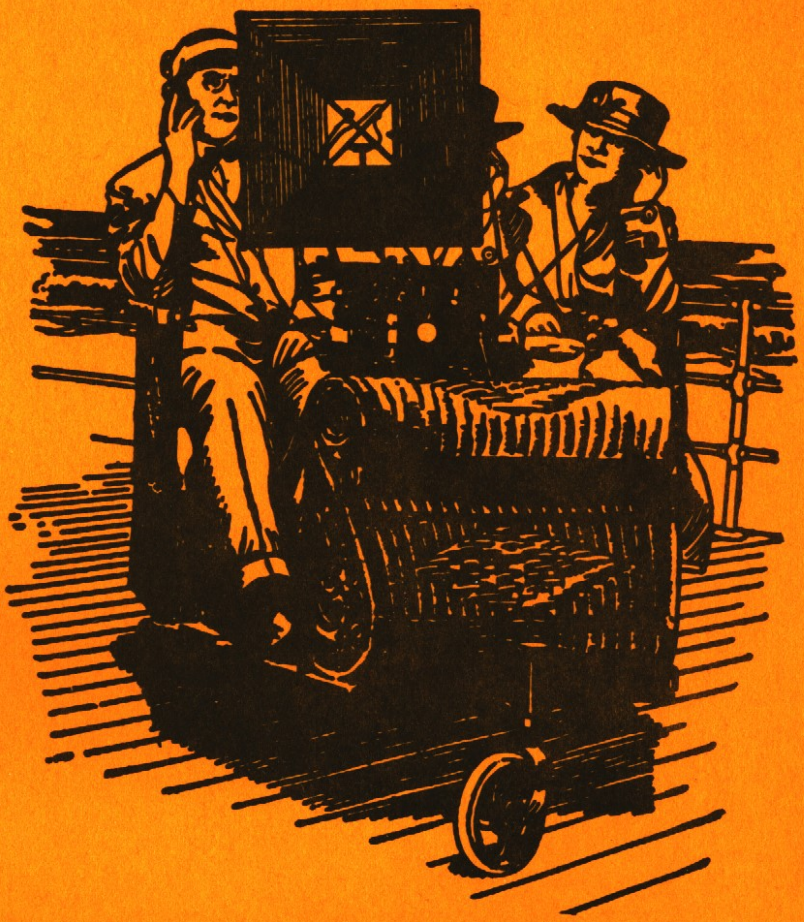
Indiana Historical Radio Society

BULLETIN

Vol. 3 May 1974 No. 2



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Membership Committee	MARSHALL HOWENSTEIN, 807 Elm Dr., W. Lafayette, IN 47906 DELBERT BARRETT, 1517 Pacific Dr., Fort Wayne, IN 46819

SOCIETY RECEIVES INTERESTING GIFTS

A Grebe Cr-13 was donated by R. B. Annis of Indianapolis, Indiana.

The following early amateur gear has been donated by Arthur R. Thiel, Mt. Prospect, IL.

1. Electro Importing Oak Case Condenser, 6" X 8½".
2. E. I. Leyden Jar, capacity one pint, in the original packing container with a price tag of $0.75.
3. E. I. 6-turn spiral helix, 7 inch size on oak board.

The officers and members of the IHRS very much appreciate these fine gifts and wish to express our gratitude and appreciation to the donors.

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The address of the Indiana Historical Radio Society is 245 North Oakland Avenue, Indianapolis, IN 46201.

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FRIENDLY EXCHANGE

FOR SALE OR TRADE – Radio Boys in Gold Valley, $2.50; 1931 23 Lessons in Radio edited by L. Cockaday, 124 pages, $4.00; 1943 Amateur Radio Handbook, $3.00; new J-5-A key, $6.00; Bunnell brass key & Sounder on board, $7.50. Old tubes for sale. George E. Hausske, 1922 E. Indiana St., Wheaton, IL 60187.

WANTED – Two book condensers, three reostats, two audio transformers, one coil and the front panel for my crosley Model X. This one is in bad shape and I need help. Joseph Duray, Indiana University, Box V255 GRC, Bloomington, IN 47401.

FOR SALE – I have twelve books from the Radio Boys series and all are in good condition. Highest bid takes the books. Send no money with your bid. Robert G. Middleton, P.O. Box 1061, Santa Cruz, CA 95061.

FOR TRADE – Fada 8-80, cabinet needs work, some knobs are defective, loop antenna needs new wire and hinge bracket is broken. James Fred, R1, Box 41, Cutler, IN 46920.

WANTED – Cabinet for Freed-Eisman NR-7 and any instruction material for a "Confidence" tube tester. Vernon J. Freichels, R2, Box 18, Sauk Centre, MN 56378.

FOR SALE – McMurdo Silver Masterpiece VI, several other battery radios, horn speakers, B eliminators and head sets in mint condition. Prefer to be picked up at my place. Joseph Shagie, 882 Cleveland Avenue, Amherst, OH.

WANTED – 3-tube Miraco, Radak, Airline, Crosley, Westgale. Grebe, Fitch, Tower cones. AK, Airline, Baldwin horns. Strand - 3053 - Marion, IN 46952.

FOR SALE OR TRADE – Send SASE for list of radios. Also have old magazines and some wireless equipment. D. T. McKenzie 1200 W. Euclid, Indianola, Iowa 50125.

WANTED – Loop for Radiola VIII, also any information on the John Y. Parke & Co., Philadelphia. Robert E. Lozier Jr., 318 E. Houston, St., Monroe, NC 28110.

FOR SALE – Crosley 50-5 case and panel, Whitestone Five for inside or will buy someones restorable case, panel and dials. Rick Ammon, 410 West 6th Street, Mt. Carmel, IL 62863.

WANTED – UV 850 Screen Grid "50 Watter" for my collection. State price and condition. Leo L. Gibbs W8BHT, 701 Brookfield Road, Kettering, OH 45429.

FOR SALE – Several battery radios, headsets, speakers and other accessories. Send SASE for list. Del Barrett, 1517 Pacific Drive, Fort Wayne, IN 46819.

WANTED – Early Crystal Set, Information and parts of any size and description for a 1913 Marconi 103 Tuner that I am reconstructing. Gary A. Vierk, 2505 Kickapoo Drive, Lafayette, IN 47905.

The Bulletins are being published in February, May, August and December for the Calendar year of 1974. Bulletin material must be received no later than the 25th of the month preceeding the month of publication. July 25th is the deadline for material to be put in the August Bulletin. Address all Bulletin to the editor so I can begin the next issue.

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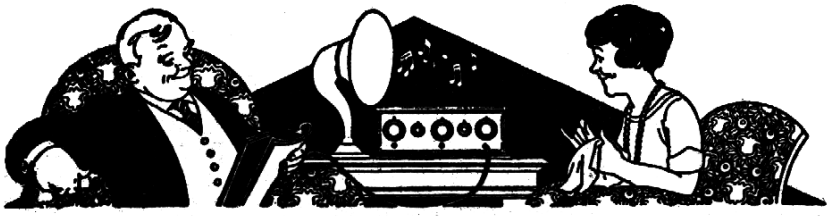
Membership applications were included in the last Bulletin. It is hoped that each member will find time to ask a friend to join our Society and share in this exiting hobby.



Enjoy your evenings at home, keep the family together. Are they interested in music, drama, science or education? Do the young folks like to dance? A good radio receiving set draws the family closer with a common interest and attraction.

Attempting to Rejuvenate Old Audios

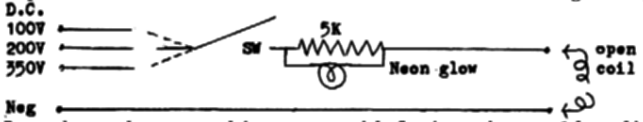
Much has been tried, mostly unsuccessfully, to repair and 'heal' old audio transformers. There is no sure way, because there are too many exceptions to the rule. There are other ideas, mine being one, that are still not wholely successful. However, through all this trial and error over a period of years, someone, somewhere, will come up with an idea that is miles ahead, and perhaps infallible. It may be today, or it might not be for years. Until that time arrives, you might enjoy picking apart my ideas, and entering into the field of competitors looking for the perfect system. I have been successful more times than not, so there must be a trace of the right idea here somewhere!

Let's first list the dont"s:

1. Don't use A.C. It alternates, has high amperage, and will burn up that spider-web fine #40 wire like an overloaded fuse. A rule of thumb is to never use AC on <u>any</u> battery set except to light the inspection lamp or soldering iron.

2. Forget the huge capacitor (pardon - <u>condenser</u>), as the voltage is not controlled. What goes in - comes out. Nothing more or less. The amperage is not controlled, and can also destroy that fine wire.

What is needed is to create an arc to either create a carbon path between the broken ends in the winding, or to weld them together. Too much current will react like a blowing fuse, defeating forever our aim. Remember, the current in one of these old windings was originally measured in milliamps, probably not over 20. Voltage was high. So, voltage is the solution, and pure, non-pulsing, D.C. voltage. In the schematic I suggest from 100 to 350 volts. More or less can be tried. But, start with the lowest voltage. The switch is momentary-contact, for instant release. The load-limiting resistor is 5k, assuming a coil resistance of 250 ohms. If the coil was originally hightr, use Ohms Law for determing the value of the resistor. This resistor is to absorb voltage the instant the coil is healed, and the neon glow bulb across this resistor lights immediately upon healing the coil. It will not glow as long as the coil is 'open', or after the switch is released. Use a glow bulb with a firing voltage of 65 or less. To operate, press the switch for not over a second. If the light does not glow, try it again - several times. Then, increase the voltage, and repeat the process. The instant the light glows, SHUT 'ER OFF, and feel smug - because you did it! If you don't succeed, remember that you started with nothing, and you can always rely on Ghirardi or Middleton and resistance coupling of the stages. (Also, the miniature Japanese audios sometimes fit inside the old originals).



Remember, do everything to avoid frying these old audios into scrap metal. One of these days someone will come up with a really good way to work with these things. How about it, brains??

Regards from Colorado-

John Hubble

THE CENTURY MAGAZINE

VOL. LXIII. MARCH, 1902. No. 5.

MARCONI AND HIS TRANSATLANTIC SIGNAL.

I. PREFATORY NOTE.

BY GUGLIELMO MARCONI.

WIRELESS telegraphy has of late attracted more interest and attention than perhaps any other problem in electrical engineering.

Its progress has not been slow. Five years ago my system worked satisfactorily over a distance of about two miles. Since then its range has been rapidly increased, until, a few months ago, by means of improved and attuned apparatus, a distance of over two hundred miles was successfully bridged, and wireless communication at this distance is now an every-day occurrence.

It seems to be a matter of popular belief that any receiver within effective range of the transmitter is capable of picking up the messages sent, or, in other words, that there can be no secrecy of communication by my system.

Were this so, a very important limitation would be imposed upon the practical usefulness of the system, but by the introduction of important and radical modifications in the original system, and by a systematic application of the principles of electrical resonance, this objection has, in very great measure, been overcome.

Mr. McGrath gives a straightforward popular account of the general methods employed, and as complete a history of the development of the system as is possible in the necessarily somewhat limited space at his disposal.

A certain commercial application of my system has already been achieved.

In all, seventy ships carry permanent installations, and there are over twenty land stations in Great Britain and on the continent of Europe, besides several in this country. To what further extent the system may be commercially applied is not easy to foretell. My recent successful experiments between Poldhu and St. John's, however, give great hopes of a regular transatlantic wireless telegraph service in the not too distant future.

II. AUTHORITATIVE ACCOUNT OF MARCONI'S WORK IN WIRELESS TELEGRAPHY.[1]

BY P. T. McGRATH,

Editor of "The Evening Herald," St. John's, Newfoundland.

AT the marine station on Signal Hill, at St. John's, Newfoundland, on Thursday, December 12, 1901, at 12:30 P.M., Mr. Marconi received distinct and unmistakable electric signals, transmitted through space without wire or cable or other visible or tangible agency, from his station at Poldhu, near Penzance, in Cornwall, England. The whole plan of signals was arranged before he left England, and was carried out in accordance with the preconcerted schedule, as I can testify from having been shown by Mr. Marconi the press copies of his communication in his official letter-book.

That Newfoundland enjoys the distinction of having been the theater of this unequaled scientific development, she owes to her advantageous geographical position, as the "half-way house" of the two hemispheres, the nearest point in America to the Old World. When the first Atlantic cable was laid, in 1858, Newfoundland was its natural western terminus. To-day, for the same reason, Marconi attempts his experiments here.

[1] The substance of this article is derived from talks twice a day with Mr. Marconi during the three weeks of his stay at St. John's. The inventor has also kindly read the proofs with great care.—EDITOR.

GUGLIELMO MARCONI.

VINTAGE TUBE VARIATIONS

by

Robert G. Middleton

Collectors often look for vintage tube design variations. For example, Figure 1 shows three variations of the WD-11 tube. These are: brass base with tipped bulb; bakelite base with tipped bulb; and bakelite base with tipless bulb. There are four variations of the '99-type tube, as seen in Figure 2. These are: brass base with tipped bulb; brass base with tipless bulb; bakelite base with short pins and tipless bulb; and bakelite base with long pins and tipless bulb.

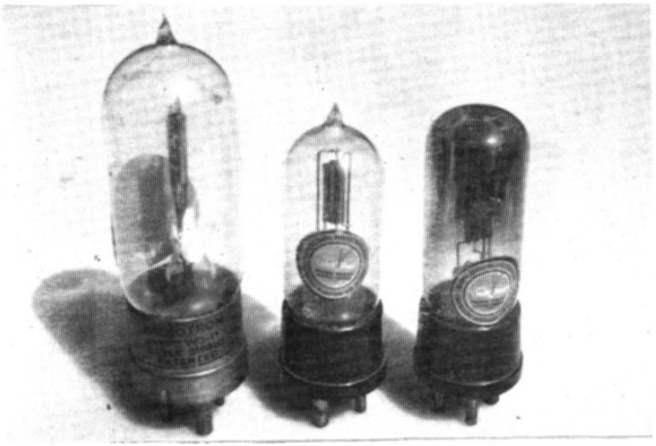


Fig. 1 Three versions of the WD-11 tube.

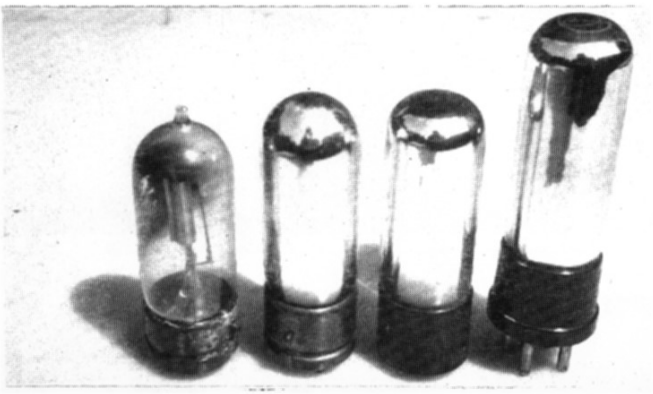


Fig. 2 Four versions of the '99-type tube.

Restoring Antique Radio Receivers

Coherers

Marconi-type receivers, such as the one illustrated in Fig. 7-11, employed coherers instead of crystal or tube detectors. A coherer consists of a glass tube with metal filings contained between a pair of metal plugs, as shown in Fig. 7-12. The glass tube may be broken, and the filings may be lost. Repair is comparatively simple; a replacement section of glass tubing can be obtained from a chemical supply house, or even from a drug store. To cut the tubing to correct length, score a groove around the circumference with the corner of a file. Then, the tubing can be separated cleanly at the groove by applying pressure. The filings that are employed may be iron or a mixture of silver and nickel. Earlier coherers used iron filings; however, these filings tend to rust with the passage of time.

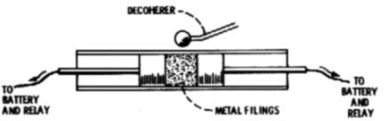


Fig. 7-12. A type of coherer as used by Marconi to detect wireless signals.

The filings are normally slightly loose in a properly adjusted coherer. In the example of Fig. 7-11, an adjustment is provided to obtain optimum operation. The resistance of a coherer will be 0.5 megohm, or more, in its resting condition. When a high-frequency signal is applied, the resistance will suddenly drop to several hundred ohms, or less, depending on the strength of the signal. After the filings have cohered, they will retain their low resistance after the signal impulse has stopped. Therefore, a tapper is provided that strikes the glass tube lightly and jars the filings apart; this is called a *decohering* action. The tapper is a form of electric bell that is suitably mounted with respect to the coherer. When code signals are being reproduced, the bell will ring for the duration of a dot or of a dash.

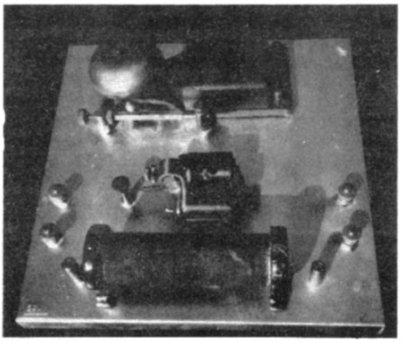


Fig. 7-11. Receiver using a coherer detector.

Society stationary is available upon request for only $2.25. Send to IHRS office in Indianapolis, IN.

1924

INDIANA STATE MUSEUM

If you are in the Indianapolis area be sure to see the IHRS Museum Exhibit. The display is located in the INDIANA STATE MUSEUM, 202 North Alabama St. Indianapolis, IN. The Museum is open on weekdays from 9 AM to 5 PM and on Sunday from 2 PM to 5 PM. Admission is free.

news roundup

ED TAYLOR (Indianapolis, IN) acquired a 1925 Kardonstrip receiver. Ed also found a Jack Armstron Secret Bomb Sight to add to his collection of radio giveaways.

RICK AMMON (Mt. Carmel, IL) added a pair of Crosley 52s and three pair of headphones and the instruction book for the 52s - all in one buy.

ROBERT G. MIDDLETON (Santa Cruz, CA) has reproduced some very beautiful marble-based keys and components.

GLEN ROGERS (Lafayette, IN) located a pair of AK 10s with speakers and tubes. Both had been stored in attics since their use by the original owners. It all started in a camera shop when the AK owner overheard Glen mention his favorite hobby to the camera shop owner.

MARSHALL HOWENSTEIN (West Lafayette, IN) found a very nice Kolster 6 tube TRF on a trip to Southern Illinois.

JIM FRED (Cutler, IN) now owns a Philco 511 and a Darad tube tester. The Philco was the first AC made by the company.

LEO GIBBS (Kettering, OH) bought at a local auction a telegraph key and sounder practice set made by E. Jones & Bros. of Cincinatti. Note - Not one piece of brass in it; it is all made of iron parts with a cast iron base for the sounder and key.

ROSS SMITH (Elkhart, IN) has restored a very early telegraph sounder to beautiful condition.

GARY VIERK (Lafayette, IN) is busy reconstructing a 1913 Marconi 103 Tuner using some of the original components.

GEORGE E. HAUSSKE (Wheaton, IL) found a 1925 Thorola Islodyne accompanied by a pair of 21" Music Master speakers. The dealer thought he had a battery stereo. One of these speakers is available for trade.

JOHN NOBLE (Loveland, CO) is known as that "radio nut" in his new location out west. With his Honda he finds more radios at less cost per mile than the larger brands. He found a UV 199 in an old camp dump at the 11,000 ft. mark. When the snow melts he plans to go back up there. John also has a DeForest F5 in mint condition.

DO NOT MAIL THIS

Return all coupons to store. You may deposit one coupon daily.

Radio Power From the Wind

List Price As Shown

$44.50

Genuine De Luxe Wincharger

Play Your Radio Night and Day for Less Than One Cent a Week!

Wincharger only $15.00 if you buy it along with one of our 1937 model

NEW 6 VOLT GRUNOW or SENTINEL B and C BATTERYLESS RADIOS

Drawing at Store Hallowe'en Night. Not Necessary to Be Present. Lucky Winner Will Be Notified.

(Over)

ADVERTISING IS FREE TO ALL MEMBERS

Participant must live in Clinton County, Indiana, and be 18 years of age or over. Use same name on all coupons. Deposit this card at our store

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Name _____ **Town** _____

R. F. D. or Street _____ **State** _____

FREE

CHOICE
One Genuine Wincharger
One Model 532 Grunow Radio
One $25.00 Credit on Grunow Refrigerator

Have you a Refrigerator? ..... **Yes** ____ **No** ____

Have you a Radio? ..... **Yes** ____ **No** ____ **How old?** ____

Have you a Washing Machine?.... **Yes** ____ **No** ____ **How old?** ____

Stove used for Cooking—Gas ____ **Kerosene** ____ **Coal** ____ **Electric** ____

Do you have Electric Lights? ..... **Yes** ____ **No** ____

CARD MUST BE COMPLETE

McKINSEY RADIO SHOP, 208 N. Jackson St.

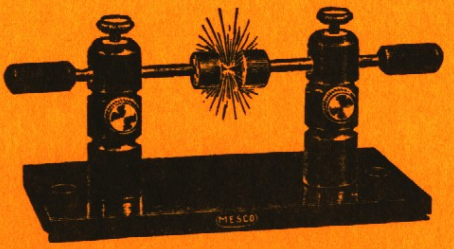
Frankfort, Indiana

(Over)

Manual of Wireless Telegraphy

1909

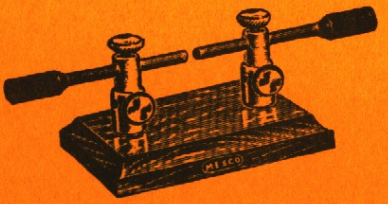
HIGH EFFICIENCY SPARK GAP



This spark gap is adapted for all stations from the smallest up to ¼ K. W. capacity. The base is of polished hard rubber, and the standards are of hard rubber composition of the highest insulating properties. The hard rubber ends on the brass rods permit the length of the gap to be varied, while sending. Spark terminals are of zinc, as used by commercial stations, and are renewable.

List No.		Price.
465	High Efficiency Spark Gap	$3.00

ZINC SPARK GAP



Extensively used for coils up to 2-inch spark. Base is of polished oak, standards are nickel plated, and spark terminals are of zinc. Hard rubber ends are provided so that the length of the gap can be varied while sending.

List No.		Price.
467	Zinc Spark Gap	$0.60