

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

October 2018

Volume 24 Issue 10



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 160 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

A show-and-tell and auction (courtesy of president Richard Lee) of ham gear, test equipment, parts and tubes were featured at the September meeting along with reviews of the Ron Frisbee auction (Ray Chase) and AWA Convention (Bill Zukowski). More coverage of the show-and-tell and Frisbee auction may be found in this month's *Broadcaster*.

I received the following comment from member Robert Forte regarding September's article "Testing the 26 and Battery-Type Tubes:"

"Bought a 1LE3 (1.4 volt filament) at Kutztown and it tested 'dead' on my TV-7A/U. Brought the voltage up to 2.0 volts and now it reads fine. I have always had a problem with 1R5's (1.4 volt filament) - they always read '0' emissions. I tried 5 of 'em. I'll bet it's the low filament voltage on the 1.4 volt setting."

On a similar note, I managed to find a used 26 in the shop. On my Hickok 752, on the 1.4 volt filament setting, it read 500 umhos with a 350 minimum value. On my TV-7D/U, on the 1.5 volt filament setting (which measured at 1.23 volts), it read 875 umhos with a 650 minimum value. It is suggested that 1.25 volts is the minimum filament voltage to effectively test a 26 and it appears that my TV-7D/U closely meets this requirement at the 4-pin socket. However, based on my tests noted in the September article, 1.23 volts would



MEETING NOTICE

The next NJARC meeting will take place on Friday, October 12th, at 7:30 PM at Princeton's Bowen Hall (70 Prospect Ave.). Directions may be found at the club's website (<http://www.njarc.org>). This month, member Mike Molnar will present a talk on Jack Poppele who launched radio broadcasting in New Jersey. Mr. Poppele was a director of the Voice of America, considered the "father" of WOR, developed the long range directional antenna and made stereo available on AM radio.

be too low to get a valid reading for 1U4's and the voltage requires adjustment.

Member Tom Sedergran reminds us that volunteers are always welcome for the Camp Evans Base of Terror (CEBOT) Haunted Attraction at InfoAge. CEBOT is a major money maker that keeps InfoAge going for many months. Remaining dates are Friday, Oct. 12th and Saturday, Oct. 13th through Friday, Oct. 26th and Saturday, Oct. 27th. If you can volunteer, contact Gloria Kudrick at:

gloriakudrick@verizon.net

Thanks go out to Ray Chase, his son George, Fred Carl and Pat Flanagan in moving three beautiful museum display cases from Ocean Grove to InfoAge. Pat was instrumental to help manhandle the cases down a long, narrow second floor staircase. On the same weekend, non-member Howard Andrews and his two sons delivered a truckload of at least 10 metal shelving units for future storage use.

Ray and the NJARC membership would like to offer continued thanks to our Radio Technology Museum (RTM) docents for keeping the museum alive and vibrant. With traffic continuing to increase, the museum board plans to develop a closer contact with docents to provide assistance in showing the best face of the NJARC. If you feel it will be helpful, Ray and Harry Klancer are requesting that docents provide a short email indicating any problems, notes on traffic and visitors or any other comments or suggestions.

Also, in the event of an emergency preventing a docent from keeping his assignment, it is requested that Ray or

Harry be contacted by phone as early as possible so a replacement may be found. The RTM prides itself on being open on all assigned days. Contact information is as follows:

raydio862@verizon.net
908-472-3329/908-757-9741
klancer2@comcast.net
732-632-7160/732-238-1083

Finally, picking up on an email thread started by Ray Chase, in light of today's political conflicts, the raging debate over slavery in the 1850s fractured political parties, paralyzed the national government and divided the nation. During that time, the new technology of the telegraph confronted Americans with a steady stream of virtually instant information that was contradictory, confusing, overlapping and inaccurate as it scrambled and intensified the political climate. Today, like the telegraph, social media is doing the same. At its heart, democracy is a continuing conversation between politicians and the public. Therefore, it should come as no surprise that dramatic changes in the modes of conversation, be it the telegraph or internet, cause dramatic changes in democracies themselves. What will be the next technology development that will guide the conversation?

Upcoming Events

November 3 - Fall NJARC swapmeet/hamfest at Parsippany PAL
November 9 - Monthly meeting at InfoAge; Show & Tell and Hints & Kinks
November 17 - Fall Repair Clinic at InfoAge
December 15 - Holiday Party at West Lake Golf & Country Club, Jackson NJ

THE JERSEY BROADCASTER is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$25 per year and meetings are held the second Friday of each month at InfoAge or Princeton University. The Editor or NJARC is not liable for any other use of the contents of this publication other than information.

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HOW NOT TO DISPOSE OF A FABULOUS RADIO COLLECTION

By
Ray Chase

I did not personally know Ron Frisbee but knew of him and his radio collection at his private museum in Pennsylvania. Ron passed away early this year and the heirs consigned his radio collection to Morphy's auction house in Denver, PA. This was a surprise to me as Morphy's is a very high-end auction house in the same league as Sotheby's and Christie's. Morphy scheduled the auction for August 29 & 30 this year.

The auction was advertised as "Fine Art-Asian & Antiques." There were 1107 lots listed consisting of fine arts, furniture, Asian items, fire and police memorabilia, tennis collectables and the Frisbee radio collection. The radios were to be sold at the tail end of the auction and amounted to 168 of the 1107 lots. Jim Kreuzer, AWA median librarian and well-known collector of early radios, was employed to organize the lots under the guidelines specified by Morphy. Ron's collection, as presented at the auction, consisted of 693 radios and speakers, over 650 vacuum tubes, many miscellaneous advertising items or accessories, a "Titanic Radio Room" display (more on this later), and a library of books and paper that filled 25 boxes. All this had to be sandwiched into the 168 lots and Morphy desired that each lot should be able to command an opening bid of \$800.00. Therefore, Jim had to batch many things together in sometimes incongruous ways. Morphy prepared a 308 page, hard-bound, full-color auction catalog that cost \$50.00 if you wanted it in advance (which I did). The entire catalog was available by internet on their web site and, if you registered for bidding at the auction, it was free.

Ron's Titanic radio room display was awesome and was offered as one complete lot. I do not know if this condition was stipulated by the heirs or the auction house. It contained, among many other things, an original Marconi multiple tuner from 1910, an original Marconi 1908 magnetic detector (Maggy), a circa 1890 induction coil for the spark transmitter along with other period pieces with an antique desk and chair complete with a manikin dressed in a Marconi uniform. The display was highlighted with framed

pictures of Marconi, newspaper headlines of the Titanic disaster and many other items to make it a spectacular display piece. The catalog listed 41 individual pieces in the display and put a price range of \$40,000 to \$80,000 on it.



Morphy has a large, modern auction facility in Denver, PA, just East of Lancaster, in the heart of Pennsylvania antique country. Morphy charges a 23% buyers premium (20% if one pays by cash or certified check). Sale tax is charged unless one is a registered reseller so any price quoted herein does not include the buyers premium or tax or shipping if applicable. I planned to attend on Thursday the 30th since the radio items were at the end of the catalog. The auction house displays most of their items in tall, all-glass display cases (see next page) as was done with the radios; the console radios and the Titanic display was set up in a corner of the display room. Use of display cases insures security but kind of inhibits close inspection. Attendants could remove items for closer inspection, but this was limited.

Thee actual auctioning was done in a theater-like room with plush seating. Im-



ages of items were displayed on two large monitors for bidding. Clerks manned 3 or 4 internet screens in the front and a bank of house phone bidders were at the rear of the room. Some tables were available for "serious" bidders who could use their own phones and spread out their catalog and notes. I arrived at 9 AM but the bidding was only up to about item 700 so I had plenty of time to inspect the radios.

It was an outstanding collection including many very rare items along with more common ones. The were some reproductions that were well done and clearly advertised as such. Most items were in very good condition. Lack of space caused some items to be squeezed together inhibiting close inspection. About 20 console radios and TV's were included and these were displayed in the open. There were at least three "Shutter-Dial" Zeniths. The 25 boxes of books and paper that was to be sold as one last lot had been moved to the loading dock and could not be inspected on Thursday. On a positive note, there was a small eating area next to the auction room with windows to watch the action and Morphy did provide a free pizza for lunch while the auction continued unabated.



The radio items came up about 1 PM. There were few radio people in attend-

ance, probably not more than a dozen or so. It is not like the old days with crowds of people filling the gallery at an auction. Now it is all on the phone or internet. Many winning bids went to the internet and I speculated that they were not long distance bids since some buyers amassed a large volume of items. It is hard to imagine absorbing the packaging and shipping costs associated with such large expenditures. I expect that these buyers stayed home, watched the auction on-line and would pick up their purchases at a later date.

The catalog listed a price range for every lot and the auctioneer would not entertain a bid less than half the low estimate. If that minimum was not met, the lot would be passed. More info on that later. The lowest estimate that I noted was \$400.00; therefore, if a bid of \$200.00 was not received, the lot was passed. This happened to thirteen of the lots. The entire collection of 168 lots were "knocked down" in about two and a half hours. I did not get a bidding number as I did not intend to buy anything.

The entire radio sale totaled \$158,235.00. When I first saw the catalog, I roughly estimated its value at \$250,000.00 and believe that if the auction had been handled differently, the total would have come closer to that figure. As for the Titanic Radio Room display, it sold for \$24,000. Selling it as one piece sharply restricted the availability of buyers. In fact, there were only two bidders for it.

As examples, recently offered Marconi magnetic detectors have sold in the \$25,000 area. The Marconi tuner should be in the same price range or higher. The 1890 spark coil should be at least a \$10,000 item and many of the other items in the display would sell for \$1,000.00 or more. I have no idea who purchased the display.

Overall, there were some bargains to be had if one was willing to take a large lot. For example, three excellent consoles including a Zenith Shutter Dial went for \$425 and five nice cathedral radios for \$250. As a whole, I thought the individual prices were low and would have been higher if the radios had been offered individually. The 25-box library, with at least 350 hard cover books, was sold for \$1200.00 to Jim Kreuzer who was hired by Morphy to organize, describe and price the collection and who is a well-known book dealer.

As far as the lots that were not sold, it is my understanding that they will be handled by another local auctioneer, Horst, at one of their Saturday night auc-

tions. Three of the passed lots were large groups of early tubes. Horst is in Ephrata, PA and can be contacted at 717-738-3080.

I have no information on what commission Morphy charges the consigner, but considering their obviously high overhead, advertising costs, printing of the catalog and payment & expenses to Jim Kreuzer for technical assistance, the house must take a good percentage of the gross. Plus, with such a high buyers fee, bidders had to take this into consideration and adjust their maximum bids accordingly.

I have the catalog and list of prices realized for review by anyone interested.



This Deforest 11-panel "Interpanel" receiver sold for \$1300.



Ray noted: "Jim had to batch many things together in sometimes incongruous ways." This lot of 20 assorted radios sold for \$900.



Radio Apparatus Co. of Pottstown-hammered down at \$3250.

SHOW & TELL AT SEPTEMBER MEETING

By
Marv Beeferman

We had a last minute change of plans for our meeting topic last month, but members came to the rescue with a diverse assortment of recent acquisitions and some items that they felt might peak our interest. In some cases, in their excitement to talk about them, it was hard to get these guys to stand still so a few photos might be a bit fuzzy.



Bill Zukowski picked up this homebrew at the Rochester AWA meet at the extravagant price of \$5. Although the transformers were bad, the rest of the parts were well worth the price. Bill also described two "whole-house" antennas; one by Dublier and one by Eagle. These artificial aerials allowed radios to tap into one side of the AC line via a capacitor. In the early days, they did quite well since outlets did not have a safety ground and knob-and-tube and Romex two-wire cable made the whole house a giant aerial. Unfortunately, they picked up every bit of electrical interference.



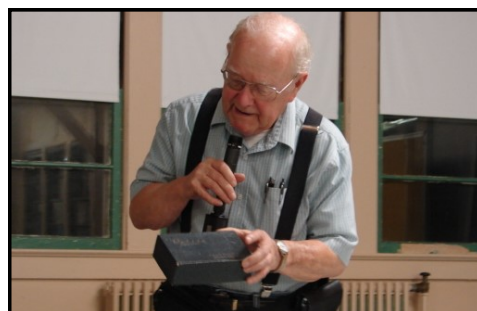
Dave Sica likes to keep us updated on the latest technology. He demonstrated the "CELL2JACK" which allows you to make and receive calls from a landline style phone using your cell phone when both are paired by Bluetooth. Voice assistant functions like SIRI and Google assistant and smart device control of lights, fans, TV and switches are also supported.



Phil Vourtsis' 1942 Emerson 461 is known for having a cardboard cabinet (pressed pasteboard covered with a leatherette paper material), perhaps forced by war production limitations. It is unknown if this model also had a Bakelite cabinet. In 1942, *Radio Retailing* described the cabinet as "simulated leather" as did radio authors Bunis and Slusser. Phil believes that his second offering, a miniature 45 RPM player, was probably a "give-away" since it is a non-working replica with no motor or mechanism.



Robert Forte described the details of his Sony 5" KV-5200 color portable TV. This 1980 set was one of the first to use the Trinitron CRT that utilized newly developed phosphors for a brighter, high contrast image. It also utilized alternating, vertical non-reflecting "guard bands" with phosphor strips that absorbed ambient light reflections. The set operates on a self-contained, rechargeable 12 volt battery and an internal charging circuit. A car cord connection is also provided.



Some radios are so small you might think they're of the transistor variety. But Ray Chase's "Petite" made by Shiro is deceptive...it uses four subminiature tubes (typical for these types of radios) powered by a 1.5 volt "A" battery and 45 volt "B" battery.

SO WHAT'S ALL THIS TALK ABOUT KUTZTOWN?

By
Marv Beeferman



As a new NJARC member and collector, you might have heard quite a bit of chatter about "Kutztown." Usually, it takes only one visit to become a "regular" and ensure that your schedule is clear to attend this twice yearly antique radio swap meet. After having a great day at last month's gathering with members Phil Vourtsis and Rick Weingarten, I decided to provide some basic information for those newbies to the hobby who still might be on the fence about attending.

The Kutztown Antique Radio meet is hosted by the Delaware Valley Historic Radio Club (DVHRC) to which many NJARC members also belong. It has evolved into one of, if not the largest meets in the country and attracts vendors and attendees from all over the USA and Canada. It is held at the famous Renningers Antique, Farmer's and Flea Market in Kutztown, PA. During Renninger's antique and collectible "Extravaganza," over a thousand dealers show up to sell their wares.

The meet takes place in two roofed pavilions, both usually sold out. Buyer admission is free Friday and Saturday but a dealer tag is required for Thursday entry at noon. Parking and onsite camping is free and hot showers are available. Food is available on-site and at the nearby Farmer's Market. Nearby hotels are located in West Kutztown, Fogelsville, Lehigh Valley West and Allentown.

The DVHRC offers a "buy-it-now" table of as-is, donated items on a cash-and-carry basis, capacitor and tube sales,

a restored raffle radio and various vendor raffles. A Friday night auction is held at 6:00 pm with a 15% commission for consignors and no buyers premium.

If you decide to sell, 10' x 10' spaces are offered at \$45 which includes one table and electricity. Extra tables are \$5. The next show is on May 10th and 11th, 2019, but most vendors make their reservations for the next year at the end of the previous year's meet...so you better hurry! To reserve a table for next year and get directions, contact Renningers at:

www.renningers.com

Here's some photos from the September meet. You can also view the action on YouTube at Bob Bennett's "Radiowild."





THE PRESSLEY SUPERHET

PART III

By
Marv Beeferman

This month, we continue with our investigation into the Pressley superhet, whose portable version was fortuitously recovered by member Dave Sica from the Lobosco estate sale and shown at September's show & tell. In Part I (May 2018) of the *Broadcaster* article, we traced Pressley's early years and his work with Major Edwin Armstrong at the Signal Corps Laboratory in Paris as the superhet concept was being developed. Following WWI, Pressley eventually joined the radio laboratories at Camp Alfred Vail (ultimately Fort Monmouth) and became its Chief Engineer. In investigating methods for adapting the superheterodyne for aircraft use, the "Pressley Superheterodyne" was born.

In Part II of the article (July 2018), the two salient features of the radio that Pressley carried over from his Camp Vail work - a bridge-balanced, single-tube oscillating detector circuit which prevented radiation from a loop antenna and the unique design of the IF transformers - were discussed. In Part III, we'll look at the features of the portable version of the radio itself.

The schematic of the portable version of the Pressley superhet is shown on page 7. It was offered by Rossiter, Tyler & McDonell, Inc. of 136 Liberty St., NYC as a kit to avoid patent litigation. In an August 1, 1925 advertisement, with tubes and batteries, it sold for \$134.40. It was called the "Portable Pressley-Sagamo Airplane Type Receiver," utilizing as its sales pitch its association with the uniquely-built/Pressley-designed Sangamo I.F. transformers and Pressley's work with "airplane" receivers at Camp Vail.

The radio was also referred to as a "super-autodyne" justified by the use of a single tube (autodyne) functioning as both a detector and oscillator and the "supersonic" nature of changing the incoming signal to that of a "long-wave", intermediate R.F. amplifier.

Dave Sica's radio also came with very detailed assembly instructions similar to those found in Heathkit manuals, photographs of the chassis and exterior of the radio and schematic and assembly blueprints. Unfortunately, the drawing for the main panel and vertical sub panel

assembly and wiring was missing.

Referring to the attached schematic and reading from left to right, the radio utilizes seven tubes: 1) a combination detector-oscillator connected in a balanced bridge circuit described in Part II of this article, 2) three I.F. amplifiers functioning at 60 KHz (see Note below), 3) a second detector, and 4) two audio amplifiers. The radio's bill of material specifies seven Cunningham 299 or Radiotron 199 vacuum tubes but Dave's radio utilized six Western Electric 231's for the first six stages and a Cunningham CX-220 labelled "FOR USE IN LAST AUDIO STAGE ONLY."

Note: Early superhets used IFs as low as 20 kHz, often based on the self-resonance of iron-cored transformers. This made them extremely susceptible to image frequency interference, but, at the time, the main objective was sensitivity rather than selectivity. Thus, a small number of triodes could be made to do the work that formerly required dozens.

The 99, 231 and 220, typical tubes for portables at the time, all run at the same filament voltage (about 3.3 volts) and the 99 and 231 both draw about 60 mA of filament current. However, the 231 and 220 have a maximum plate voltage of 135 volts compared with only 90 volts for the 99 tube. It's possible that the original owner of this radio might have wanted a little more output and perhaps bought his tubes separately and not as part of the kit. In addition, in the blueprint schematic that came with the radio, he has added an additional connection to the plate of the final audio and labelled it "B+135."

The chassis supports a main panel and vertical sub panel. The component specifics are as follows:

- Silver-Marshall SM-255/SM-256 audio transformers.
- Two Sangamo AT 60 air core and two Sangamo IF 60 iron core transformers couple each of the four WE 231 I.F. amplifiers.
- Two Silver-Marshall RF chokes (not shown on schematic).
- Two Remler .0005 mfd twin rotor capacitors used in the bridge circuit, one to tune the loop antenna circuit (marked "LOOP") and one to adjust the oscillator frequency (marked "OSC"). A split stator capacitor is used to balance the bridge.
- The primary of the oscillator coil consists of 5 turns of #28 D.S.C. wire and the secondary of 50 turns of #28 D.S.C. wire tapped at the 25th turn.
- The loop antenna is wound on the in-

side cover of the carrying case.

- 0.25 Megohm type J "VOL." potentiometer and 30 ohm "BAT." rheostat.
- A jack switch to select "L" and "S" antenna taps for "long wave" and "short wave" reception.
- There is no power switch. Battery power is provided by inserting a phone plug into a single circuit filament control jack. The audio output jacks shown in the schematic are not used in this radio.
- A Crosley Musicone speaker without its

base (missing in Dave's set) provides sound.

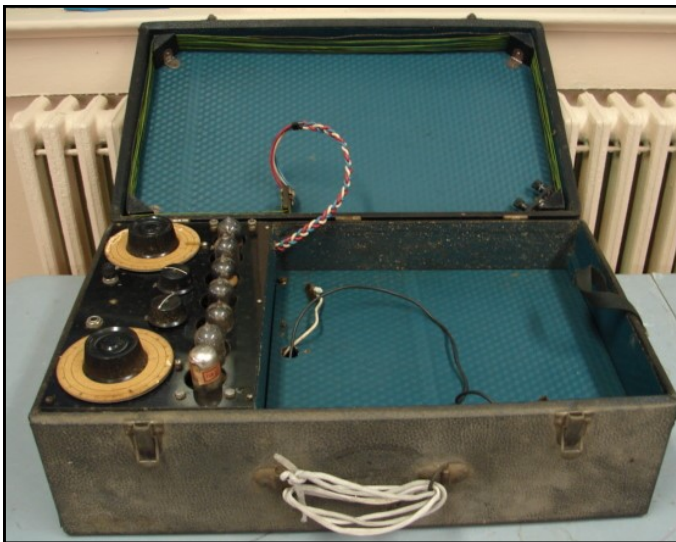
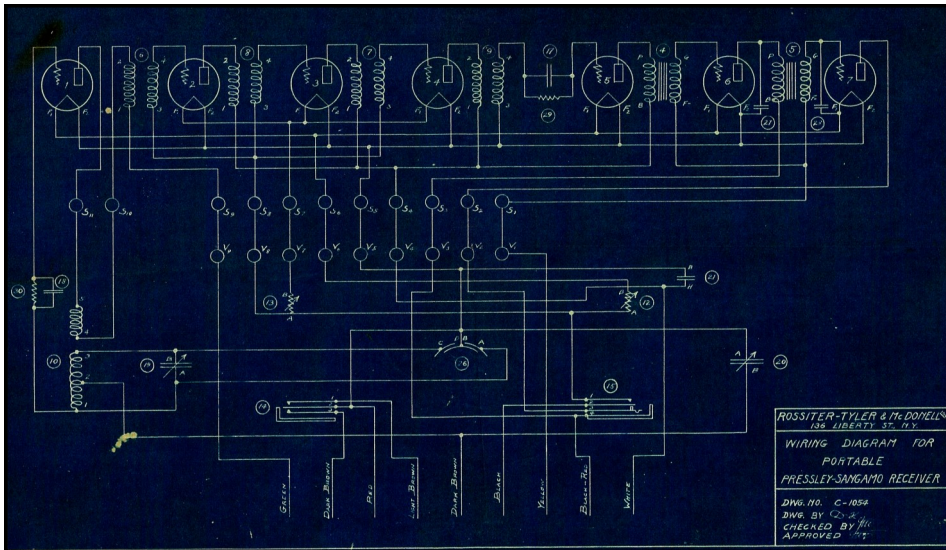
- The batteries are located under the panel that supports the speaker.

Once assembly was complete, the set was ready for operation but the bridge balancing capacitor had to be first set to prevent the loop from going into oscillation. This was accomplished prior to mounting the chassis in its case. A tube was placed in the oscillator/detector

socket and phones were connected in series with the 45-volt B battery leads going to the plate of the oscillator tube. To ensure oscillation, a wetted finger on the grid binding post of the tube should have produced a "click" over the range of the OSC. capacitor. The OSC. was then adjusted to a "dead" zone (no whistles or signals). Then, as the LOOP dial was rapidly rotated over its range, clicks would be heard. This was due to a transfer of current from the oscillator circuit to the loop circuit. Then, concurrently, the split stator balance capacitor was adjusted until the clicks entirely disappeared or became as faint as possible (a dull thud).

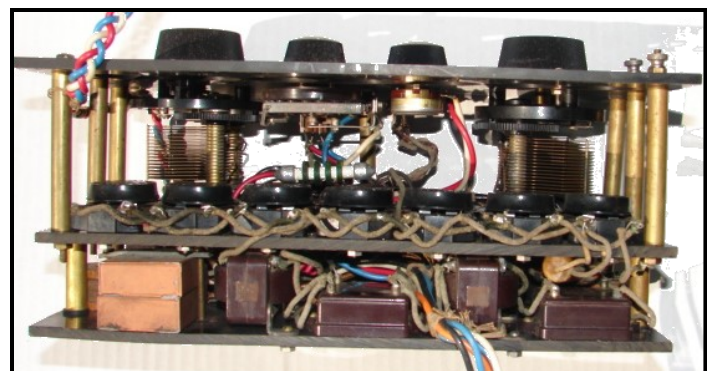
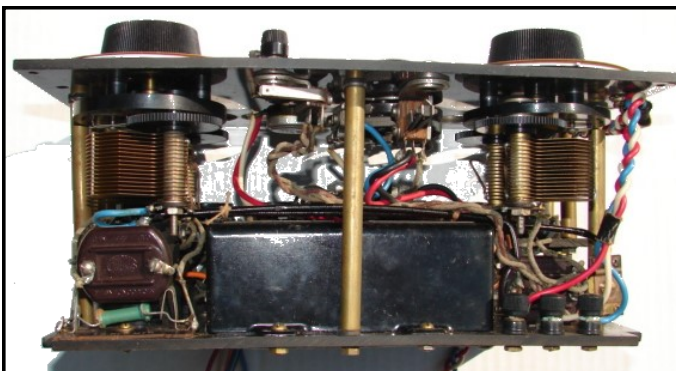
At this point, operation of the set was very simple. The OSC. dial was set to the desired wavelength and the LOOP dial to the corresponding oscillator frequency. Then, the case containing the loop antenna could be rotated to a point of loudest signals and the volume regulated by the rheostat controlling the audio amplifiers.

The next installment of this series of articles will feature other interesting versions of the Pressley superhet other than Dave's portable, and more on Jackson H. Pressley's life story. We'll also be reporting on the status of the radio's "vital" components on the road to restoration.



The Road to the Demise of the Pressley Superhet (from the history of the Sangamo Company):

"In the spring of 1924, our New York manager, T.B. Rhodes, met a former army engineer named Pressley, who had recently invented a new radio "hook-up" involving the use of the super heterodyne circuit. At that time, radio sets were Experiments being largely built by amateurs from sets of parts, receiving tuning coils, transformers, condensers, chokes, etc., so Pressley planned to offer a set of transformers and fixed condensers to enable amateurs to employ his circuit. As he was well vouched for, and as his circuit was very good, we made a royalty arrangement with him, and in September 1924, put the "Pressley kit" on the market. It met with instant favor, but our success was short lived, for in December the Radio Corporation of America notified us that the Pressley circuit infringed some of their most important patents, so, on advice of our counsel, we discontinued manufacture of the Pressley parts in January, 1925."





New Jersey Antique Radio Club's

Fall Swap Meet



Parsippany PAL Building

33 Baldwin Road

Parsippany, NJ 07054

**Just off Route 46,
Adjacent to Smith Field**



Saturday November 3rd, 2018



Refreshments Available

(70) 8 Foot Tables

\$25.00 for members

\$30.00 for non-members

Reserve Additional Tables \$20.00

At the Door \$25.00

Open to the Public

8am to 12 noon

Vendor setup at 7:15 AM

\$5.00 ENTRANCE FEE

CLUB DONATION

For Directions

Visit our website: www.njarc.org

or Mapquest

33 Baldwin Rd Parsippany NJ 07054

Vendors Make Your Reservations Now!

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