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3

The Indiana Historical Radio Society

BULLETIN

SHE WANTED A RADIO...



The Bulletin

A publication of the Indiana Historical Radio Society
Fifty-three years of documenting early radio

IN THIS ISSUE:



CRYSTAL RADIO



ZENITH ROYAL 800



YESTERDAY'S PAPERS



SUMMER MEET PIX

The Indiana Historical Radio Society



The INDIANA HISTORICAL RADIO SOCIETY is a non-profit organization founded in 1971. Annual membership dues of \$15.00 includes the quarterly IHRS BULLETIN. Radioads are free to all members.

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News Articles, Radioads,
Photos for Publication

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Hello, one and all. Some quick notes:

ITEM: Our stalwart president has been inundated with multiple tasks—among which are moving to another city, dealing with death in his family and reducing the amount of things in his possession. I told him he is engulfed by what I call “The NeverEnding Busy.” Given his workload, lesser people would have crumpled under the responsibilities. I offered to remove a small bit of the workload by writing this letter. He is hoping to be finished by the end of the month.

ITEM: For the Fall Foliage Meeget, we usually need at least one to two months’ worth of time to negotiate with venues and neighboring radio clubs, and this time it wasn’t possible get everything to congeal. So, as a result, we’re foregoing the fall meet this year.

ITEM: I wonder how many fellow collectors have experienced this; I am at a crossroads. I started collecting in the Summer of 1985. I remember my first hamfest, running around the aisles, shouting, “My god, look at all the radios!” Forty years later, the passionate enthusiasm has dwindled to glowing embers. I look at the disheveled hoard that is my radio room and say, “My god, look all the radios...” Rarely do I see something new that attracts my attention.

It’s time to reduce. I want stuff gone.

The goal is to clear enough stuff to where I can walk around the radio room without either tripping or stepping on anything. And it has to go by way of five options: auction, radio meet, goodwill donation, trash or lit match.

For the last two years, I’ve followed a law of attrition—return home with less than with what you brought.

As of now, parts of the radio room are reorganized; you can see carpet again. But like dieting, it can be both encouraging AND discouraging. You return from the meet, flush with cash and an empty car, but the radio room still looks like nothing’s been removed—it’s still bulging with radios and junk.

Eventually the reduction program will taper off and I will be able to work on existing radio stock again. And my wife will cry tears of joy, grateful that the hoard has been tamed.

ITEM: For the bulletin, I’m thinking about publishing new special editions. The transistor special from two years ago went over very well, so I’m thinking perhaps publishing one themed o 1920s radios, one on either portable or personal radios, amateur radio, repairing sets during World War 2, etc.

If you have articles that you’d like to see published, this is your chance--especially based on these specialized issues I have planned.

Looking forward to seeing you in February at the Johnson County Fairgrounds.

Bill

Notes from The Editor's Desk

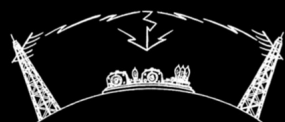
by Bill Morris



DUE TO SCHEDULING DIFFICULTIES,
THE FALL FOLIAGE MEETING IS
CANCELED



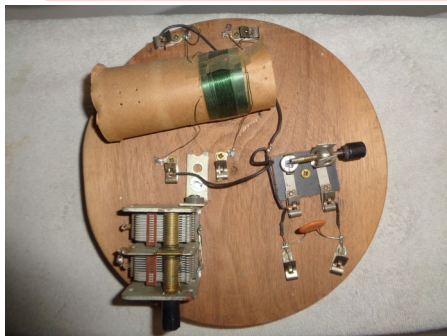
SEE YOU AT THE WINTER MEET



INDIANA HISTORICAL RADIO SOCIETY



CONSTRUCTION *Corner*



A while back, Steve Enzer and I went and visited Bob, a friend who had lots of radios. Bob had this junky home brew crystal radio mounted on a 3" thick round board. It had a cat's whisker, and it was the cat's whisker I wanted. We struck a deal and I brought it home.

It was my idea to strip the round radio for all the parts and build another crystal radio in a nice cabinet. I was going to give the round piece of wood to my brother-in-law to make a bowl out of it--and he makes lots of bowls--but whoever built this radio drilled two $\frac{1}{4}$ " holes with $\frac{1}{4}$ " bolts to hold down the toilet paper tube coil. That toilet paper tube wasn't going anywhere. So, the round piece of wood is now a potholder.

My brother-in-law gave me a couple of pieces of walnut and I considered them perfect for my new crystal radio cabinet. I made it 1920's style where I can remove the chassis, if you want to call it that, it's the board with all the parts on it. I used recessed screws to hold it all together so no furniture can be scratched. I filled the re-



cessed holes with melted crayons and I mixed the colors to try and make it match the wood. It's close, but not perfect. The decals were made using Avery 4397 Sticker Paper as this radio had seven connections needing to be labeled. I did spray clear lacquer over the decals to hold them in place and to smooth out the edges. Felt pads were placed on the bottom of the cabinet to prevent scratching any furniture and under the lid to prevent a banging noise.

I used all the parts from the original radio except for the cat's whisker and the toilet paper tube; the coil was pretty much squished. The green coil wire was perfect and I wound it on a white pill bottle.

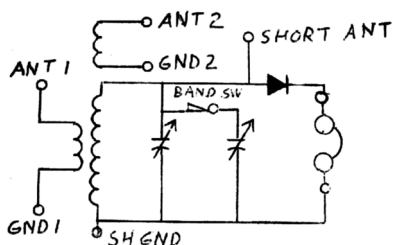
Round Board Crystal Radio to a New Cabinet

by Ed Dupart





I put metal in the bottle to see if it would up the Q, but it didn't. I added two antenna coupling coils; the one with the pretty green wire is located above the tuning coil and the copper colored antenna coil was wound on top of the tuning coil. I wanted to see which antenna coil worked better. An antenna coil can also be inserted inside the pill bottle. All three antenna coupling methods had been used in early radios and now all three can be tried out. The cat's whisker was replaced with a 1N34A diode which, in my opinion, works better.



The following was placed on a label and glued on the bottom of the radio:

This is a simple crystal radio that doesn't require batteries or AC power, only a good antenna and ground. There are three antenna connections, the first one is for a SHORT ANT (short antenna) and associated SH GND (short antenna ground) go directly to the tuning capacitor and is for when only a short antenna is available. The next antenna connection, ANT 1 and GND 1 goes to the copper colored winding that is on top of the main tuner winding. The third antenna connection, ANT 2 and GND 2 goes to the green winding that is above the main tuner

winding. They can be hooked up in series, series opposing and in parallel. Try out the different connections and find the one that works best in your area. The jumper wire on the variable capacitor when in parallel will tune the AM broadcast band. Disconnecting the jumper wire will enable short-wave reception, harmonics up to 5.5MHz, but will only go down to 650KHz. High impedance headphones are needed or a matching transformer for modern low impedance headphones.

How well does it work? At my house near Sturgis, Michigan, the local station, WBET 1230, comes blasting though and at night I can pick up WHO 1040 and KXNO 1460--both from Des Moines, Iowa. It also picks up a couple other stations at the high end of the broadcast band and a religious station around 5MHz. Hooking both antenna coils in parallel seems to work best. I took it to John's house in Kalamazoo and it picked up WKZO 590 and WKMI 1360. They were strong enough to drive a speaker--not loud, but I could hear it just fine on the workbench with a 4" speaker. Not bad for such a simple radio.



Articles Needed!!

Got something you'd like to see in the bulletin?

Write an article and send it in!



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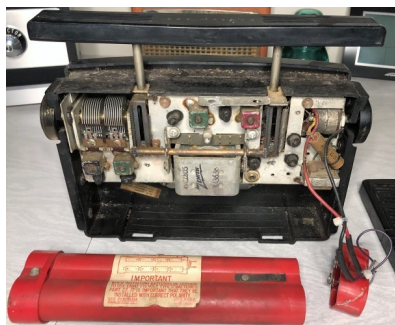
Include your current mail address
and email address (if applicable)



TRANSISTOR RADIO *Corner*

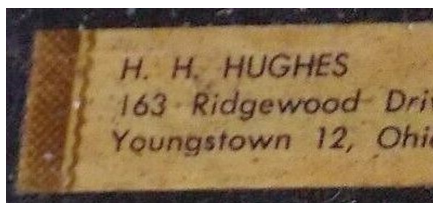


This well-used Zenith Royal 800 popped up as a \$20 "Buy It Now" with reasonable shipping cost and couldn't hit the button fast enough! Had already refurbished a much nicer example of this historic set which cost MUCH more a few years back and will be good to have another to play with. Dirty with very dull plastic and back cover which was warped a bit more than typical. Chassis appeared untouched



though the battery holder wiring connections had been reworked at some time in the past. The original owner's name & address label was glued to both the case's front and back sections as well as the chassis. Thought it very interesting that it had the same type of "ding" in speaker grille surround that my other set did—but at the 2 o'clock position instead of 7—a 180 degree difference. It actually worked somewhat with a bit of audio distortion and "scratchiness" while tuning the lower end.

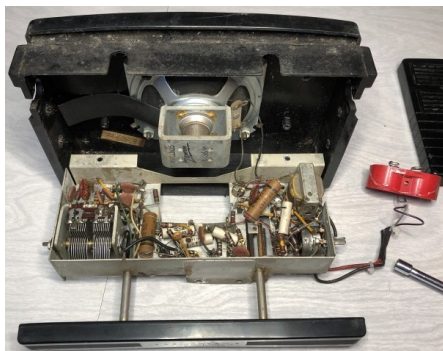
I did a bit of research on the original owner. His name was Harmon Harold Hughes and was from Youngstown, OH. He was born 9-14-1911 and passed away 4-15-79. He was a Foreman at Republic Steel in the 1930's and later owned an electrical appliance store in the 1950's.



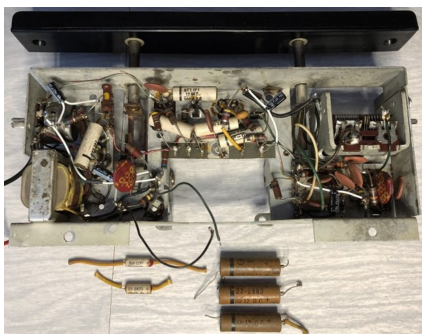
The Zenith Royal 800

by John Raskauskas





Disassembled radio to clean & service. Had to very carefully work the retainers off of upper speaker mounting studs using a small jeweler's screwdriver as not to damage either them or the thin nylon plastic posts. There was some fine sand behind the speaker grille and the speaker cone was warped in a couple places--used at the beach? Tested speaker and thankfully it still sounded fine. The right-side "point" of Zenith crown in grille's center was bent slightly inward and I was able to gently bend it back into position. Couldn't disassemble antenna handle---cover wouldn't even budge after screws removed---it was as though it had been glued together.



Someone had squirted oil into the tuning cap and knob, so took extra time to clean this mess. Fortunately neither the oil nor the Go-Jo (basic smooth white formula) damaged the gold graphics on the inner tuning dial.

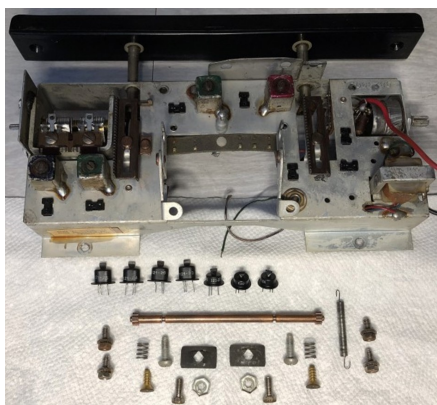
Took a long time to thoroughly clean the dirty cosmetics using Blue-Coral car wash-

ing solution and an old soft toothbrush. Was extra careful not to damage the original owner's three address labels that he had glued inside. Afterward, there was still a film "ground into" the surface of plastic and some tape residue which had slightly "eaten into" top of handle. Had to very carefully & quickly wipe with 91% IPA on soft cotton cloth piece to remove---the alcohol does attack the plastic, so extreme care must be exercised! Spent MANY hours polishing once clean. Had to wet-sand the lighter scratches and scuffs with 2000-grit paper. Used Mothers California Gold paste wax with mild cleaners to polish and had to go over surfaces MANY times to bring out a good shine. Discovered through experimentation that this car wax is superior to Novus-2 on early Zenith nylon cabinets as it doesn't leave a slightly cloudy appearance beneath the shine, though it does take noticeably more effort. Gently used a wooden toothpick and soft toothbrush to remove wax residue from grooves and crevices during final "buffing" with soft cotton T-shirt cloth. Used compressed air to blow off the remaining "dust". There are still minor discolorations remaining in the plastic after completion when looked at closely under a ring-light magnifier, but it looks very good otherwise.



This would probably clear up even better with more careful wiping using the IPA, but more hours of multiple polishing passes would be needed. Carefully polished the transparent base of outer tuning knob with Novus-2. Was able to press out the majority of the "2 o'clock ding" in grille surround

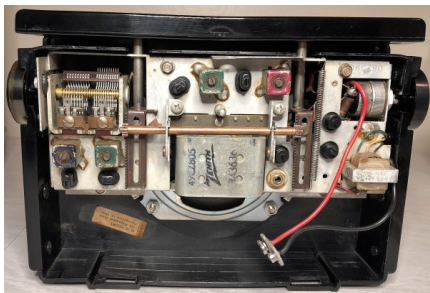
with very careful use of flat screwdriver tip just wider than the damage.



Chassis was also dirty and oily in areas. Cleaned all external surfaces carefully before servicing---especially at the tuning cap end as it was completely covered in an oily film. The “pop-up” handle mechanism didn’t work due to the thick coating of somewhat stiff grease. Disassembled this and carefully cleaned with paper-towel pieces and Q-tips using the IPA after removing the “loose stuff”. After reassembly, it worked much better but it still seemed to bind at lower end of travel. During close examination, discovered that one of the rack ends where handle post attached was slightly bent probably due to rough handling. Through trial & error, finally got it back into proper shape and all works fine after careful adjustment.



Removed and carefully cleaned all the original transistors while working on chassis. Replaced all electrolytics and had to add a short “pigtail” to the audio-coupling cap to make connection to volume control wiper terminal. The “battery tube” connections had already been reworked by a previous owner, so decided to cut it off at point of their new wiring, clean, and place in storage. Added a 9V style battery-clip so I can operate the radio with 8 AA cells.



The “scratchiness” of tuning at lower end was due to contact of slightly bent-in blade on the antenna gang rotor which was intermittently shorting. Gently bent it back into place and all fine. Radio worked well and sounded great after cap replacement and reassembly without even touching any of the alignments. Audio pretty much identical to my first set---powerful, clear, but “leaning” towards treble even though there is a bit of bass response. The high frequency response is impressive for this early of a radio as you can hear the “artifacts” when instruments or sound effects at a higher range are broadcast.

Radio still has slight trace of the old, stale cigarette-smoke odor. .

Back cover warped, but not as bad as originally thought. Seller had simple overlooked inserting the two lower mounting tabs in slots during closure. Am considering making a “buck” out of a piece of wood to see if it can be straightened with very careful use of a heat-gun, but need to give this more thought as I sure don’t want to cause further damage...

Performed a complete alignment a couple days ago. The 1st & 2nd IFT's required a bit of a “tweak” to peak and radio performance across entire band and sound quality noticeably better now---this is truly an excellent radio!

Just heard back from the Youngstown, OH library who did some very impressive research for me. The original owner of this radio, Harmon H. Hughes from Youngstown, had his own electrical appliance busi-

ness known as Hughes Electric Co. which also sold and repaired TV's & Radios. As the librarian had already done so much, did not want to trouble her again about looking up old newspaper ads to see if Zenith was mentioned. Anyone older from that area remember his store ?





YESTERDAY'S PAPERS

COVERING PAST MAGAZINE AND NEWSPAPER ARTICLES

THE CHIC RADIO-HAT GIRL



"Something always new," is the spirit of the eternal feminine. Perhaps it is just to keep a step ahead of the opposite sex. But you must admit the Radio Hat is NEW. The petite Miss above exhibited the novel head gear at a recent millinery show and came away with first prize. The best part about it is that it actually works and one can receive messages over it for some distance. This fact was proved by bringing in stations 1,000 miles away

World's Smallest Regenerative Set

How to Construct Vest Pocket 800-Mile Tuner

By Warner Bates

THE world's smallest regenerative set: Much interest has attached to the recent announcement of the construction by Robin V. Russell, Niagara Falls, N. Y., of a penant tube miniature regenerative set which can be carried in the pocket and yet will do all that could be expected of many larger and more complicated outfits. Mr. Russell completed the set during the winter and under favorable conditions listened in on broadcasting stations and amateurs in all but the sixth and seventh Radio Inspection districts. A portable set indeed!

Dial Container Is Cabinet

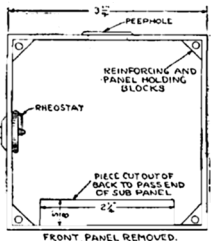
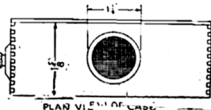
Mr. Russell ordered a Sleeper dial and when it was delivered he found it housed in a wooden box $3\frac{1}{4}$ inches square by $1\frac{1}{2}$ inches deep. On receipt of the box the idea struck Mr. Russell that he could by ingenious design a receiver to fit in the container.

The corners were reinforced by small $\frac{1}{4}$ -inch triangular blocks of wood with holes through their centers through which screws were passed to fasten the panel on the front of the box. A $\frac{1}{4}$ by $\frac{3}{4}$ -inch hole was cut out of the back to pass the end of the sub panel which carries the three battery binding posts.

The panel is of $\frac{1}{4}$ -inch bakelite, $2\frac{1}{2}$ inches square. The sub panel is fastened to the front panel by two $\frac{1}{4}$ -inch flat head screws and is $2\frac{1}{2}$ inches wide by 2 inches deep.

Single Circuit Regenerative

The circuit uses an improved regenerative single circuit using a spider web coil tuned by a vernier variable condenser and a switch on the antenna inductance.



The tickler feedback has fixed coupling. Figure 2 shows the hook-up used and the number of turns in each part of the spider web coil.

As was stated, the secondary is tuned by means of a vernier variable condenser controlled by a vernier dial (small knob in the center) in the center of the panel. The condenser is a .0001 mfd. Variadon

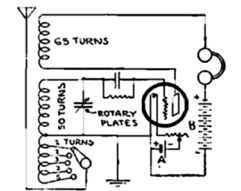
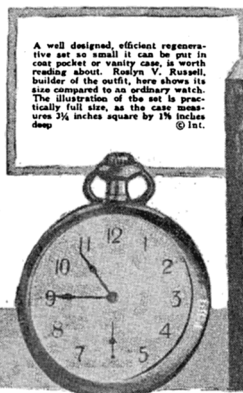


Figure 3

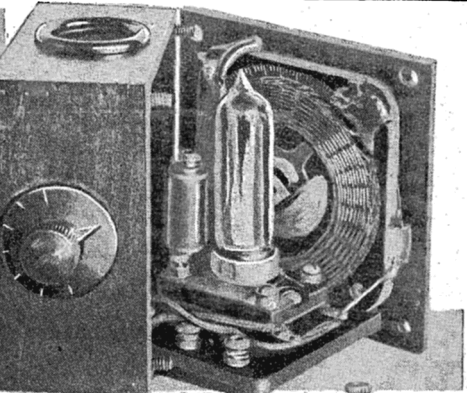
which was cut down from its normal $3\frac{1}{4}$ -inch diameter to a size $2\frac{1}{2}$ inches square within in any way, impairing its efficiency.

The shaft of the Variadon was drilled through the center to take a $\frac{1}{16}$ -inch brass rod, and a specially shaped brass vernier plate, shown in Figure 3 was soldered to the rod, which in turn was attached to the vernier knob of the dial.

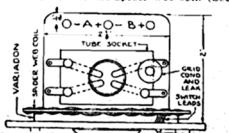
MINIATURE APPARATUS COMPARED TO WATCH



A well designed, efficient regenerative set so small it can be put in your pocket or vest, can be worn reading about. Robin V. Russell, builder of the outfit, here shows its size compared to an ordinary watch. The illustration of the set is practically full size, as the case measures $3\frac{1}{4}$ inches square by $1\frac{1}{2}$ inches deep. © Int.



Winding and Connecting Spider Web
Fastened to the outside of the variable condenser by means of sealing wax at various points is the spider web coil. (See



end of the wire is connected to the grid condenser and leak and the fixed plates of the Variadon. The turns of the inductance after winding were doped with M-R No. 11 varnish. After this had dried thoroughly the pins and former were removed. Figure 4 illustrates clearly the method of winding and of taking tape.

Tube, Socket and Grid Leak
The tube used is a Northern Electric 212-A "beam" with socket made by the same firm. To get the socket into the case it is necessary to trim the sides until the width is only 1 inch. The socket is mounted on the sub panel and a tubular

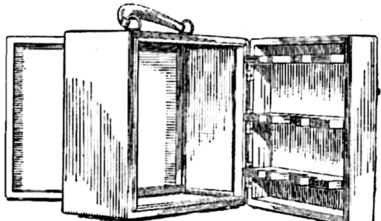
grid leak and condenser $\frac{3}{4}$ -inch long by $\frac{1}{4}$ -inch diameter is fastened directly to the grid binding post of the socket.

Mr. Russell made his own grid condenser and leak from a small rolled paper condenser mounted inside a hard rubber tube with brass plugs on each end and with a pencil mark leak extending from one brass plug to another on the outside surface of the hard rubber tube. It is not necessary, however, to follow this practice as very small grid condensers and leaks are available on the market and will serve satisfactorily here.

(Continued on page 6)

Inland Electric Co. Chicago

A RADIO SUMMER?



Brown mahogany finish portable cabinet, both front and back hinged, shelving in rear cover to fit No. 705 Flash-light "A" Batteries and No. 763 "B" Batteries; enough space for 3-tube set; head set fits in front cover, aerial in back. Complete, \$15.00.

ALSO

We are distributors for Atwater-Kent Radio Equipment and maintain a complete stock at all times.

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Tune in to Inland

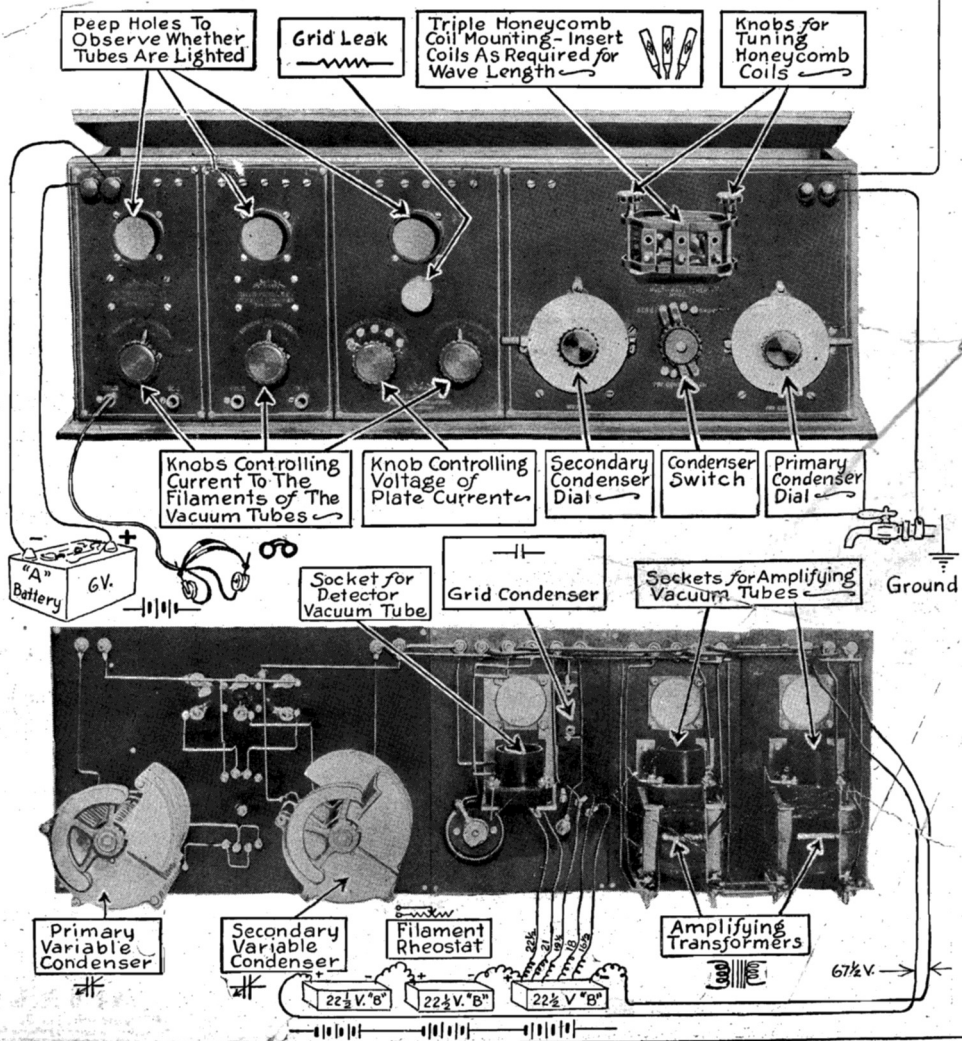
Radio Receiving Sets

The How of De Forest Inter-Panel Set

The De Forest inter-panel receiving set, consisting of honey-comb coil tuner No. MT-200, detector unit No. MP-100, and two audio frequency amplifier units No. MP-200, is explained diagrammatically below by RADIO DIGEST in its fifth chart on standard receiving sets. On page four, first column, will be found the explanation of the operation of the set here shown.

This receiver is manufactured by the De Forest Telephone and Telegraph Company, New York, and has, with proper honeycomb coils and antenna, a wave length range of from 150 to 27,000 meters.

Inasmuch as an understanding of one instrument will aid in the understanding of one of different make, the beginner should read this page and the accompanying explanation on page four carefully.

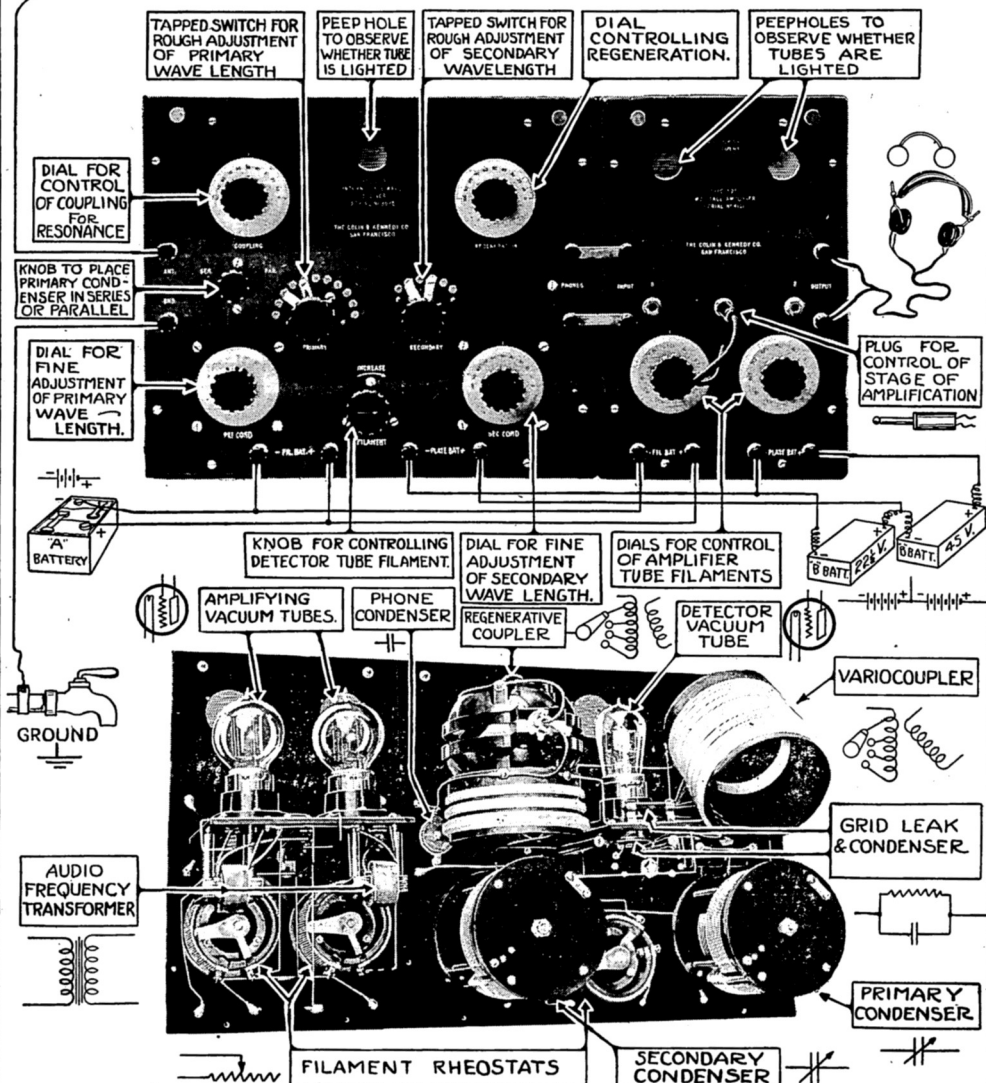


Radio Receiving Sets

Kennedy Regenerative Receiver-Amplifier

As the fourteenth of the series of standard receiving sets, Radio Digest illustrates herewith the Type 220 Regenerative Receiver and Type 525 Amplifier, manufactured by the Colin B. Kennedy Company of San Francisco and St. Louis. This receiver is licensed under the Armstrong United States Patent No. 1,113,149. Full installation and operation in-

structions will be found on page six. Although the amateur may not possess this particular make of apparatus it will be well for him to study the diagram and instructions carefully. The numerous points of similarity in standard types of sets will enable amateurs to derive considerable benefit from each set of instructions.

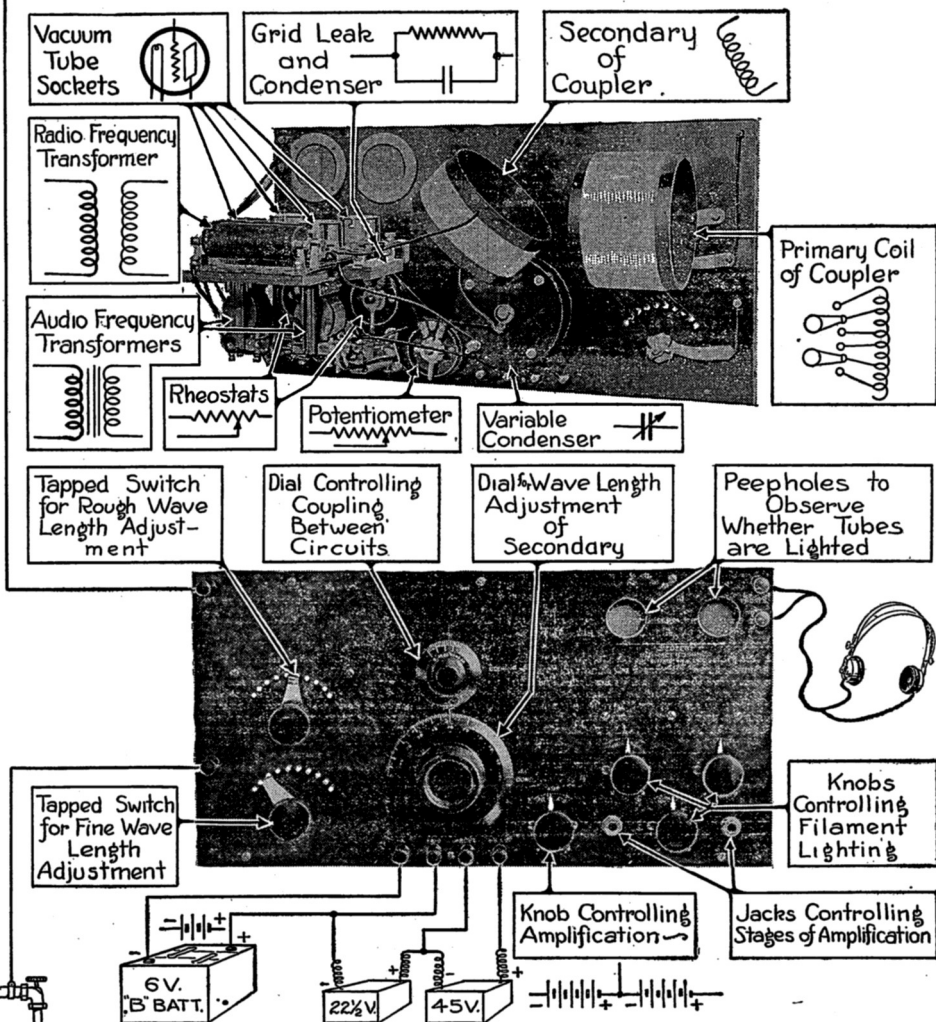


Radio Receiving Sets

Federal DX Type 58 Radio Receiver

As the seventeenth of the series of standard receiving sets, Radio Digest presents herewith the Federal DX Type 58 Radio Receiver, manufactured by the Federal Telephone and Telegraph Company of Buffalo, New York. This receiving unit employs the use of a tuned primary and tuned secondary circuit, one stage of Radio frequency amplification, a detector and two stages of audio frequency amplification. The circuit is

non-regenerative, extremely selective, and in addition, is very efficient. Full installation and operation instructions will be found on page six. Although the amateur may not possess this particular make of apparatus, it will be well for him to study the diagram and instructions carefully. The points of similarity in standard types of receiving sets will enable the beginner to benefit materially.



1920s Radio



1st

Steve Ewbank
1929 American
Bosch 48AA

SUMMER MEET CONTEST

Radios and
Phonographs
Were the
Contests

Prewar Radios



1st

Michael Feldt
1939 Pilot G508

Steve Sliger
1939 Zenith 5R312
& Crosley CR1 Replica



2nd

Postwar Radios



1st

Ed Dupart
Knight Kit Radios

Steve Sliger
Truetone D2601/D2611
& Crosley CR4 Replica



2nd

Acoustic Phonographs



1st

Michael Feldt
1906 Edison Standard

Mark Ginter
Victor Model R



2nd

Electronic Phonographs



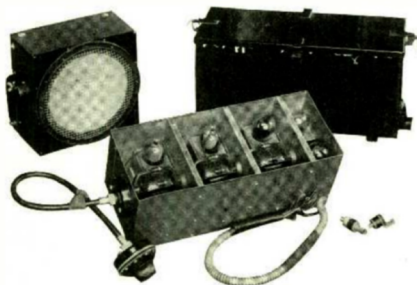
1st

Carlton Smith
1930 Sparton
Ensemble 235

2024 SUMMER MEET

Held at Cool Creek
Park, August 31 in
Carmel, Indiana





The Delco-Remy Automobile Receiver; Tuning Unit With Lid Off, Loudspeaker and Battery Box. Notice the Two Small Resistors for Shunting Spark Plugs and Coil.

Looking for an early car radio marketed by Delco Remy. The images show the set components and the schematic. My 1930 Cadillac was originally equipped with this radio, but a prior owner removed it and discarded it. It wasn't a very effective set, but it would be nice to have the car equipped as it was new.

Contact Chris Cummings at 703-730-1785

For sale: Altec/Lansing Voice of the Theater pair of speakers. These each have a 15" woofer in a bass reflex cabinet, with a large horn tweeter on the top. I have a set of replacement "Voice of the Theater" decals for the side of each. These are factory painted gray, with the decals on each side. Sound projection on both is just unbelievable, and they sound wonderful. They are just too big for my house. \$3500, or trade for E.H. Scott/McMurdo Silver items (?) American Bosch Model 680 console. Tuner chassis is totally rebuilt and works fine. Amplifier chassis needs a new power transformer (included) and rebuilt. Original 15" speaker is gone, but I have a 15" RCA electro-dynamic speaker (coaxial) that will work. Cabinet is beautiful. \$150. American Bosch Model 670 console. Console cabinet is very nice. I have two chassis. Needs a speaker/baffle board (I have one that will fit). One chassis is recapped/rebuilt, but needsput back together. The other chassis is all original. All dials and pointers included, and I might have a full set of knobs. This is a nice project I just don't have time for. Priced at what I have in it - \$100. All of this is pickup only at my new house in Greensburg. Contact Alex Whitaker at alwhitaker66@gmail.com.

RADIO *Activity*



Check each organization's webpage for upcoming meets, etc:



Indiana Historical Radio Society
www.indianahistoricalradio.org



Antique Radio Club of Illinois
www.antique-radios.org



Central Ohio Antique Radio Association
www.coara.org



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Antique Wireless Association
www.antiquewireless.org



Cincinnati Antique Radio Society
www.cincinnati-antique-radio.org



Michigan Antique Radio Club
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**The 1936 RCA VICTOR sets
swiftly, silently tune in
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A WINK of the far-sighted "Magic Eye," and you vault nimbly from the calm, clipped accents of a London news commentator to the pulsing rhythm of a Venezuelan rumba hot off the marimba in steaming Caracas.

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This pleasant quality, which is the RCA Victor tone, is derived from 35 years of experience, during which the great Victor laboratories at Camden, N. J.,



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