

The

Call Letter

January 2016

Vol 42, #2



February Meeting begins at 9:30

The Northwest Vintage Radio Society

Post Office Box 82379
Portland, Oregon 97282-0379

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.

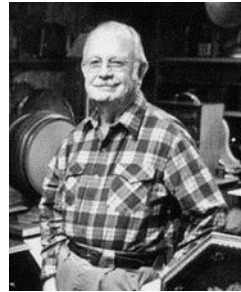
Membership in the Society is open to all who are actively interested in historic preservation. The dues are \$25.00 for domestic membership, due on January 1st of each year (prorated quarterly).

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 at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 9:30 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 shows, and radio sales which are advertised in the Call Letter and are held in and around Portland.

With each issue of the Call Letter, we remember Jim Mason, a charter member of the society who remained active until his death in 1999. A generous bequest from Jim's estate ensures the vitality of the Northwest Vintage Radio Society, and continued publication of the Call Letter.



Society Officers for 2016:

President	Mike McCrow (503)730-4639	tranny53@frontier.com
Vice-president	Bryon Toon (503) 266-5527	
Treasurer	Ed Tompkins (503) 573-3895	edtomp@Q.com
Recording Sec'y	Liles Garcia (503) 649-9288	landn2@frontier.com
Corresponding Sec'y	Pat Kagi (503) 694-6149	kagi.pat@con-way.com
Board member at large	Mark Moore (503) 286-5224	mark@pdxhistory.com
Librarian	Damon Vandehey (503) 459-1777	
Editor	Don Hanson	vanguard4@lycos.com

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February Feature

Program Topic for our February 2016 meeting will be a Rare and Uncommon Radios.

Announcements

February Meeting

The February meeting will be on Feb. 13 and starts at 9:30 AM

Spring Swap Meet

Our Spring Swap Meet will be on April 9, 2016.

Visit our web site at:

www.nwvrs.com

Find us on Facebook:

www.facebook.com/nwvrs

On the Cover

Transmitting tube from Bob Lee's – Bob Walters, photo by Chris Butler

Editor's Note

Please have Call Letter Articles and Contributions in by February 27.

Need a volunteer to take notes on the Monthly Feature entries. Don't be shy!!

Big Thanks to Brian Toon for finding the 2nd pic in Art's article!!

Minutes - January 9, 2016

NWVRS Meeting Minutes-- President Mike McCrow called the January 2016 meeting of the NWVRS to order at 9:30 AM. Members pledged allegiance to our nation's flag. There were 45 people at our meeting today. Vince Donnerberg and Steve Lillie attended today as guests. Welcome Vince and Steve!!

Mark Moore fell and broke both of his wrists. We have an invitation from the Ross Island Kiwanis Club for a speaker. Charlie Kent will look into this further. January Call Letters were available at our meeting today. Those Call Letters that are not picked up will be mailed.

The Program Topic for February will be "Rare and Uncommon Radios". Liles read the minutes of the December meeting and they were approved as published in the January Call Letter. Pat Kagi reminded everyone to pay their dues. Damon mentioned that several books have been added to our Library. Our Spring Swap Meet will be on Saturday, April 9. Treasurer Ed Tompkins updated members on our Mason Fund. He also updated us on our Society's income and expenses.

Members would like to thank Janet McCrow for her help at our Christmas Party. Janet's name was missed by mistake in the meeting minutes last month. Many thanks to Janet!! The Program Topic for today is "Items from Bob Lee". Members showed and discussed the radios and other items that they brought.

Liles Garcia Secretary

Calendar of Events

February 20, 2016. Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, OR at the Polk County Fairgrounds. *This is an ARRL sanctioned event.* <http://www.w7sra.com>.

March 5. Mike & Key 35th Electronics Show & Fleamarket. Puyallup fairgrounds exhibition hall, Puyallup, WA. This is an ARRL sanctioned event. <http://www.mikeandkey.org/flea.htm>

March 19. MicroHams Digital Conference. Redmond, WA. This is an ARRL sanctioned event. <http://www.microhams.com> . Register at <http://www.microhams.com/mhdc/microhams-digital-conference-2016/>

April 9. Yakima Hamfest. Yakima, Washington. Selah Civic Center, 216 South 1st Street, Selah, WA. <http://yakimaamateurradioclub.com/yakima-hamfest/>

April 9 & 10. Communications Academy. South Seattle Community College, Seattle, WA. This is an ARRL sanctioned event. <http://commacademy.org/>

April 22. Idaho State Convention. Boise, ID. This is an ARRL sanctioned event. <http://voiceofidaho.org/> Contact: Larry Bickham, WA7ZZS. (208)453-1666, wa7zsz@arrl.net

May 1. Maple Ridge Swap Meet. Pitt Meadows, BC. http://rac.eton.ca/events/detail.php?event_ID=1774

May 14. Stanwood Camano Amateur Radio Club Hamfest, Stanwood Middle School, Stanwood, WA. Contact: Fred Laun, w7pig@arrl.net <http://www.scarcwa.org/>

May 20-22. Washington State Search and Rescue Conference. Longview, WA. <http://www.wasarcon.org/>

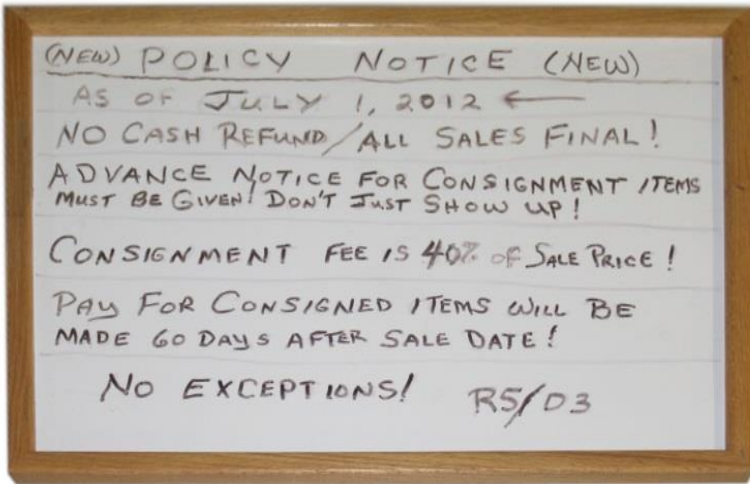
May 20-22. River Radio Campout 2016. Pateros WA. Free "dry" camping along the Methow River at Pateros. Always the weekend prior to Memorial Day Weekend. Contact Roger W7CH w7ch@arrl.net (509)687-3919. <http://lakechelanradioclub.webs.com/> Flyer in PDF. (195K)

June. 48th Annual Apple City ARC Hamfest. Apple City ARC. Dryden Gun Club. Dryden, WA. <http://www.qsl.net/w7td/> .

Monthly Feature

Items from Bob Lee's store "R5/D3"

Photography by Chris Butler



Brian Snawder



Dan Howard



Dick Howard



George Kirkwood



Bill Weigel



Charlie Kent



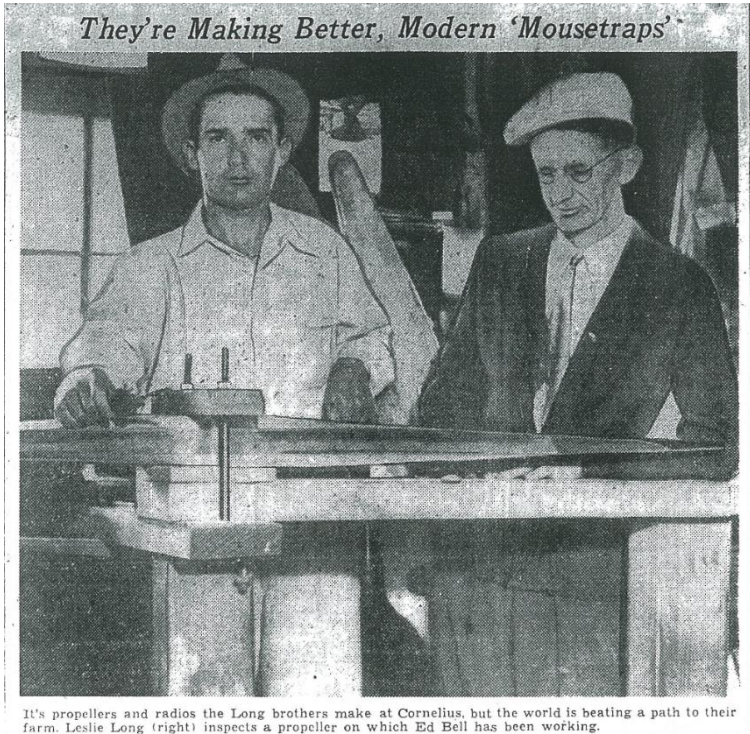
Bob Walters



Mike McCrow

The Long-Crosley Connection

By Art Redman



The Long Radio Works of Cornelius became authorized Crosley Distributors advertising in the Oregonian issue of November 7, 1926. The Long Brothers never advertised their radios although their battery radios had several models numbers the B-5, L-5, F-5, and a Model S-8; an eight-tube superhet assembled with Remler parts.

The most prominent publicity for the Long Brothers was in The Oregonian issue of July 31, 1938: "Worldwide Industry Rises from Modest Oregon Farm". The article has a picture of Leslie Long showing a thin forty-eight year old man wearing horned rimmed glasses, a silk tie and a prominent nose. Mike Parker, a Long Radio collector, described him as "rather dapper" upon viewing the picture in 2009.

The 1938 article praises the Long Brothers propeller business and their light airplane business. The craved propellers made of wood are similar to fans and

Long adapted them to fruit dryers. The industrial fans became the main product of the Long family business. The other two brothers Carl and William operated the 200-acre farm raising corn and grain. The brothers also made electric fence

controllers. Several of these controllers had survived having ac power transformers and other surplus radio parts.

The Long Radio Works also advertised an ad in the Oregonian issue of January 7, 1945 to sell an “old style foot press good condition and a Briggs and Stratton one horsepower motor in perfect shape”. Whether this sale had to do with Leslie’s Long’s ill health is unknown. He passed away on January 18, 1945 at the age of fifty-five on the family farm located on NW Long Road. His obituary appeared in the Hillsboro Argus.

The family radio business became limited to repairs made by George Dewey Long “the radio repairman” until 1953. George placed labels when he worked on a radio “Long Radio Works, Standard since 1912, Cornelius—Oregon”. The 1912 date refers to the year Leslie Long constructed his first variometer. George also wrote “Long Radio Works” in pencil on a Falck Advance Model similar to the one seen on Sonny Clutter’s web site.

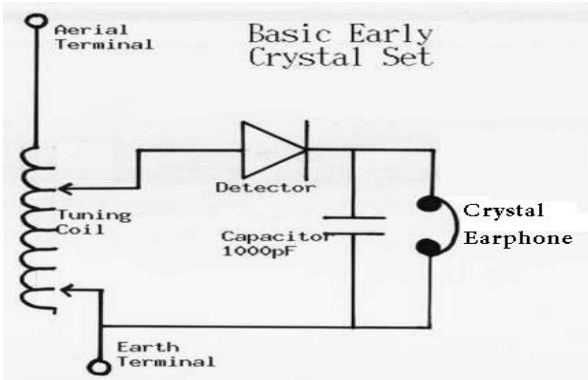
One other set George Long worked on is a Crosley three knob table model set having an airplane dial, two bands, and six tubes which appeared in a April 2006 Call Letter issue written by Mark Richardson. G. Long replaced a type 75 tube on April 4, 1940. Type 41, 42, and 80 tubes were replaced on February 5, 1950 according to paper tags on tubes. An electrolytic capacitor was replaced on January 21, 1947.



The Crosley link to Long Radio Works is prominent and is the smoking gun of evidence on Long labeled ac sets. Long Radio Works did not manufacture ac sets in Cornelius but repaired and sold the Crosley sets. One Long labeled radio is a three-dial six-tube ac set in a lowboy cabinet with upper window dial and lower cloth grille owned by NWVRS member George Kirkwood which appeared in Antique Radio Classified in 2006. The radio is almost identical to the 1929 Model 1-K Merrymaker series as listed on the Radio Museum web site. The model 1-K is not in Riders. By Discovering that Long Radio Works sold Crosley models beginning in 1927, I assume this Long labeled radio is really a Crosley make of the Merrymaker series.

The Aspiring Radiotrician

By Sid Saul



Mystery Circuit -- Why is it still not working?

This month we are presented with the basic crystal set. I was ten when I built my Official Cub Scout Galena Crystal Set. This right out of my hand-me-down official 1954 cub manual. I still retain this book passed down from my older brother. He having no interest in radio whatsoever. This proving once again my theory that radio keeps us forever young, and that there is at least one in every family. It was easier in my later years forgoing the galena crystal and using nothing more than a water pipe ground, a 1N34A diode acquired from Radio Shack, and my official Scout 2000 Ohm magnetic headphones. You know, the thing between the ears with those round metal plates just under the screw-on plastic covers? I'm talking about headphones here! I present this as another attempt at my Mystery Circuits. Here we see the familiar tapped coil, the .001 uF or 1000 picofarad fixed capacitor. This capacitor always a mystery in my early experiments. And lastly I am using a high impedance crystal earphone.

Building this today or fifty years ago would prove a disappointment. Can you see the error presented in this schematic, and help this perpetual ten year old earn his long sought-after merit badge?

Until next time from your Aspiring Radiotrician, Sid

WEIRD CIRCUIT WALKTHROUGHS

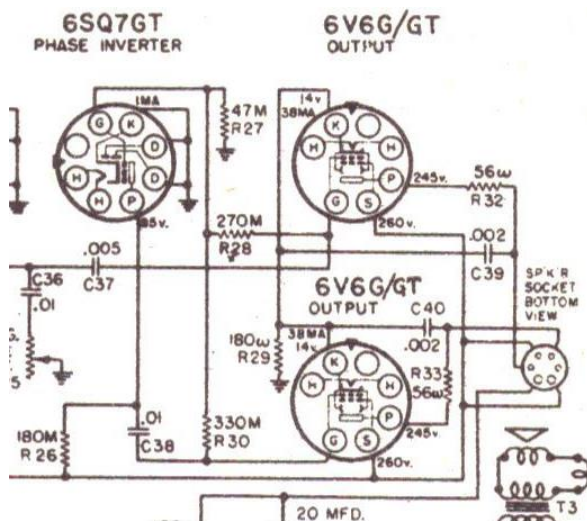
By Dave Wise

SILVERTONE 7050

I recently repaired this WWII console for a friend, and encountered some circuits I thought worth describing. The pictures are excerpts from Rider's page 14-27 for Sears, in a high-resolution scan I made at the Multnomah County Library Central branch, which still has an entire set of paper originals. The librarian said I was the first person in *years* to use them. If you can't read that low-res free PDF, get to the library!

This set tunes four bands. A is traditional Medium Wave domestic broadcasts. B is general-coverage shortwave, from 6MHz to 18MHz. C and D are "skip bands", covering 31m (around 9MHz) and 25m (around 15MHz) respectively. C and D are easier to tune than B, because they "zoom in" on a small portion of B and spread it across the entire dial.

Note that resistors marked "M" are so many thousand ohms. (Latin *mille*, "thousand". Later they switched to Greek *kilo*. Good move!) Megohms are "MEG".



1. Class A Push-Pull Output

The AF power output stage is two 6V6's using cathode bias, nothing strange there, but the cathode resistor is not bypassed. As long as the grid swing is equal and opposite, and neither tube cuts off, any increase in one tube's cathode current is exactly balanced by a decrease in the others. Therefore, the cathode tie point is electrically quiet, and no bypass cap is needed. If the tubes or the drive are out of balance, the unbypassed resistor provides negative feedback which reduces the imbalance. One thing to note is capacitors C39 and C40, which bypass RF and spikes. As originally wired, these caps have to withstand the spike plus B+. I put in a single .001 1KV cap wired from plate to plate instead of the two .002 caps that were in series.

2. “Floating Paraphase” Phase Inverter

See page 525 of the Radiotron Designer’s Handbook, Volume 4.

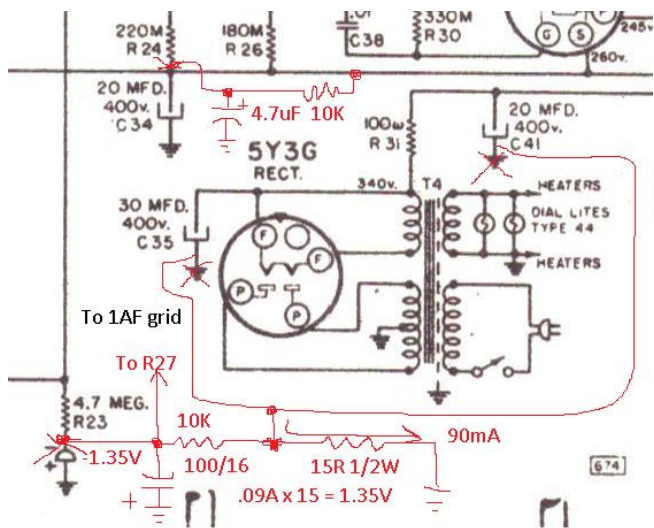
A modern circuit designer would call this 6SQ7 circuit an inverting op-amp with finite gain. The goal of any op-amp is to do (with its output terminal) WHATEVER IT TAKES to keep the input at 0. Here, whatever happens at the 6V6 end of R28, the inverter does the same only opposite at the 6V6 end of R30. Since our op-amp has less than infinite gain, R30 has to be larger than R28 to make up the difference. R27 comes into it too. Let’s solve for gain, assuming perfect balance. A +10V swing on R28 and a -10V swing on R30 causes a +0.24V swing at the grid. $10V/0.24$ is 42. The plate resistance of a 6SQ7 at 150V and 0.5mA is about 100K, making the total load about 50K. Gain is $G_m(R_l \parallel R_p)$ or $(1000\mu mho * 50K)$ or 50. Pretty close. If tube gain were infinite, R27 would not matter, because the tie point would be negligibly close to 0V. While I was replacing resistors (because they were all high), I noticed a serious design gaffe. The phase inverter has no bias! The design of the tube socket made it inconvenient to lift the cathode, so I redesigned the power supply, adding resistance in the negative leg to add “Back Bias”. I depressed the cold end of R27 to about -1.4V.

3. Bias Cell

The 6SQ7 first audio amp got its grid bias from a “Bias Cell”, a small battery designed for maximum life with no current drain. “Maximum life” is not forever, and the cell was flat. In AA5 radios, the grid current resulting from electron strikes is thought to be enough to bias it, if the grid resistor (R23) is several megohms. I wasn’t satisfied, and I tied R23 to the Back Bias source I created for the phase inverter above.

4. Hum

At this point I noticed a small amount of hum, in spite of new reservoir caps. I traced it to the 1AF plate supply. I eliminated 90% of it by decoupling the 1AF B+ with a new resistor and capacitor. Since the phase inverter gain is only 1x, it doesn’t need to be on the quiet B+.



Unfortunately we’re out of space. Tune in next month for the exciting conclusion!! – Ed.

Swap Shop

Temporary Ads: Run for 3 months unless reset requested (each month adds one asterisk *)

Permanent / Semi- Permanent Ads: Marked with a hash mark #

Powerstat Variac \$35 OBO

Variable autotransformer made by Superior Electric. 120 Vac in and 0 to 140 volts ac out; rated at 7.5 amps. Great for testing appliances or old radios. New cord-works good. Contact Craig Wohlgeomuth at 360-573-6616 or e-mail cw2engineering@comcast.net



** Wanted: A Dial Glass, with three bands and dial pointer for Philco 41-260 Console or any other Philco. Also in the June 2010 Call Letter I had an article on my Minerva Tropic Master Model W117 that I sold and I would like to buy it back. I will be at the April swap meet so anybody can bring the dial glasses or the Minerva. Homer "Jim" Myers 1-509-525-6264

For Sale: to purchase NWVRS hats, jackets, name badges, or T-shirts, please contact Wendy Kent at (503) 281-9335

Special Sale: Large collection of high-end quality radios that range from mid-1920s to late 1950s and into the 1960s for sale. Only NWVRS, PSARA club members and personal guests are invited! For appointment call Steve Berglund 206-244-6428

Amplitrex tube testing service. Highly accurate tube testing with computer printout. Can test 211, 845 and other rare and hard to test tubes. Will trade testing for tubes, parts, etc. robertwstevens@frontier.com

1000 SW UNION.
1 50-TON bench press, 1 old-style foot
press, good condition, 1 Briggs & Stratton,
1 h. p. motor, perfect shape. LONG RADIO
WORKS, Cornelius, Or.
DOUBLE WOOD BUNKS with steel
C11 95

**...it's always
a Sunny Day at...**

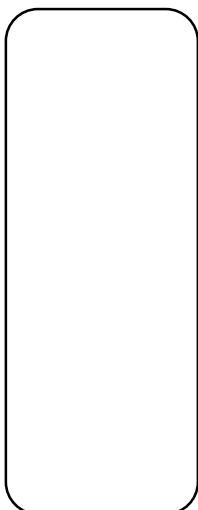
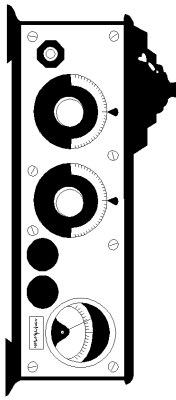


**In the Portland Metro area tune your
vintage sets to some of the
great music of the last 50 years.**

KKOV 1550 AM



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