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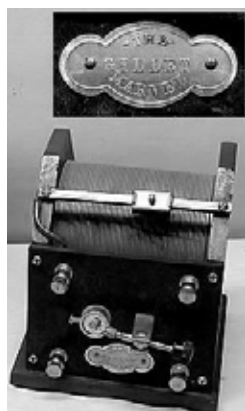
Call Letter

of the Northwest Vintage Radio Society

Vol. 25

November 1999

No. 11



In print since 1974

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The Northwest Vintage Radio Society

The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage radio" and wireless equipment.

Membership in the Society is open to all who are actively interested in historic preservation. The dues are \$15.00 for domestic membership, due on January 1st of each year (prorated quarterly).

The *Call Letter* has been a monthly publication since 1974. It was originated with the founder, Bob Bilbie, and our first president, Harley Perkins. Through several editors and with the assistance of numerous society members, the *Call Letter* has continued to be a publication that informs members of the society's business and that supports the hobby of collecting, preserving, and restoring vintage radios.

Society meetings are held the second Saturday of each month (except July and August) at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 10 AM for the purpose of displaying radios, conducting Society business, and exchanging information. Guests are welcome at all Society meetings and functions (except board meetings).

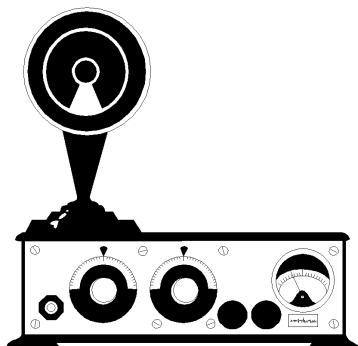
Other Society functions include guest speakers, auctions, radio show, and radio sales which are advertised in the *Call Letter* and are held in and around Portland.

Society Officers for 1999:

President	Charles Kent	(503) 281-9335
Vice-President	George Kirkwood	(503) 648-4809
Treasurer	Ed Charman	(503) 654-7387
Secretary	Liles Garcia	(503) 649-9288
Board member at large	Dave Rutland	(541) 929-4498
<i>Call Letter</i> Editor	Rick Walton	(503) 284-5648
Librarian	Tony Hauser	(503) 629-4836

The Society's address is:

The Northwest Vintage Radio Society
Post Office Box 82379
Portland, Oregon 97282-0379



November 1999

Table of Contents

From the Editor.....	2
NWVRS 1999 Calendar of Events	2
Meeting Minutes	3
RCA and the Pilot 3" TV Set.....	4
Photo Display.....	5
Remagnetizing Early Horn and Paper Speakers	6
Swap Shop	9
Roster Corrections & Updates	10
The Back Page	12

On the cover: To highlight our monthly feature, this month's cover presents six crystal sets from Sonny Clutter's collection. Of special note are the sets on the top row, which are of local origin. Thanks to Sonny for photographing these sets and sending them in for this issue.

Call Letter Deadline
10 days prior
to meeting day.

Officer nominations for 2000! Don't miss the meeting at the usual time on November 13 in the Abernethy Grange Hall. The monthly feature for November will be crystal sets, all kinds. And don't forget the tailgate swap meet that starts at 8:30 prior to the meeting!

The Northwest Vintage Radio Society is once again on-line! Visit the revived NWVRS web site at www.nwvrs.com.

The Call Letter is the official publication of the Northwest Vintage Radio Society. Circulation is limited to the membership and guests of the Society. The Society is not responsible for the material contributed for publication, nor the quality, timeliness, or accuracy of the items offered for sale in the SWAP SHOP. By common agreement of the board of directors, the buyer assumes all responsibility for the satisfaction of any transaction.

From the Editor

by *Call Letter* Editor, Rick Walton

Fall is definitely upon us. The first frost was on my car just this week, the leaves are turning (and falling), and the Northwest Vintage Radio Society is in full swing.

Be sure to attend the November meeting, because it's time once again to nominate club officers for the coming year.

I want to thank Sonny Clutter who provided me with the pictures of crystal sets for the cover. He responded to my request on the e-mail list. The six pictures he chose to send me cover some of the wide range of forms that crystal sets can take, and show a nice sampling of the output from local manufacturers.

Many thanks to Ludwell Sibley for the informative article on the relationship of RCA and the Pilot 3" TV. Ludwell is one of the founders of the Tube Collectors Association, and is editor of their newsletter, the *Tube Collector*. Happily, Lud is also a member of the NWVRS.

Many thanks also to Larry Weide of the Colorado Radio Collectors who granted me permission to reprint his article about re-magnetizing speaker magnets. This is the first of two articles about early horn and cone speakers that appeared in the November 1994 and January 1995 issues of the *Flash*, journal of the CRC and of which Larry is editor. In January we'll print the second article that explains how to recone the old speakers.

While we're handing out the thanks, let's not forget Dave Brown, who agreed to take on the revival of the web site, and has succeeded in returning the NWVRS to the internet. We now have our own domain, nwvrs.org, so that when you're looking for our site, we are simply www.nwvrs.org.

Next month we'll publish a special edition of the *Call Letter* to commemorate the 25th anniversary of the Northwest Vintage Radio Society, and a quarter-century of the *Call Letter*.

NWVRS 1999 Calendar of Events

November 13 Regular meeting. Don't miss this one — nominations for year 2000 officers. Monthly feature: crystal sets.

December 11 Regular meeting. Election of officers for 2000.

Meeting Minutes

by Liles Garcia, NWVRS Secretary

President Charles Kent called the October 9, 1999 meeting of the Northwest Vintage Radio Society to order at 10:00 AM. A correction to the minutes from the last meeting is that Wendy Johnson-Kent is a member of our 25th Anniversary Event Committee. Members approved the meeting minutes as corrected.

Club members welcomed Ted Spence as a new member, and Murlan Kaufman attended today as a guest.

Old Business

Club Caps and Jackets—Wendy announced that caps and jackets are still available.

Club Web Page — We discussed our club’s web site, and then voted to allow Dave Brown to spend up to \$350.00 to arrange for us to have a web site. The group then discussed some of the items such as our Call Letter that we could put on our web pages.

Swap Meets — President Charles Kent feels that we need more advertising for our swap meets. He suggested that approximately \$300.00 would be a good amount to start with. Members then voted to spend up to \$300.00 for advertising our next swap meet. The group also nominated a Swap Meet Committee. The Swap Meet Committee members are Dick Bixler, Jerry Talbott, and Wendy Johnson-Kent.

Library — John Bucholtz agreed to accept the Librarian’s job.

New Business

Club Budget--Treasurer Ed Charman discussed our club’s budget and finances. He said that we are currently just breaking even with income and expenses. Some members mentioned that we should increase our club dues to provide more income. We also discussed the income available from the interest on our club’s estate money.

Leads And Needs

(See the Swap Shop for “Leads and Needs.”)

The program topic for the November meeting will be crystal sets.

Our club program today was catalin radios. Members showed and discussed the radios that they brought.

The meeting was adjourned at 11:20 AM.

RCA and the Pilot 3" TV Set

by Ludwell Sibley

Most collectors have seen the charming Pilot TV-37 3" TV receiver. This was the sloping-topped table model that was introduced in the late '40s to sell at the then-record low price of \$99.95. Well, here's some insight into this set as seen by RCA, maker of the 3KP4 picture tube that it used. The following is from a "Merchandise Notice" of January 1949.

Merchandise Notice L-242, issued June 3, 1948, noted the addition to our line of kinescope type 3KP4, limited for sale to the Pilot Corporation only, pending determination of the commercial possibilities of low-priced, small-size television receivers.

After a trial of six months, Pilot has decided to discontinue this model and has cancelled their remaining tube orders. Since this company has a good record in the field of merchandising this type of product, we consider it unlikely that any other concern would be any more successful at this time... Our current inventory will take care of renewal requirements for a considerable period... Therefore, the RCA 3KP4 is hereafter limited for sale for renewal purposes only and to O[ther] T[ube] M[anufacturer] customers for resale for renewal purposes only.

There are several insights to be found here. It's not generally realized that Pilot apparently considered their set to be a failure sales-wise — it's a desirable item, but not rare, even today. (RCA's original factory schedule was 25,000 tubes for 1948 and 75,000 for 1949, which suggests that Pilot sold, say, 20,000 sets before giving up.) RCA was left with an inventory of 3000 3KP4s, most of which were probably sold eventually as replacements. (Ah, if only Pilot owners could get new 3KP4s today!) Even so, RCA doubtless recovered its costs of developing the 3KP4: the related 3KP1 (the same tube but with green screen) sold fairly well for use in oscilloscopes. And there's a hint that RCA was content to let Pilot test the waters for small TVs; if sales had been successful, surely the tube makers would have passed the word to the "Home Instruments" division of RCA Victor!

The Merchandise Notice quoted above is in the Dowd-RCA Harrison tube archive, a resource of the Antique Wireless Association Museum.

Photo Display

Photos by Rick Walton

Here are the catalins that members brought to the October meeting. In the member voting, first place was shared by Charlie Kent with his 1940 Baby Addison and Sonny Clutter with his 1939 Tom Thumb by Automatic Radio. Second place went to Tony Hauser for his Stewart-Warner, and third place to Jerry Talbott with his little 1939 RCA Victor 9X14.



1939 RCA 9X14 - Jerry Talbott
3rd place winner!



1946 RCA - Jerry Talbott



Stewart-Warner - Tony Hauser
2nd place winner!



1946 RCA - Bill Meloy



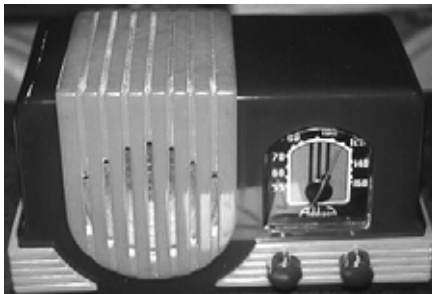
1st
place
winner!

1939 Tom Thumb - Sonny Clutter

RCA Portable
Wendy Johnson-Kent



1st
place
winner!



1940 Baby Addison - Charlie Kent

Remagnetizing Early Horn and Paper Speakers

by Larry Weide.

reprinted from Colorado Radio Collector's *The Flash*, 11/94

Hi... all you CRCers! Well, while the “boys of summer” are out on the picket line, I've been fortunate enough to find someone who was willing to step up to the plate - so to speak. What I'm mumbling about is that while I was carping to Dave Gonshor one day about having a tough time coming up with a 'Box' article for this month, he mentioned that his daughter had given him a 1935 book on radio maintenance. In this book, amongst a lot of other very interesting information, there is an article on how to recognize depleted permanent magnets in old style horns and speakers AND how to re-magnetize them.

So, with an apology to Alfred Ghirardi and his book “Modern Radio Servicing”, and a lot of thanks to Dave and his daughter, I'd like to pass this information on to all of you folks. As you'll see, Dave has not only used this information, but he's upgraded some of it to take advantage of currently available resources.

As many of you know, the early speakers, particularly the horn type, were really nothing more than re-fashioned earphones. That is, as with an earphone, there was a permanent magnet closely associated with a finely wound coil of wire. Adjacent to the magnet/coil assembly was a metal diaphragm. When voice and music signals passed through the coil they would induce a variance of the magnet's effect on the diaphragm causing

the diaphragm to vibrate in time to the program material. These vibrations are what we then hear as sound. The main difference between an earphone and the horn speaker was, of course, the horn itself. It was designed and formed to focus the sound so that more than one person at a time could hear the radio.

There were a number of different types of assemblies used. Most of these were derivations of what were called balanced-armature and iron-diaphragm type speakers. In the later derivations of these assemblies, paper cones (such as in the popular Atwater Kent early speakers) were attached to moveable pole pieces by a mechanical linkage instead of having a metal diaphragm. In any case, they all required a fairly strong permanent magnet in order to give usable volume.

Back in the old days, they didn't have magnets that used steel alloys like Alnico nor did they have ceramic type magnets - all of which are nearly impervious to demagnetizing. So, mechanical shock, inadvertent AC voltage on the coil and "aging" could cause the speaker's permanent magnet to weaken in strength. The typical test for a good magnet was to touch the magnet face or pole piece with a screw driver. As Mr. Ghirardi says, a tenacious "pull" should be felt. If the attraction is weak then the magnet needs re-magnetizing.

Be aware that there are any number of reasons why these speakers may work poorly or not at all. Be sure that you've checked out the speaker for other faults before going to the trouble of re-magnetizing. Reasons for failures that I've personally run into are:

- An open coil or lead wire. Its not uncommon to have the lead wire separate from the coil right where they're soldered together. Its a touchy job, but not impossible to fix this situation.
- Metal particles and/or flakes of old coil varnish collected in the airspace between the magnet and the diaphragm or moveable pole piece. It may take a disassembly to take care of this problem.
- Some of these speakers had an "operator accessible" adjustment that optimized the attainable volume. Sometimes rust/corrosion and/or mis-adjustment caused problems.
- The speakers that have paper cones are commonly subject to tears, distortions due to dampness, and separated glue seams and joints. (Look for a future 'Box article on how to repair/replace these cones)

The basic process of re-magnetizing involves placing the depleted magnet core through a coil of wire which has a momentarily strong DC current passing through it. The coil, as described in the book, is made on a form consisting of a 1.25" diameter round dowel fitted with flat end plates - similar in appearance to a typewriter ribbon or film reel. The width of the form, or the distance between the end plates is 7/8". At least one of the end plates needs to be removable so that the finished coil can be removed. The book suggests that strips of cotton or other insulating material be used to cover the form before the wire is wound on.

The coil itself is made up of 196 turns of #16 AWG enameled covered wire laid down in 14 layers of 14 close wound turns each. This amounts to a pound of wire - a unit of measure in which the wire can be bought. When you are finished with the windings, you need to continue with the taping so that the coil will not fray and will stand up to use. Perhaps you might want to attached sturdier multi-strand lead-in wires such as you find on a power supply transformer. Just make sure that the "hole" in the coil is kept clear for its intended use.

This coil, as designed, should draw about 12 amps on a 6 volt car battery. Guess what? Dave couldn't find a 6 volt car battery! So, being the resourceful rocket engineer that he is, he amazingly discovered that he had a 12 volt battery in his old heap, right out there in the garage (would you ride on a rocket designed by this guy?). In order to accommodate the higher voltage, Dave changed the wire size to 22 AWG and increased the winding to about 200 turns.

A safety point, that Dave made more than once, is that you must be VERY cautious and aware that either voltage version of this coil will heat up quickly due to the fairly high current draw. However, as indicated below, only a momentary application of voltage to the coil is necessary.

The actual re-magnetizing process goes like this;

The magnet is slipped through the coil. Position is not important so long as some part of the magnet is ALL the way through the coil.

A "keeper" of soft steel MUST be in place across the pole faces before the coil voltage is applied. this is very important in order to properly conduct the magnetic lines of force through the magnet core. The keeper must lie smooth and flat on the pole faces - just like they did on those toy magnets that we had when we were kids.

The coil is momentarily placed across the battery voltage - for no more than a second. Again, be VERY careful at this point concerning coil heating. You could, of course, use a power supply instead of a battery, but you'll need one that can supply about 15 Amps.

With your third hand(!?), and while the coil is connected to the voltage, strike the magnet with a sharp blow with a small hammer. Presumably this helps the steel molecules to align magnetically.

So that's it. Careful re-assembly should have your speaker as good as new. By-the-way, I understand that by the time Dave finally got around to buying some really good speakers, he was so old that they didn't sound any better to him than his old horn speakers did!

Swap Shop

FOR SALE: Thousands of tubes, hundreds of radio parts, panels, meters, surplus, etc. R5-D3 electronic surplus, Bob Lee, 6111 SE 82nd Ave., Portland, OR, (503) 774-6560.

BUY, SELL, & TRADE: Vintage Radio, Early Television and Hi-Fi.

Wanted: Tubes, Parts and whatever you might have related to early radio & TV. Visit my web-site at: < <http://www.radiolaguy.com> > or e-mail me at: < sonny@radiolaguy.com >

Thanks, Sonny Clutter, phone (360) 834-5741

FOR SALE: Guild "New Englander" maple roll-top desk stereo/record changer. Probably the largest unit they ever built. 1960's-23 tube unit with reverb option and manuals. \$150. Ampex 400 tape recorder in shortie metal console, manual. \$100. Still have PM and dynamic speakers to sell very reasonable. Jerry Talbott (503-649-6717)

WANTED: The Crystal Radio Guy wants crystal sets and toy germanium diode radios. Buy outright, or trade for other radios. Galen (503) 231-9708.

WANTED: Zenith tube shields. Have non-Zenith shields (Philco, other brands) to swap. Contact Dick Dielschneider.

WANTED: **White plastic knob with a long shank for a Bendix 55L3 white plastic table radio. Rick Walton, (503) 284-5648, rwalton@teleport.com.

Leads and Needs

Hickok TV-3B/U tube tester. Located in Canby, OR. Contact Pete Avery, (503)266-4010.

1946 Magnavox radio/phono console in Hepplewhite cabinet. Asking \$140. Contact Mrs. Humphries at (503) 284-1322.

Dick Bixler needs information on the dial for a Zenith 12A58.

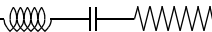
Ray Elkins needs schematics and an upper dial escutcheon for a Buckingham 80.

Murlan Kaufman needs a takeup belt for a Webcor 2323 tape recorder.

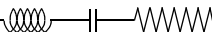
Roster Corrections & Updates

Welcome to all our new members, and welcome back to our returning members. We're glad to have all of you with us. And don't forget to note Dick Bosch's new address.

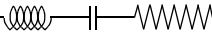
New Members:



Kaufman, Murlan **R**
14744 NW Forestel Loop
Beaverton, OR 97006-5436
(503) 690-2943
General Interest



Ofria, Russel **R**
8432 Darby Avenue
Northridge, CA 91325-3708
(818) 989-5222
Speakers & Early Radio



Spence, Theodore (Ted) **R**
10430 SW 66th Avenue
Tigard, OR 97223-9184
(503) 245-1529
Small Table Models 1930-'50



Stewart, Craig K7SKP **R**
3502 SW 170th Avenue
Burien, WA, 98166-3154

Returning members:



McMullen, Dave **R**
11842 Marion Rd.
Turner, OR 97392
(503) 743-2253



Roy, Michael

13911 NE 9th Street
Vancouver, WA 98684
(360) 254-8082

Zenith T-0, Hallicrafters, and early transistor sets

R



Sanguinetti, Grego

14705 NW Springville Rd.
Portland, OR 97229
(503) 645-0162

Art Deco Radios, audio equipment

R



Vandehey, Damon

17207 SW Siler Ridge Lane
Aloha, OR 97007
(503) 590-5118

1930-1950 Wood & Plastic/Early Transistor

R

New Address:



Bosch, Richard M.

5000 Eureka Way
Vancouver, WA 98661-5906
Table radios

R

The Back Page

These two diagrams of a crystal receiver are taken from *Essentials of Radio* by Morris Slurzberg and William Osterheld, published in 1948 by McGraw-Hill. The copy that these drawings were taken from was a text book used by the ARA Technology Institute for Maritime Electronics, 39 Cortlandt St., New York 7, NY.

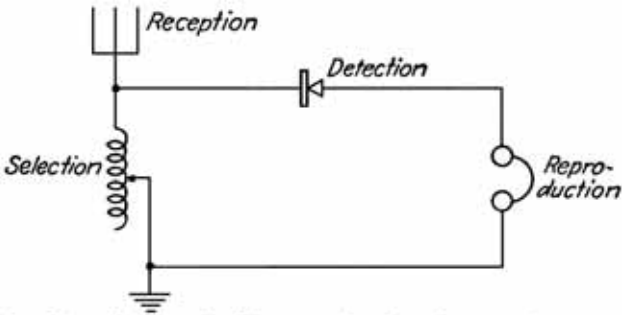


FIG. 3-2.—Schematic diagram of a simple crystal receiver.

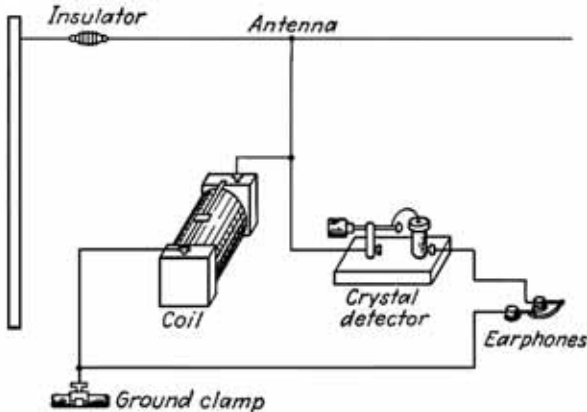


FIG. 3-3.—Illustration of the parts and circuit of the simple crystal receiver shown in Fig. 3-2.

Meeting Location!

Our monthly meetings are held in the Abernathy Grange Hall, located at 15745 S. Harley Ave. in Oregon City. Here are instructions for getting there and a map.

1. Take the OR-213 exit, exit number 10, towards PARK PLACE/MOLALLA.
2. From the South, turn RIGHT onto SR-213, or from the North, keep RIGHT at the fork in the ramp and merge onto SR-213.
3. Turn LEFT at the first traffic light onto CLACKAMAS RIVER DR.
4. Turn RIGHT onto S FORSYTHE RD.
5. Turn LEFT onto S HARLEY AVE. The Abernathy Grange Hall is a little past S. Taylor Lane.

The written instructions came from “Map Quest” on the Internet; the map is scanned from a AAA map with much detail removed for the sake of clarity.

