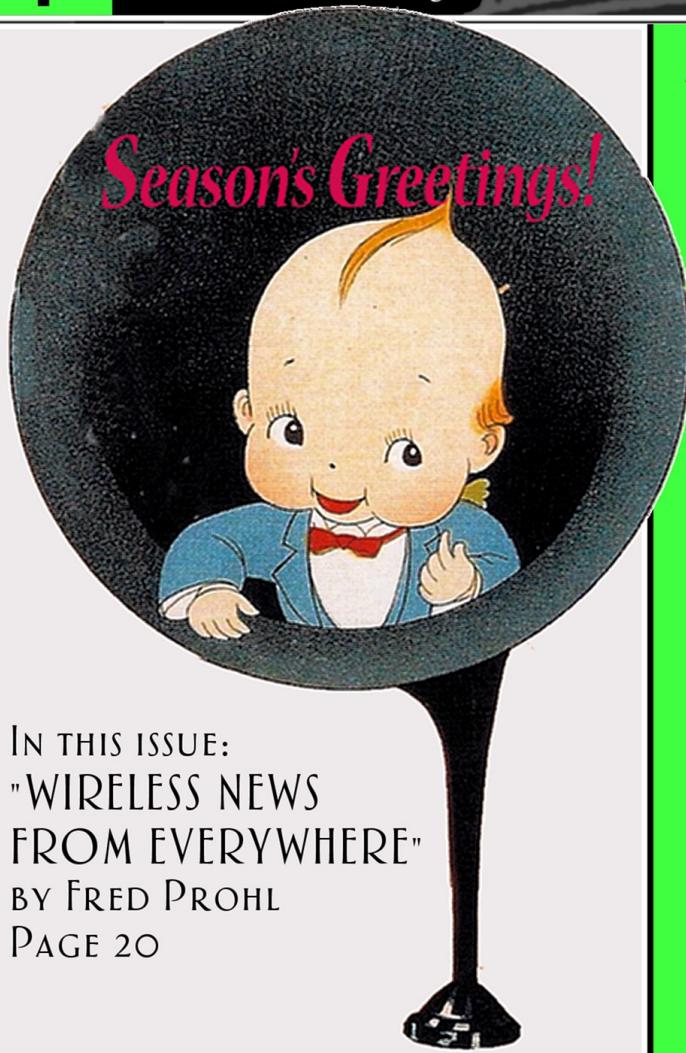


VOL 49
WINTER
2020
No.
4

The
Indiana
Historical
Radio Society

BULLETIN

Season's Greetings!



IN THIS ISSUE:
"WIRELESS NEWS
FROM EVERYWHERE"
BY FRED PROHL
PAGE 20

The Bulletin
A publication of the Indiana Historical Radio Society
Forty-nine years of documenting early radio.

ALSO IN THIS ISSUE:



IHRS 50 YEARS



Thompson 50



COILDEMIC!



WOZ History

The Indiana Historical Radio Society Bulletin

Winter 2020

The Cover: Thank you Bill Morris for the Winter 2020 Bulletin Cover.

In This Issue:

John Raskauskas follows recommendations from the Antique Radio Forum (ARF) with his restoration of a **1925 Thompson Battery Radio**—page 4.



Ed Dupart discusses the repair of **RF coils** for two radios.—page 16

Fred Prohl talks about searching 1920's newspapers for details of station **WOZ Richmond, Indiana**—page 20



Time To Renew Your Membership!

Annual membership (January 1 through December 31) in the Indiana Historical Radio Society is \$15.00. Send your payment written to Indiana Historical Radio Society to: **Don Yost, IHRS, 3814 E 400 N, Windfall, IN 46076.**

Include your current mailing address, if not on your check, and your email address, if you have one. Membership questions? Contact Don at: dearsir@netscape.com or call him at (765) 945-7014.

Welcome to 2021!

**It is time to leave 2020 behind and
look forward to 2021 and the New Year!**

Boy oh Boy do I miss our Indiana Historical Radio Society meetings! What I miss the most is the opportunity to get together with members who have similar interests in all that is related to vintage radio: searching for, restoring, displaying, entering contests, research and documentation, and the list goes on. Unfortunately as we look forward into 2021, the crystal ball is fuzzy. At this time, due to Covid restrictions, the IHRS has not scheduled a meeting for 2021.

A discussion topic for many of us during 2019 was how to turn around our declining membership. Twelve years ago the IHRS membership was above 300, and at the end of 2019 we were at one half that number. And now it is looking like 2020 may reduce our membership considerably more. 2020 has been a real kicker with no IHRS meetings scheduled for the year—that translates into no opportunity to get together and talk about “radio”.

For the IHRS to move through 2021 and into 2022 and the future, new leadership and new ideas are needed. During the recent past the IHRS has welcomed new members, and it will be up to our new members to organize and take the lead for the future of the Indiana Historical Radio Society.

Concern for the future of the IHRS is minor compared to the concern our members have for their families, neighbors, and co-workers during this pandemic. All of us have experienced covid 19 in ways that has changed our lives. I can say for our Society that our sympathy goes to members who have lost family members and friends to the virus.

Fred Prohl, Editor.

Restoring A 1920's Thompson Battery Radio

by John Raskauskas, November 2020

Given a 1920's battery radio to bring to life was a first time experience for John Raskauskas . For technical and restoration advice he turned to the Antique Radio Forum. What follows is John's response to the advice given by members of the forum and a written record of his progress with the radio.



Hello All,

This beautiful 1925 Thompson "V-50 Grandette" Neutrodyne and Music Master horn-speaker was recently given to me by an older friend and his wife after I had refurbished it for them months before. Was very surprised and grateful. Have known them since childhood in 1969 when they moved into my Dad's old suburban Kokomo neighborhood and remember when they got this radio soon afterward. They originally told me that they had pur-

chased it very cheaply at a garage sale, but not long ago Mr. Stroud remembered that it had been given to him by an elder friend. It sat on top of an antique piano in their family-room and I was really fascinated with it as I'd never seen one before. Would periodically suggest that he build a power supply for it so that we could hear it play, but due to work, family, and other responsibilities, that never was done. It made such an impression on me at that time that I used to draw pictures of it and that type

radio during idle time at school, some of which I still have... Pretty strange that many years later as a young adult I discovered that my blood grandfather whom I knew nothing about was a Radio-Electrician for GE in Ft. Wayne, IN back in the late 1920's and had "tinkered" with radios as a teenager as well as being an early HAM operator.

After they had moved into a larger home several years back, this radio ended up on a shelf in basement. Have refurbished around 300 radios for collection (mostly early transistor sets) over the past 11 years, but had never worked on a radio of this vintage and was still interested in it after all those years, so while helping him clean out some unwanted items this Spring offered to attempt to repair it for them and build a power-supply myself.

Found out that he also still wanted

it working, so it made its first trip home with me.

Hadn't seen "under the hood" since childhood and was just amazed when I opened this "treasure-chest" ! Had forgotten that it looked nearly new inside and along with the power-switch key on its small brass medallion, there were two very rare UV-202 experimental transmitting tubes in RCA UV-201-A boxes ! The tuning caps as well as rheostats both rotate freely and the rheostat windings themselves show no wear or oxidation.

Had read all that I could find online about these radios and was really hopeful that I could get this beauty "singing"! Very thankful that the original capacitors and grid-leak resistor were still good. Several fellow members of ARF (antiqueradios.com) offered suggestions which really helped with the effort. The first interstage



transformer primary was open and it had been replaced long ago with a non-original part. From what I had read and heard, this was a common failure. Used the suggested P-T156 transformer from Antique Electronics Supply which worked well.

Report follows:

A bit accomplished with chassis still in cabinet...

Checked all tube filaments---V1 resistance was very erratic, but the other four measured solid at 2.5 Ohms each.

Decided to go ahead and spend a few minutes on the tube with erratic filament resistance readings. After wrapping tube carefully in soft foam-rubber and placing base-up in old coffee-cup, used Hakko de-soldering gun to pull solder from filament pins and then carefully re-soldered. Cleaned pins thoroughly with Isopropyl alcohol

and small pieces of paper napkin. Cold resistance now right at solid 2.5 Ohms along with the others, thankfully!

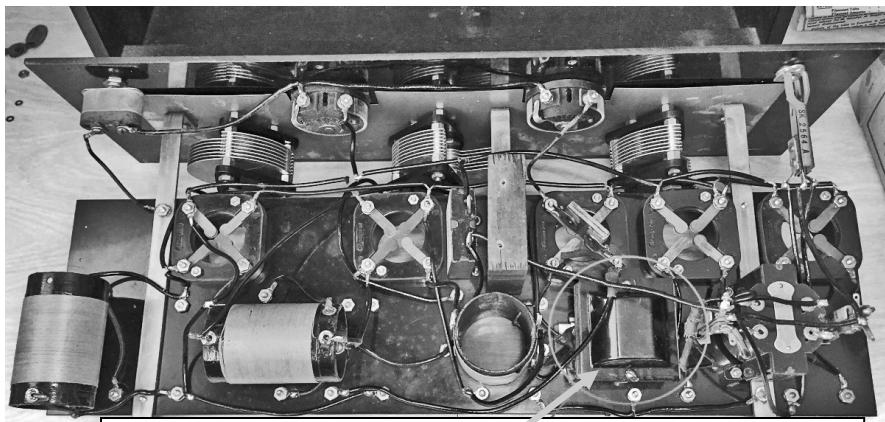
Rheostats appeared to be working fine using Ohm-meter.

Treated all tuning cap rotor terminal contacts with a drop of De-Oxit Gold as two of them were slightly erratic. Rotated knobs back and forth a few times afterward and all now have stable continuity. Also, two seemed to rotate too "freely", but was able to adjust tension to correct.

The grid-leak resistor appeared good---measured solid 4.4 meg-Ohms...

Noticed on the tube boxes that GE made them for RCA---never knew that!

Pulled chassis and found that the primary of first interstage (proper term ?) transformer at output of detector tube was open and



Primary winding open—a non-original replacement from long ago.

that it had been replaced with a non-original part long ago. They had spliced in the leads and wrapped connections with that old "friction-type" electrical tape. See picture. The original Thompson second audio transformer tested fine.

Checked original Dubilier bypass condenser with Ohm-meter and was amazed that it still reacted normally without measurable (using VOM) leakage ! Using LCR meter it measured 2.2 uF with ESR of 3.3 Ohms.

Removed the very intermittent



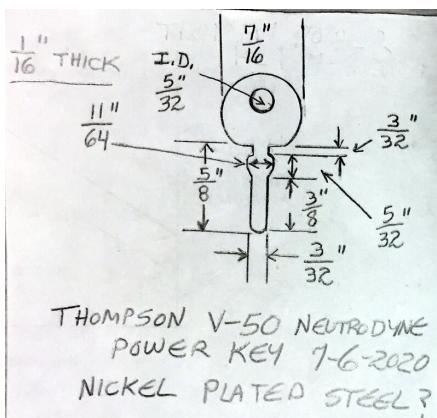
The Dubilier bypass condenser.

and erratic filament power key-switch to disassemble and clean. The heads of the two screws which held it together were potted in a hard, black substance which crumbled into a fine messy powder once chipped out carefully with tip of utility knife blade. Once apart, cleaned both the brass contact strips and beryllium copper "wiper assembly" with a special soft eras-

er designed for cleaning gold PCB "fingers" and then isopropyl alcohol. Applied a thin, even film of DeOxit Gold liquid to all internal electrical contacting surfaces. Was impressed by the design and quality of this very old switch which had Patent dates of FEB 28-11 & SEPT 8-17. After reassembly, it thankfully worked perfectly with solid continuity.

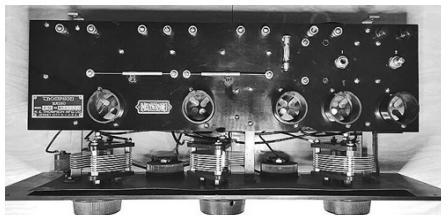
See pictures below:

After reading several comments on-line about missing keys and broken power switches (owners didn't realize that they were designed to use a key and thought that toggles broken off !), decided to make a careful tracing of original key and add dimensions for those who might want to attempt making one. Quick & sloppy, but



necessary info should be there.
Feel free to share with others...

Carefully cleaned all tube socket contact surfaces with special soft eraser we used years ago at work to clean gold edge-connector fingers on PCB's---see picture... Took some time to bring back shine. Then carefully vacuumed out all the residue and cleaned surfaces with Isopropyl alcohol. Did the same for tips of tube pins before



installing...

Inspected and tightened all mechanical connections and verified all electrically while "reverse-engineering" to generate an accurate schematic.

Completed a working power supply. Was scrapping out an old



Marantz receiver and discovered that its power transformer had high enough voltage output on one of the secondary windings that it only had to be rectified and filtered to use for B+. Used a resistive voltage divider for the 45 Volts. Made chassis out of scrap 1/4" thick plastic panels. Used well regulated and filtered 5V 2-amp brick power supply for filament source and 3-"AA" holder for "C" supply...

To perform an initial test before replacing open 1st interstage transformer, used ARF member's suggestion and added 22K resistor between detector plate and 45 volt source, then coupled plate to 1st audio grid with .1 uF cap. Also thought it might help to add a 100K resistor from "C-" supply for bias. Reinstalled chassis into cabinet.

Not having the horn speaker here, used ARF member's idea of using audio-output transformer with regular speaker. Went through transformer stash and picked out the one with highest input impedance and installed it inside the cabinet of a small, plastic-cased speaker from a cheap stereo system. This test-speaker will also come in handy for other tube-radio projects...

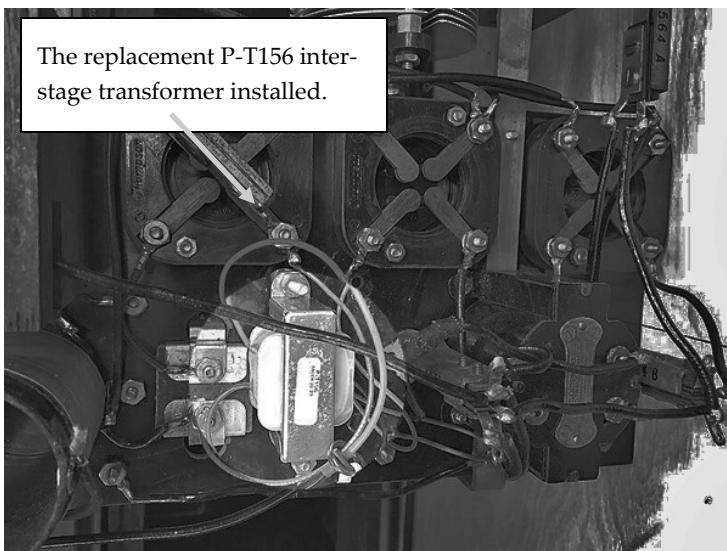
Attached lead from antenna post to finger-stop on old 1920 W.E. dial candle-stick phone I installed

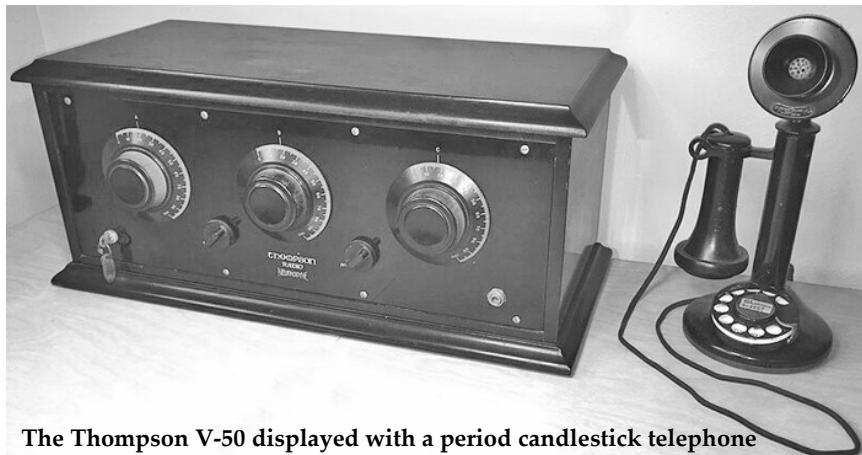
on work-table to celebrate its 100th b-day earlier this year...

Made certain all connections secure, verified all voltages at terminal posts, made sure rheostats at minimum, and inserted key to turn on for first time in at least the 50 years friend has owned it. Slowly advanced the rheostats until I heard sound from speaker. Carefully rotated dials to where I thought our strongest local station might be, but nothing... Adjusted rheostats a bit higher, played with dials again and faintly heard signal. Adjusted other two and it thankfully came in strong and very clear!!! Was so excited, felt like dancing a jig ! Called the owner to let him hear it playing over the phone--he and his wife were also both excited! He gave permission for me to purchase two P-T156 interstage transformers--one to

replace the open unit and the other to have on hand if the original Thompson 2nd unit fails... Before cleaning work area, dialed the rheostats up further and was able to receive another local station. Am concerned about shortening the life of tubes, so try to keep both as low as possible...

Completed & verified an accurate schematic from "reverse-engineering" this now working radio using the somewhat similar (but with significant differences) Freed-Eisemann NR-5 drawing as a starting point. Neat how you can select either one or two stages of audio amplification by simply moving a good-looking nickel-plated brass plug between two 1/4" jacks on chassis panel ! Plate voltage to 2nd is disabled when only one stage is utilized conserving your "B" battery... Took MANY





The Thompson V-50 displayed with a period candlestick telephone

hours using Microsoft Paint as I don't have any "specialty software"... Am thankful that it turned out so well. If anyone wants the higher-resolution original, please let me know. It is to be freely shared with anyone who might want it... Also, not having the original 1st interstage transformer, didn't have the terminal numbers to include on drawing...

Removed chassis again to install the P-T156 transformer. Was surprised to see that the mounting hole spacing was same as chassis ! When non-original part was installed long ago, stand-offs were added to give clearance to grid-leak resistor/cap assembly beneath, so used them also for new transformer. The holes in chassis were worn larger so that head of screw nearly pulled through. Had some old gray phenolic washers which were used for transistor heatsinks that solved problem neatly.

Attached 3 of the 4 wires to ring terminals after removing from connection points. Had to splice the "+45" line as lead wasn't long enough to reach...

Assembled chassis into cabinet once again, installed tubes, applied power, and after playing with knobs awhile radio began working. Audio output MUCH louder with the P-T156 transformer installed ! Audio quality not bad, but does have a somewhat different tone to it---hard to describe... Noticed on the Thompson connection chart that the B+ center terminal could be attached to junctions of B-batteries to give 22.5, 45, 67.5, or 90 Volts---said to connect as indicated by best results. When reducing B- leg of power-supply voltage divider resistance to give approximately 25 Volts, the performance and sound quality noticeably improved---so soldered an additional resistor in parallel to keep

this level... Carefully & gently cleaned top of chassis with slightly water-dampened then dry soft cotton cloth pieces.

Returned radio to owner the following day on the way to Kokomo to help Dad with a couple projects. Had called Mr. Stroud earlier and asked him to measure resistance of horn-speaker driver coil and it had checked okay. When I arrived, we set everything up on the dining room table and strung a temporary antenna from the chandelier across hallway to far side of living room. After warm-up, radio received local station fine. Was amazed on how good the "Music Master" horn-speaker sounded as I'd never heard one before---not as "tinny" as expected ! Both owner and his wife were thrilled to hear it work which made the effort well worthwhile---and I was also excited since I'd wanted to hear it play ever since they got it around 50 years ago!

Months later, while visiting this old friend and his wife again to show them the '56 Chevy Delco car radio (which he had also given me awhile back) that I had refurbished and built a cabinet for recently I was told that they had decided to give me this beautiful Thompson ! Was very surprised, but grateful since I've really liked this radio since childhood (have know them 51 years)... His wife mentioned

that she wanted me to put a note inside stating that it should go to a museum upon my demise---sure hope I know someone who will at that time ensure that it and many other radios in collection make their way to a place where they're appreciated (if any are still around!)...

Mr. Stroud was an Audio Engineer at Delco for many years and is now in process of setting up to perform a detailed analysis of the horn speaker's audio characteristics to satisfy his curiosity and said I could have the speaker when this is complete. Said he'd also give me a copy of his report to share. Was able to help a bit with this in the early stages and it looks like it will be an interesting endeavor...

After posting request for help in the Cabinet Restoration forum of ARF and receiving suggestions, remembered having an old bottle of Howard Restor-A-Shine Super-Fine burnishing cream in kitchen cabinet which was left by previous residents many years ago and after reading that it was safe for both shellac and lacquer, gave it a try to remove some old white marks on top of cabinet. It worked so well that I did the entire top surface. Man, that original finish and wood grain is beautiful after removing almost a hundred years of residue!

Had been a bit concerned about

cleaning the knobs on this beautiful antique. Nearly 100 years of crud in the grooves. Took a chance with a "Stubby" (cut-down bristles) toothbrush and water. Tried in a small area first and with a LOT of careful but vigorous brushing grooves came clean and looked fine, so continued. Took several hours of going over & over the grooves on all knobs to complete task and changed "brush dipping" water when dirty. Was very careful to avoid the painted graphics on the skirts and cleaned them (and insides) by gently wiping with water dampened then dry soft cotton cloths. They turned out very well and look MUCH better ! Felt a little uncomfortable at start knowing that I was removing "historical dirt", but was very glad after seeing results... Notice picture of the dirty water that dripped off of one knob---appears that the dirt formed an "image" in the small "puddle". Guess I'm a bit crazy and have a hyper-active imagination...

Am now looking for a narrow old table with drawer(s) to fit in the only available spot left in family-room for display (36" X 15").
(John found a table and placed the power supply our of sight in the table. See page 28 for a picture. Editor)

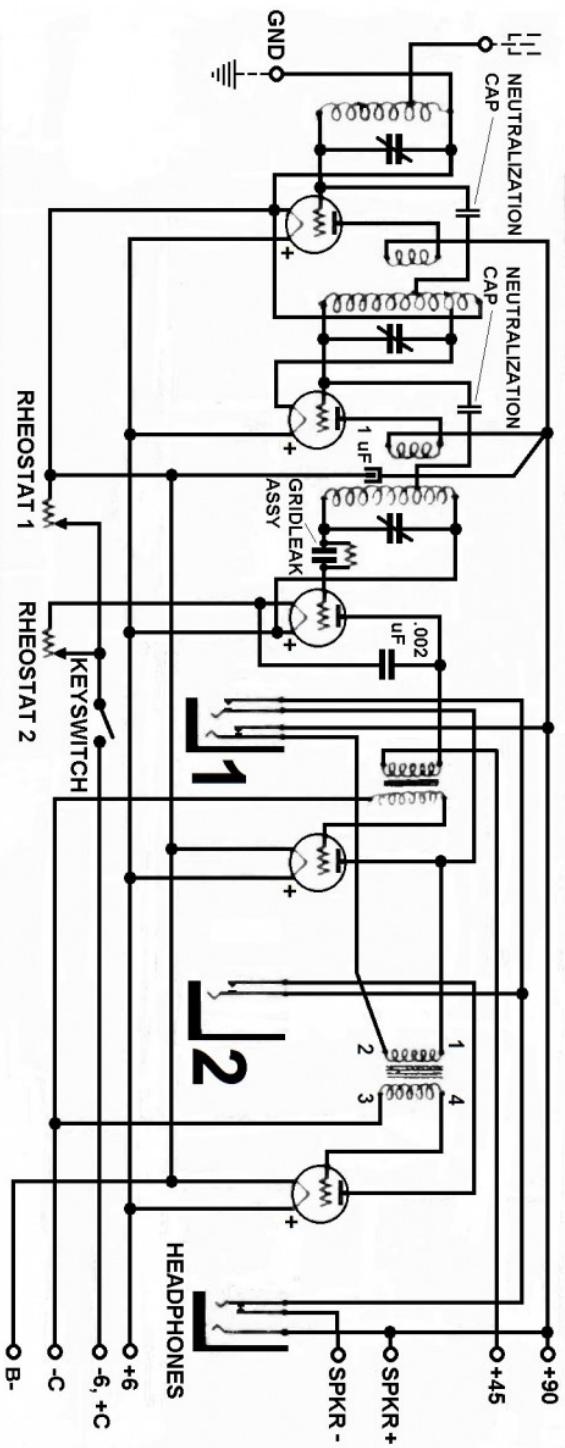
Just phoned the Stroud's the other day to wish them a safe trip to

Florida for the winter and Mr. Stroud asked if I had tried it yet here with the horn speaker that I recently brought home. Had done more detail cleaning and was going to wait until I could find a table to fit within "assigned spot" in family-room to hook it up for operation, but looking at this beautiful antique sitting on bench, decided to try it today...

Used recently disconnected telephone lead-in cable from house to pole as long-wire antenna via a .01 uF capacitor to antenna binding post and the home-made power supply built months before.

After power-up, "played" with rheostats and tuning and was actually able to receive several stations including my favorite oldies station, WHBU 1240 in Anderson, IN some 30 miles away ! Selectivity not great initially and could also clearly hear a strong local at 1260 coming in with it. But after being on a long while and with more "tweaking" of controls, it improved significantly and the local could now be tuned out ! Audio quality flat and a bit trebly as expected, but room filling volume. Very impressed with how it performed this time as when I first completed it, it would only receive a couple strong locals. Maybe the tubes are "waking up" as I've read about???

Am still amazed at the very



THOMPSON V-50 NEUTRODYNE "GRANDETTE"

ALL TUBES UV-201-A TYPE. NOTE: INSERT NICKLE-PLATED BRASS "PEG" INTO EITHER JACK MARKED 1 OR 2 ON CHASSIS
 TOPSIDE TO SELECT DESIRED NUMBER OF AUDIO AMPLIFICATION STAGES. Actual radio "reverse-engineered" to generate schematic by xrhonda91.
 Completed 7-14-2020. TO BE FREELY SHARED!

The Music Master horn speaker disassembled for cleaning.



good condition (for age) of the Music Master horn speaker---disassembled and took a few pics to show off parts after careful detail cleaning with water-dampened, then dry soft cotton cloths. Used only a dry soft cotton cloth on wood horn itself to avoid risk of damage to finish. The nickel (or chrome ?) plated horn ring appears to have some type of coating (perhaps lacquer ?) which has discolored and worn off in areas.

Tried treating a small area with Mother's carnauba wax with mild cleaner and it only shined it up a bit...

Uploaded a short video (using phone) of radio playing to storage

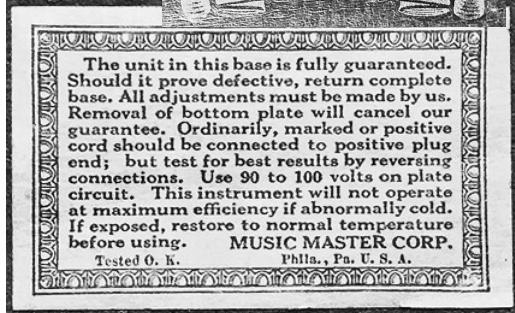
site if anyone would like to view it. It is a large file (around 112 mb) and has to be downloaded to your device before playing: <https://app.box.com/s/l3ugndsjvc13lthj1exiw4x3dc646icx>

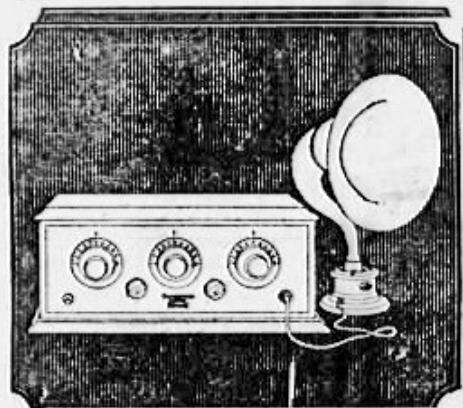
Definitely not professional, but viewable... WHBU was playing "Downtown" by Petula Clark at the time and thought it neat to hear a song that was popular forty years after this radio was new...

John

Location of the Antique Radio Forum article is:

<https://www.antiqueradios.com/forums/viewtopic.php?>





Experience the Foundation of Thompson's Success

THE GRANDETTE
A 5-tube Neutrodyne
Model V-50

DURING the past 16 years over 116 different types of Thompson-Built Radio apparatus have been produced. This experience is your assurance that in design, manufacture and performance Thompson Products will give lasting satisfaction.

Thompson has achieved success by travelling the long, difficult path of experience. This wide experience is expressed in a Radio Receiver that is free from uncertainty and doubt. Whether you desire tone, distance, power or selectivity—when you buy experience, you are more sure of satisfaction.

One Grandette user in Philadelphia has logged every Class B station in the United States (certified). This is unusual, but Thompson Grandette users are on friendly receiving terms with most stations throughout the land.

The Grandette is not built to fit a price, but built to give uninterrupted satisfaction. This model, introduced last year, has won many, many friends. It performs with unflinching dependability; its tone is soothing, resonant, rich. The unobtrusive cabinet of beautiful mahogany is in good taste. List price \$125.

The Thompson Speaker with special cone diaphragm and seven other features lists at \$28.

THOMPSON RADIO



*Built by Makers of Army and Navy Radio
Apparatus Used by Leading Nations*

METROPOLITAN DISTRIBUTORS OF THOMPSON PRODUCTS

THE AEOLIAN COMPANY, HERBERT-JOHN CORPORATION,
29 West 42nd St. 1780 Broadway.
R. H. McMANN, INC., STEELMAN, INC.,
122 Chambers St. 24 Murray St.



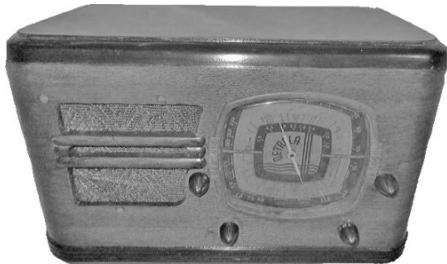
Clipped from The Daily News, New York, NY—October 17, 1925

f=1&
t=38
0295

CoilDemic

Edward Dupart—April 5, 2020

With this Covid19 pandemic going on and being isolated to our property has given me some extra time to work on radios. Two in a row have had coil problems, a Detrola 146 and a Philco 39-70. I acquired the Detrola from a friend last year that liked a small radio I had so we did a swap and the Philco came from a friend in Kalamazoo. Both had open coils and so I used a little creativity to fix them.



Detrola 146—Restoration complete

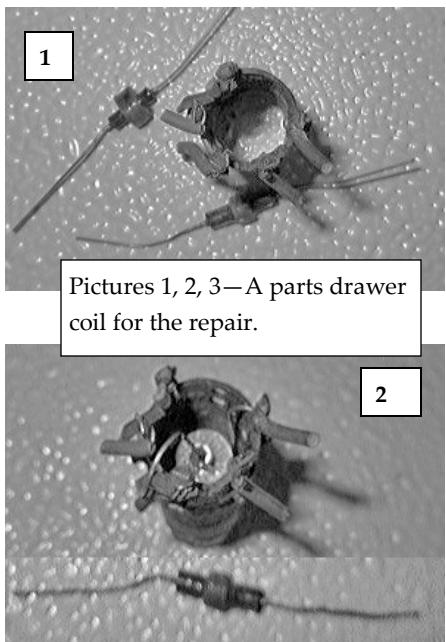
The Detrola had a fairly solid cabinet that didn't need much gluing, but the finish was terrible and needed refinishing, which I did and the radio looks nice now. The plastic dial face was broken and I had to make a new one. I have a wooden form for that dial, which is used on other radios, and I place a piece of new plastic over it and then put it in the oven and wait for the plastic to get warm and pliable. Then I push the plastic over the edge of the wooden form to create the sides. After it cools I use scissors to cut the plastic to size. Another thing I noticed was it had a wire soldered to the variable ca-

pacitor with crumbling insulation, which told me a long time ago someone added an antenna to this radio. That told me there was some kind of a problem in the front end of the radio and I kept that in mind as I continued to work on it. The chassis was in good shape as well as the speaker, so this was the condition of the radio when I got it.

Electrically it needed all the capacitors changed, which I did and the radio played great on the short-wave bands but was weak on the AM band. Now I understood the added antenna wire because when I touched the wire stations would come in loud and clear. I studied the circuit and I discovered the RF stage was only for the AM broadcast band, so the antenna would go to the RF stage for AM, but bypass it for the short-wave bands, which explained why the short-wave worked just fine.

Now it's time to take some

voltage measurements and I discovered there wasn't any voltage on the plate of the RF stage, but there was voltage on the screen grid. This would explain why the RF tube didn't check good, because this condition is hard on a tube. The plate side of the RF transformer was open so I removed it and saw there was no way I could repair it and I didn't want to rewind it, nor did I want to replace it. I could wind a coil on top of the existing winding or I could put a coil inside the transformer, which is what I did. I tend to save everything, including chokes, so I got my choke drawer out and lined up some chokes that would fit inside the RF coil. I used



Pictures 1, 2, 3—A parts drawer coil for the repair.



jumper wires and hooked one end of the choke to the plate of the RF tube and the other end I connected to the B+. I turned the radio on and low and behold it was working much better with the antenna connected where it should be. Sliding the choke in and out of the RF coil told me where the best spot was and I did this with several chokes and I tried different directions of the coil. After selecting the best choke, I placed it inside the coil and soldered the choke's wires to the B+ and plate terminals of the coil. I did put insulation over the choke wires to keep it from shorting out to anything. The choke has now become the primary or plate winding for my RF coil.

While the radio played much better it still wasn't up to par and so I did some more checking. I'll

CoilDemic - continued

be, the primary on the AM antenna coil was open! So out came the chokes and I went through the same process and after mounting the choke inside the antenna coil the radio worked great. I wondered if lightning hit this radio? Oh well, it works and I'm happy and I knew those TV chokes would be good for something someday!



Philco 39-70 Restoration in process

I'm done with the Detrola so now to move onto another radio and it happens to be a Philco 39-70, a nice looking farm radio. The cabinet was surprisingly solid considering it had water stains at the bottom of the cabinet. It did require some gluing, but not much. I was able to remove the bottom trim, which enabled me to sand out a lot of the water stains. The finish on the front of the cabinet was in great shape and consisted of three pieces of veneer. The bottom piece of veneer had a lot of water stains, so I removed the finish on the bottom part only so I

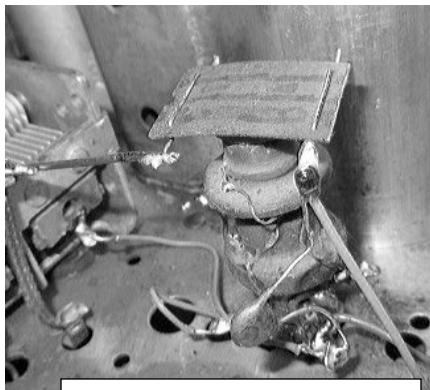
could do a lot of sanding there. After staining, lacquering and wet sanding the cabinet looks nice. I forgot to mention the grill cloth was perfect!

Now onto the chassis, which had some rust. I used a screwdriver to scrape most of the rust off and then I took sandpaper to it and that got rid of the rest of the rust. Every single tube had a blown filament, which told me someone accidentally applied 90 volts to the filaments, oops! After replacing all the capacitors and tubes the radio works, but it lacked sensitivity on a short antenna. I checked the primary on the antenna coil and it was open. This coil wasn't hollow inside like the

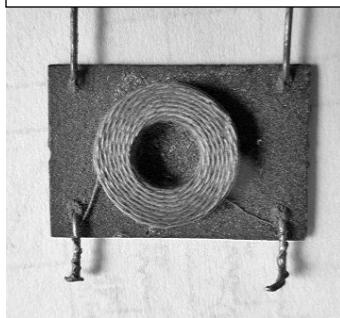


Philco 39-70 - Antenna coil is open

Detrola. I dug out my flat TV chokes and I found if I placed it on top of the end of the antenna coil it worked great! So I mounted the choke with heavy solid wire to keep it in place and that completes this radio.



Philco—a TV choke repair for the Philco antenna coil.



Some technical comments about RF/IF transformers are in order. The three coils I repaired had open primaries and were not part of a resonant circuit. The primary job of the primaries in these three coils is to pass a wide range of frequencies to the secondary, which is a resonant circuit. The secondary or resonant circuit has the job of selecting the desired frequency to be amplified so the secondary has to be a certain impedance to cover a certain band of frequencies and so just any coil would not work for the secondary.

The primary is not super critical of how many turns of wire are used, but the secondary is very critical of how many turns are used. For those of you who have built radios, you may have been instructed to wind 10-20 turns of wire over or near the secondary coil and in the case of early simple one to two transistor radios it was 10-20 turns over a Miller ferrite loopstick. I could have wound 10-20 turns of wire over the bad coils, but I didn't feel like winding wire over the coil, which may have required unsoldering wires. Using the chokes was easier. Had the secondary been open, then I would have replaced the coil. IF transformers commonly have both the primary and the secondary windings as resonant windings and if a winding opens up then it is best to replace the transformer and they are pretty easy to find. Sometimes the wire coming out of a winding is broken and all you have to do is attach a longer wire to it. If that is the case I usually solder a solid wire of about 22 gauge to the transformer terminal and then solder the broken wire to the solid wire. So I always check for that condition before condemning the transformer to the trash bin.

Which radio will I tackle next?

Ed Dupart, April, 2020

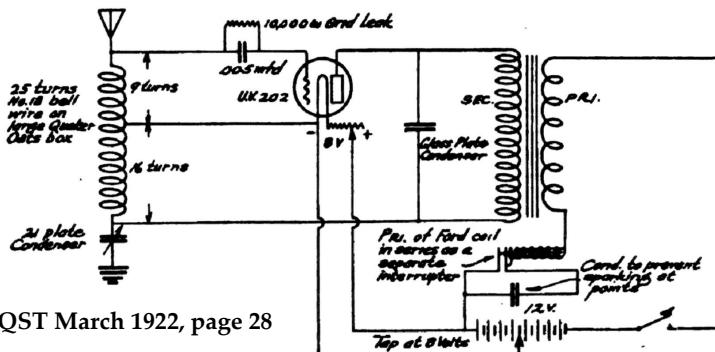
Wireless News From Everywhere

Palladium Government Call Is 9 ZAE.
Fred Clark, Operator.

Fred Clark, a Richmond High School student, was well known in the Richmond (Indiana) community as the kid who knew all about 'wireless'. For several years Fred Clark assembled wireless equipment with some of his transmitters built around automobile spark coils. In a Palladium Item, January 1, 1921 interview Clark admitted that for much of his early wireless projects he was not legal – but felt the Radio Commission did not consider his across town transmissions were strong enough to create a problem. He did though, in 1920 receive his amateur license, call 9qc, with a second class commercial license to follow.

A Spark Coil-C. W. Transmitter

By Francis L. J. Duffy, 9DDY



"Wireless listeners in Richmond were considerably mystified Sunday afternoon by a new Continuous wave set in the city. It finally turned out to be Fred Clark, with a tube hooked up after the fashion described in the March QST."¹

Note the use of a Ford spark coil and a glass plate condenser in the transmitter.

Fred Clark, "Wireless News From Everywhere" March 21, 1922

Edward H. Harris, managing editor of The Palladium Item, Richmond's newspaper, recognized

Fred Clark's wireless knowledge and gave him space in the paper to comment on "Radio". For several

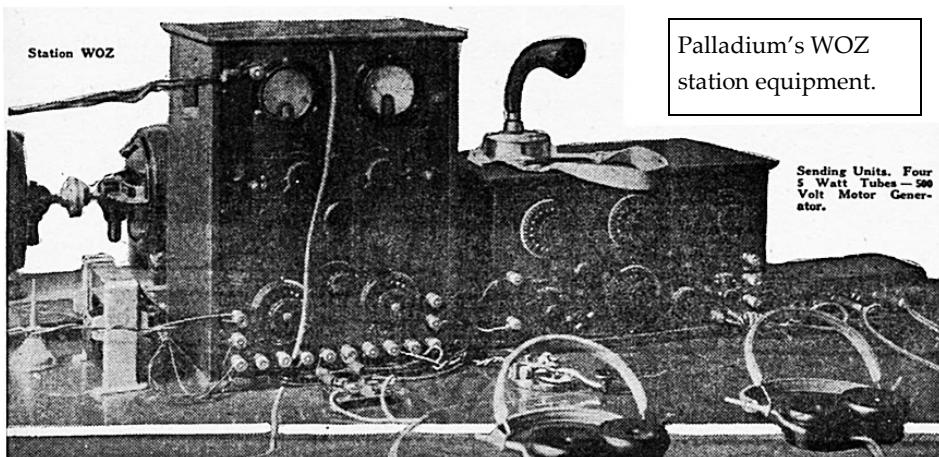


Fred Clark, Richmond High school,
Richmond, Indiana

years he wrote a weekly column with the title "Wireless News from Everywhere" and later "Radio News". Mr. Harris was interested in establishing a "Palladium Broadcasting" radio station and hired two people to build and operate the station. Lt. H. F. Breckel, experienced in constructing and operating radio stations was hired to build the station and Richmond's local talent, Fred Clark, as

operator/broadcaster of the station. The station, constructed in a second story room of the Palladium Item news building was equipped with four five watt tubes. A 500-volt, motor generator connected with the lighting circuit furnishing the power. The sending set was radiating three amperes during the demonstration with a radius of 30 miles from Richmond.

Initially the Palladium Radio Station was licensed with the amateur call 9ZAE, as recorded in Fred Clark's weekly column. WOZ became the call in May of 1921. The Palladium station WOZ was operated by Fred Clark as a demonstration station beginning May 1921 to the official broadcast date in August 1921. "Approximately 100 demonstration concerts were given before lodges, churches, and country gatherings in the few months' time before the regular broadcasting service was established."²



Palladium's WOZ
station equipment.

Sending Units. Four
5 Watt Tubes — 500
Volt Motor Generator.

DO YOU KNOW HIM --or ONLY HIS VOICE?



The Voice of

Fred Clark

Radio operator of the Palladium Broadcasting Station, has actually been heard from Billings, Montana, to Birmingham, Ala.; from Valley View, Texas to Larnia, Ontario, according to letters on file at the Palladium office.

True to the adage, "There are no grey hairs in radio," Fred Clark is young in years and old in experience—he knows radio.

Incidentally, Fred not only thinks the—



"—designed and built for the man who wants to listen to the 'voices of the air' without being forced to become an electrical expert to do so—"

is the best receiving instrument on the market, but he is assuring our customers of proper installation by giving this important service his personal attention.

Fred Clark is our "radio man" in every sense of the word. Meet him personally, ask him questions—his experience and knowledge of radio is at your command—entirely free of charge.

ZENITH
Licensed
and Manufactured
Under Armstrong
U. S. Patent
No. 1,113,149

Weisbrod's
"MUSICALLY"—"EVERYTHING"

Come in for Our Daily Radio Concerts.

Opposite Post Office

Phone 1655

ZENITH
Licensed
and Manufactured
Under
U. S. Application
No. 807,388

"BROADCAST" YOUR MESSAGE THROUGH THE PALLADIUM

Radio phoning is a sensation—it's new.

But talking across miles of space to people you never saw before—isn't. The Palladium's Classified Section has been delivering that sort of message for years!

Like the flash of a radio dispatch the news that you have lost some valuable article is sent out to thousands of Richmond homes through a little ad in the Lost And Found column.

With equal speed and certainty you can tell the homeseekers of the city that you have a house or an apartment or a room for rent, the job-hunters that you have work to be done, or any number of other people that you are selling something that they will be anxious to buy.

There isn't an ad-message that you can't send directly to those who will be most interested in it!

Call 2834 and ask for an ad taker today.

In 1921 station WOZ was credited as being the first newspaper broadcasting station in the middle west, with the exception of the Detroit News. The Palladium broadcast was identified as the first station in Indiana (and probably in the Nation) to transmit Radiophone market reports in

co-operation with the United States Bureau of Markets. The Palladium saw the need for the farm community to know current farm trends and market activity. With the efforts of Fred Clark the newspaper out-fitted a company car with radio equipment and traveled the farm communities in order to demonstrate the value of radio in daily farming activities.

Announcement Motorists-Radio Fans

Get out your radio set and "tune in" on Station WOZ tonight, Saturday, Oct. 21, at 6:45 p. m.



"How to Buy an Automobile"

An Address

"YOUR CAR and YOUR DEALER"

Broadcasting by Station WOZ

Bethard Auto Company
ONE OF A THOUSAND

Like many of the early radio stations, Palladium's WOZ struggled with the expense of radio equipment and operations. Advertising was not considered as a means of covering these costs. The Palladium station made some effort to finance operations by using WOZ to encourage Richmond residents to post ads and buy the newspaper.

Billy Sunday



Billy Sunday, the popular evangelist.

Billy Sunday, a former professional baseball player, was a well known evangelist who for many years traveled from city to city throughout the country preaching the Gospel. It was during Billy Sunday's six week stay in Richmond that Mr. Sunday had his introduction to radio. Richmond's newspaper, the Palladium, convinced Mr. Sunday to allow the installation of a receiving set in his hotel room. Members of Billy Sunday's vocal group were invited to present a program of song from station WOZ. Mr. Sunday listened

BILLY SUNDAY PARTY TO GIVE PROGRAM BY PALLADIUM WIRELESS

A special musical program will be given Wednesday evening over the Palladium wireless telephone by members of the Billy Sunday party. The songs, instrumental music and words of the speakers will be broadcasted for all wireless listeners in this district from "Station 9 ZAE".

This is the first occasion that any of the Sunday party have taken part in a wireless broadcasting program and wireless listeners Wednesday night may congratulate themselves on being the first to hear this talent by radiophone.

Clipped from the Palladium Item.
March 24, 1922—Billy Sunday's vocal group, to perform on "Station 9 ZAE". (The Palladium Item's Radio Broadcast call, WOZ and 9 ZAE are interchanged throughout the life of the station.)

to the WOZ broadcast in his hotel room, his first experience of listening to a radio broadcast and a first for members of the vocal group to present a program for radio.

The occasion of Billy Sunday's introduction to radio was the nation's introduction to station WOZ, Richmond, Indiana. The June, 1922 issue of Radio Digest covered the event with two pages of text and pictures.

RADIO PROGRAM

PALLADIUM STATION—

Wednesday, April 26, 6:30 p. m.
(Special program given by members of the Billy Sunday party in person. "Billy" will listen in on the program by his party in his room in the Westcott hotel).
U. S. weather forecast.
Song, "In The Garden".....
Mrs. Asher, Mr. Rodeheaver
Trombone solo, "Safe In The Arms of Jesus" H. Rodeheaver
Duet, "Where The Gates Swing Outward Never".....
Mr. Peterson, H. Rodeheaver
Piano Humoresque, "Suwanee River"..... Robert Matthews
Song, "The Recessional"..... Homer Rodeheaver
Trio, Negro Spirituals.....
Mrs. Asher, Mr. Matthews,
Mr. Rodeheaver.
Duet, "The Old Rugged Cross,".....
Mrs. Asher, Mr. Rodeheaver

An April 26, 1922 WOZ/9ZAE Radio Program listing the order of performance for Billy Sunday's vocal group.

By September 1922 the primary operator/manager of the Palladium Broadcasting station, Fred Clark, has graduated from high school and enrolled in Purdue University. The Palladium News paper found that the expense to replace Fred Clark meant hiring and relocating a new operator, with a commercial operators license , was going to be expensive. The Palladium decided to shut down the station, and donate the

Surplus Radio Material FOR SALE

All the equipment listed is in good condition.

- 1 two-variometer type regenerative tuner.
- 1 Type MP-100 DeForest regenerative tuner, detector and 1 stage amplifier.
- 1 "International" motor generator, 525-volt.
- 5 22½-volt B batteries.
- 1 45-volt B.
- 1 magnetic modulator.

Call FRED CLARK, Jr.

Wireless Operator Palladium
Telephone 1510

radio equipment to the Physics Department at Earlham College. The donated equipment was destroyed in a campus fire in October of 1924. *Fred Prohl, October 2020*

1 March 1922 QST page 28, March 1922 ; "News from Everywhere, Fred Clark, March 21, 1922. The Richmond Palladium Item March 21, 1922.



Palladium Government Call is 9 ZAE — Fred Clark, Operator

2020—VINTAGE RADIO ACTIVITY—2020

Check each organization's web page for current Vintage Radio Meet Activity.

Indiana Historical Radio Society indianahistoricalradio.org

ARCI—Antique Radio Club of Illinois antique-radios.org

MARC—Michigan Antique Radio Club michiganantiqueradio.org

CORA Central Ohio Antique Radio Association coara.org

SPARK sparkantiqueradio.com for monthly meetings

CARS—Cincinnati Antique Radio Society [Cincinnati -antique-radio.org](http://Cincinnati-antique-radio.org)

PARS—Pittsburgh Antique Radio Society pittantiqueradios.org

MSARC - Mid-South Antique Radio Collectors

AWA Antique Wireless Association antiquewireless.org



That's right! The Indiana Historical Radio Society in October 2021 will celebrate fifty years as an organization dedicated to the preservation of vintage radio.

RADIOADS



Submit your "FREE TO CURRENT MEMBER"

RadioAd by the 15th of February, May, August, or November in time for the Bulletin issue that follows.



2020 Officers

Responsibilities

Alex Whitaker President 2927 South East Street Indianapolis, Indiana 46225 317-787-2854 ehscott@sbcglobal.net	Activities, business, administration, & publicity
Michael Feldt, Vice President 12035 Somerset Way, East Carmel, Indiana 46033 (317) 844-0635 email: feldtm@msn.com	Sites and dates of meets
Don Yost, Treasurer 3814 E 400 N Windfall, Indiana 46076 (765) 945-7014 email: dearsir@netscape.com	Dues, financial, and address change. Please notify immediately of change of address.
Editor Fred Prohl 615 Wren Drive Franklin, IN 46131 (317) 736-1228 email inhistradio@gmail.com	News articles, radio ads, photos for Bulletin publication Maintain indianahistoricalradio.org
Dr. Ed Taylor, Historian 1790 East 54th St. Apt 112 Indianapolis, IN 46220 (317) 259-4842	Indiana Historical Radio Society Historical Documentation

Bulletin Deadlines: News, Articles & Radio Ads, 2/15, 5/15, 8/15, 11/15

The BULLETIN

**A publication of the Indiana Historical Radio Society
Forty-nine years of documenting early radio.**



A Thompson V-50 and Music Master horn speaker rescued from the basement no playing in the family room.—page 4