Drive, Chicago, Ill.

Ed Taylor notes that Station WMLF in Indianapolis has started broadcasting (or should that be re-broadcasting!) favorite old time shows. Most central Indiana members ought to be in the listening area for the 8:05 p.m. time slot.

CENTRAL INDIANA

ABBOTT & COSTELLO
DUFFY'S TAVERN
FIBBER M'GEE AND MOLLY
LIFE OF RILEY
THEY'RE BACK ON THE RADIO EVERY WEEK NIGHT
8:05 to 8:35 p.m.
WMLF
BY HOURS OF THE CITY
1310 AM
INDIANAPOLIS, IN.

TONIGHT: THE ALDRICH FAMILY

Odd Fact: More than 58 per cent of the world's radio stations broadcast in English.

C H E L S E A



PRICE \$40.00

REGENERATIVE RECEIVER A REAL BROADCAST RECEIVER

Licensed Under Armstrong U. S. Patent No. 1113149.
For amateur use only.

Write for Catalogue No. 7 of New Chelsea Radio
Equipment.

CHELSEA RADIO CO.
152 5th St., Chelsea, Mass.

RADIOADS

WANTED: Speaker cones with voice coils for AK - F2 - F4 - FC - F7, all the same, voice coil I.D. 1-3/8". H. McCauley, 8471 Patterson Street, St. John, IN 46373. (219) 365-5979.

WANTED: I have been trying to locate a Philco Cathedral, Model 90. Does an IHRS member have one for sale -- in unrestored condition? Please contact Ronald Centanni, 1905 Home Avenue, Metairie, LA 70001.

WANTED: Serviceable Vidicon Type 8758. Also, L & N portable millivolt potentiometer (0-16 and 0-64 mv) Type 8657. Tad Drogoski, 507 Coal Valley Road, Jefferson Boro, PA 15025.

WANTED: Philco Model 90 or 90B Cathedral Radio, AC -1931. I am interested in trying to locate one in either restored or restorable condition. Kenneth W. Stanley, 3502 Appleton Avenue NW, Roanoke, VA 24017.

RADIOADS

FOR SALE - (Lead from Don Johnston) - Beautiful 1937 Delco Radio Console Model R1119 (United Mtrs. Serv., Detroit) Twin 10" spkrs., etc. Excellent condition. \$45 or best offer. You pick up. Contact: Robert C. Fischvogt, 2924 South Park Road, Kokomo, Indiana, phone: (317) 453-5338.

FOR SALE - Atwater Kent Model E. Speaker. Good condition, untested. \$30+shipping. Truetone Model 585. Small tombstone, refinished, untested. \$45+shipping. RCA Victor - Model T-62, page 155 F.O.S. Mint condition, plays weak, no volume response. \$35 + shipping or trade for want items. James M. Seal, 3309 Boatman's Mt. Rd., Morristown, Tenn. 37814. (615) 581-8269.

WANTED - Repairable chassis for 1931 Majestic Model 51 or set with bad cabinet and good chassis. Will pay good price for an Atwater Kent emblem for AK20 or AK48. Also want any available information on Steinite Radios. Also any information on Marshall Radios (Not Silver-Marshall). James M. Seal, 3309 Boatman's Mt. Rd., Morristown, Tenn. 37814, (615) 581-8269.

FOR SALE - New items...Power transformers for sets with 2.5 volt filament tubes. Upright or half shell mounting. For sets with 4 to 5 tubes, \$32.50. For sets with 6 to 9 tubes, \$39.00. I also have lacquer sticks for engraved panels or knobs, \$3.25. Write Peter Yanczer, 835 Bricken Pl., St. Louis, MO. 63122.

WANTED - Xerox of August, 1926, chart "Hook Up with Slagle Radio", showing 1926 line, or xerox of newspaper ad showing the two-dial model. Alan Douglas, Box 225, Pocasset, MA 02559.

WANTED - Blank recording discs, any brand, any size, paper or metal base. Home disc recording paraphenalia, cutting needles, etc. Also, Bayonet UX breadboard sockets, Premier, Mazda, etc. Tracy Sands, 1520 West Juno Avenue #C, Anaheim, CA 92802. (714) 491-8546.

WANTED - Microphones. Prior to 1946. Preferably with station call letters. Wayne Miller, 6023 East 52 Place, Indianapolis, IN 46226. (317) 542-7090.

WANTED - Schematic for Navy RBM and RBO rcvrs. Chart frame for Natl FB-7. HRO Coil Rack. Paul Gregg, 725 College Way, Carmel, IN 46032.

NEXT IHRS MEETING

ANNUAL MID-WINTER INDIANAPOLIS MEETING

Saturday, Feb. 15, 1986

Place: The Sherwood, 6500 South Emerson Avenue

Program Schedule:

9:30 Register for contest and set up for Swap 'n' Sell.

12:00 Lunch. Roast Beef Manhattan with salad and drink.

1:00 Short business meeting. Please bring suggestions and comments for location of summer meet.

1:30 Continue flea market activities.

3:00 Close up and head for home.

Registration:

A registration fee of \$1.00 per person will be collected when you arrive. The meal, of course, will be extra.

Swap 'n' Sell:

We have plenty of space for set-up. Bring your good - bad - new and old radios to keep these goods moving through our society.

Popular Vote Contest:

Bring your favorite radio for display -- any make or model.

IF YOU HAVE QUESTIONS CONCERNING INDIANAPOLIS WEATHER OR ROAD CONDITIONS, PHONE PAUL GREGG (317) 846-3094 OR ED TAYLOR (317) 638-1641.