

The

Call Letter

April, 2002
Vol. 28 — No. 4

Grid Leak Drip Pan

Uniform
Leakage
(Maybe)



Automatic
Control
(Perhaps)

Patented and Patents Pending — Who Cares ?

The grid leak drip pan simply swings from the body of the leak, in the manner indicated above.

Illustration reproduced from folder of the Leslie F. Muter Co.

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 \$20.00 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).

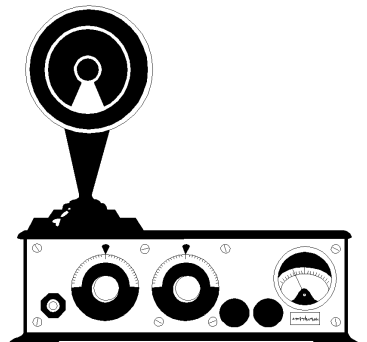
Other Society functions include guest speakers, auctions, radio show, and radio sales which are advertised in the *Call Letter* and are held in and around Portland.

Society Officers for 2002:

President	Wendy Johnson-Kent	(503) 281-9335
Vice-President	Cliff Tuttle	(503) 666-7005
Treasurer	Ed Charman	(503) 654-7387
Secretary	Liles Garcia	(503) 649-9288
Board member at large	Charlie Kent	(503) 281-9335
<i>Call Letter</i> Editor	Rick Walton	(503) 284-5648
Librarian	John Bucholtz	(360) 693-7135

The Society's address is:

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



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On the cover: Why, it’s a grid-leak drip pan, of course! In the spirit of April 1st, it graces our cover this month. The article that accompanied the picture appears later in this issue.

The next meeting is on April 13, 2002.

Monthly feature: Colored radios excluding black, white, or brown.

Tailgate swap meet starts at 8:30!

Visit our web site at <http://nwvrs.org>.

May Call Letter Deadline: April 29, 2002.

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

It's another full-to-the-brim issue. My thanks to Dan Howard for sending me the article and illustration of the Grid Leak Drip Pan. He gave it to me several months back, but I knew it was destined to run in April.

Make note of the changes to the membership roster. If there is a change in your address, phone, e-mail, or collecting interest, be sure to let me know so that we can publish it in the Call Letter and update the roster.

Ron Hershey and Liles Garcia played hookey from last month's meeting to attend the annual hamfest in Puyallup, Washington. This year Ron remembered his camera and he shares photos and a report with us.

I must especially thank Glen Bricker for helping me out with my own photographic goof. Somehow in the distraction of a film change, I failed to get a photo of his Philco Model 51 radio and clock. Glen was kind enough to send me a photo of his radio that I could use in the Photo Display. He also sent me the photo that appears below of he and his wife, Lucille, as they celebrated his 55th Wedding Anniversary.

Voila this month stands out for some really great finds by members. Wouldn't we all love to find a Scott like the one Dave Brown found?

Next month is our Spring Swap/Sale, and the flyer for that event appears inside the back cover. These flyers will be available in both the half-sheet and full-sheet sizes.

Congratulations!

On March 15, Glen and Lucille Bricker celebrated 55 years of marriage. Here's a photo Glen was kind enough to share with the club. The radio in the picture is a 1932 General Motors "Little General."



NWVRS 2002 Calendar of Events

- April 13** Regular monthly meeting 10 am; tailgate swap 8:30.
- May 11** Spring Swap Meet in lieu of regular meeting.
- May 11** Hamfest, Stanwood-Camano ARC, Stanwood, WA.
- June 8** Regular monthly meeting 10 am; tailgate swap 8:30.
- July 21** Concours d'Elegance antique auto show, Forest Grove.
- July 19-21** Montana State ARRL Convention, Glacier/Waterton Hamfest Committee, East Glacier, MT.
<http://www.gwhamfest.org>
- August 2-4** Pacific Northwest DX Convention, Portland, OR. Willamette Valley DX Club
<http://www.wvdx.org>
- September 14** Regular monthly meeting 10 am; tailgate swap 8:30.
- September 14** Hamfest, Radio Club of Tacoma, Graham, WA
<http://w7dk.org>
- October 12** Regular monthly meeting 10 am; tailgate swap 8:30.
- November 9** Regular monthly meeting 10 am; tailgate swap 8:30.
- December 14** Regular monthly meeting 10 am; tailgate swap 8:30.

Roster Corrections & Updates

These are e-mail address changes only. Ed's was incorrectly listed (your editor apologizes for the typo) and Rick's changed after the roster went to print.

Ed Cook: [hopopco1@attbi.com](mailto:hpopco1@attbi.com)

Rick Walton: rwalton@easystreet.com

It's a pleasure to return Scott Hoke to the roster:

Hoke, Scott
6978 SW Tierra del Mar Dr.
Beaverton, OR 97007
(503) 646-9392
Tube Radios, incl. consoles.
Desk.jet@worldnet.att.net

R

NWVRS Meeting Minutes

By Tony Hauser for Liles Garcia, Secretary, NWVRS

President Wendy Johnson-Kent called the meeting to order at 10:05. The minutes from the February meeting were approved by a voice vote. The Treasurer's report was presented by Ed Charman. The members welcomed guests Mel Deboer and Warren Berg. There was no good and welfare to report.

Old Business

- The 2002 NWVRS membership roster was available at the meeting. Wendy thanked Rick Walton for his efforts in creating the roster.
- Gordon Phillips asked members to contact him in they are interested in buying black or brown stain/dye from Sherwin Williams. The stain/dye can only be purchased in 8-pint lots at \$9.50 per pint.
- Vice President Cliff Tuttle presented a report on the budget for the upcoming May swap meet. Meeting attendees decided not to charge admission at the door. Cliff asked for volunteers to help with parking lot security, flyer distribution, and building preparation and teardown. Cliff asked members to send him their ideas for the raffle item before the next meeting.
- John Bucholtz presented the Library report and mentioned that the library is being well-used and that two books are still missing. John has also created an updated library listing.
- Rick Walton presented the Call Letter report. He mentioned that the new roster was completed.

Technical Discussion

Jerry Talbott gave a very interesting Tech Talk on the history of FM radio. Attendees gave Jerry a nice round of applause for his presentation.

New Business

There was no New Business to report.

Leads And Needs

- Scott Hoke would like to find someone who owns a Belmont 60-111. He needs to look at one to use as a guide in creating a new dial for his own Belmont.
- Glen Bricker needs the chassis and dial for an unknown Jackson Bell model. He also needs a chassis for an Abbotwares horse novelty radio.
- Tom Warner needs the chassis for a Zenith 12S245.
- Tony Ranft is looking for someone to refinish the blonde console cabinet to his 1936 Arvin Rhythm Queen at a reasonable price. Contact Tony at (360)944-8489 or at ranft@qwest.net.

Monthly Display

The monthly display featured Philco tube table models. First-place went to Wendy Johnson-Kent, second to Glen Bricker, and third to Sonny Clutter.

Next month's feature will be colored tube sets excluding black, brown, or white sets.

Wendy adjourned the meeting at 11:42.

Following the adjournment, David Wise presented another class on radio alignment methods.

Ordering Dye Stain

from Gordon Phillips

Gordon Phillips has gone ahead and ordered the Dye Stain of Dark Brown and Dark Mahogany. The cost is close to \$60.00 per gallon. The cost to divide it into separate one pint cans is \$2 per can (including the cans) which makes 8 cans per gallon. The only way it can be purchased is a minimum of one gallon.

The cost of one gallon is approximately.	\$60.00
The total cost of dividing into 8 pint cans @ \$2 per can . .	<u>\$16.00</u>
The total cost of the divided gallon is	\$76.00

\$76.00 divided by 8 cans is a final cost of \$9.50 per can.

The Dye Stain is similar to the Scratch Fix pencils we use for touch up. The Dye Stain Gordon has used worked better on old previously stained wood that has been stripped and where oil stains didn't penetrate as well.

To date we have a list of purchasers as follows:

Dark Brown 6
 Mahogany 4

We still have a balance of 2 Dark Brown and 4 Dark Mahogany. For those who would like to have any of the balance, let Gordon Phillips know.

Please bring the money to pay for them at the April meeting.

Remembering Radio (from both sides of the mic.)

By Dick Karman

April April saw many beginnings and endings in radio. One of the early attempts at the gala variety show left the air in April of 1920 when *The Big Show* ended its two year run on NBC. KDKA broadcast a blow by blow of the Ray-Dundee boxing match on April 11, '21 making it reportedly the first sporting event on the air. In April 1925 the first regularly scheduled Chicago Cubs game was broadcast on WGN. *Little Orphan Annie* was first heard in April of 1931. *One Man's Family* was introduced on NBC and *Young Doctor Malone* came to CBS in April of 1932. *Your Hit Parade* and *Fibber McGee and Molly* both joined us in April of 1935.

Remembering Radio looks at radio's past from the performances and the performers to the inventors, advances, promoters and failures of the Golden Years of radio. Your reporter would welcome any feedback or corrections. Please address them to the Call Letter Editor so he can print them and everyone can enjoy them.

On the other side of the Mic:

In April of 1922 WAAB in Baton Rouge, LA was the 1st radio station with the new "W" call sign - meaning it was East of the Mississippi River. Stations that started broadcasting in April include:

- 04/05/1922 - KOB-AM in Albuquerque, NM
- 04/05/1922 - WDZ-AM in Decatur, IL
- 04/11/1924 - WLS-AM in Chicago, IL
- 04/11/1929 - KLO-AM in Ogden, UT
- 04/15/1924 - WHO-AM in Des Moines, IA

In April 1922 WOI (Ames, Iowa) claims it was the country's first licensed educational radio station - (I thought almost everything in the 1920's was quite educational).

I'll give you a run down on May next month in the *Call Letter*.

Photo Display

Photography by Rick Walton except as noted.

“Your favorite Philco table radio” was the feature at the March meeting. Since they’re all Philcos, only the model numbers are given.



Charlie Kent — J775-124 “Predicta”

Wendy Johnson-Kent — 42KR3
1st place



Sonny Clutter — 49-501 “Boomerang”
3rd place



Glen Bricker — 51, 1932

2nd place

Photo courtesy of Glen Bricker



Sonny Clutter — 53-563



Dave Wise — 39-6



Ed Pittaway — 46-451



George Kirkwood — 20, 193?



Jeff Martin — 46-420



Jim Ellsworth — 37-62



Pat Kagi — 59, 193?



Rick Walton — 42-350



Robbie Robertson — 41-255



Rudy Zvarich — TP-4, 1939



Scott Hoke — 48, 1938



Tony Hauser — 53-561



Ed Cook — 41-225



Mark Richardson — 45C "Butterfly", 1935

Voilà

...new and recent finds by NVRs members

Compiled by Sonny Clutter

Glenn Bricker: Philco Cathedral model 89-19 with shadow meter
Echophone Cathedral model S-3
Troy (Los Angeles) "Skyscraper" tombstone model 444
Abbotwares "horse & saddle" radio

Ed Cook: Just acquired a very rare Emerson model AT 172, Teledial table model as shown on page 106 of Stein's Vol. 2.

Dave Brown: 1937 - E.H. Scott Philharmonic XXX, 30-tube console in almost perfect original operating condition. The cabinet is made of solid walnut and the chassis is beautifully chromed. I also obtained the original installation and operation guide, the service manual, plus nine personal letters from E.H. Scott Radio Laboratories Inc. signed by E.H. Scott himself! A real find! See it at <http://ironradio.com/scott.html>

George Kirkwood: Marconiphone 2, a single tube regenerative with a variometer and filament rheostat. It is the size of a Westinghouse tuner. The top opens and it has room for a battery inside. It comes with a brass base tipped tube and is in pristine condition.

Rick Walton: A Magnavox "Belvedere" R/P console (yeah, I know I said I couldn't squeeze in another one) with a CR-198D AM/SW chassis, and a CR-206D FM chassis. Beautiful polished brass faceplates on the tuners, two 12" speakers. Best guess on year is 1949.

Also a Westinghouse H-398T5 clock radio in an ivory Plaskon (I think) cabinet. Circa 1950.

Play It Again, Sam!

Compiled by Dave Brown

The column where club members can publish their restoration accomplishments!

Dave Wise Still in progress...

Standard SR-G430 "Micronic Ruby" micro transistor radio.

Last time I was working on the output stage's bias circuit. I had thought I could use a 1N60 germanium diode, but I was wrong. Although adjustment of the series resistor (increased 1K to 4.7K) gave the right idle current, it also limited the undistorted output. The output stage of most transistor radios (this one included) is a push-pull pair operated class B. This means that the two transistors take turns conducting, with the other cut off. The cut-off one draws no base current to balance the increased base current in the other, which means that the current drawn from the bias circuit increases.

The original bias circuit was a simple resistive voltage divider: 1K on top, 100 ohms on the bottom, which has an impedance of about 90 ohms no matter what the voltage. The new circuit has a low impedance as long as the diode is conducting, and there's the rub: drive the transistors hard enough, and the diode cuts off. Now the impedance is 4.7K instead of 90 ohms, which limits the maximum base current is only about 0.3mA. There is no room in this radio for extra components, so any solution must be very simple.

Here is my solution. I went back to the original 1K resistor, and replaced the diode with one that has lower forward voltage. Where might I get such a beast? I saw two possibilities. One is a Schottky diode. Here, the junction is not P-N semiconductor to semiconductor, but semiconductor to metal. I know they have lower forward drop than germanium, because they are popular in power supplies, where efficiency is important. But I don't have any handy, and I don't know the exact voltage.

There is another choice, which I did have on hand: a transistor. But I need a diode, you say. Well, a transistor can be connected as a diode, and here's a very important point: properly done, its voltage drop will be *less* than an ordinary P-N diode. How can this be? Answer: connect the base to the collector. Think of what happens when you start putting current in. Semiconductor diodes don't abruptly start conducting at

0.7V (Si) or 0.3V (Ge). The curve actually starts at zero, but since it's exponential, it doesn't "take off" until the above voltages.

Here's the important part. Even at very low currents (and voltages), the device still acts like a transistor, namely, the collector current is beta times the base current, where beta is frequently around 100. So for a given forward voltage, this "diode" conducts around 100 times as much current as an ordinary P-N diode. Put it another way: for a given current, the forward voltage will be less.

I have to confess that I didn't do the math. I just mined another transistor out of my parts set, connected B-C, and put it in my patient. Voila! With the original 1K resistor, the radio's idle current is 12mA, almost exactly the 10mA I was aiming for. And with around 1.5mA available from this modified bias circuit, the miniscule speaker becomes the limiting factor. And best of all, the radio will operate at temperatures and voltages that it wouldn't before. Now it can extract a reasonable percentage of a PC640's energy. At \$8 per pair, that's important! The transistor, which replaces the 100 ohm resistor, *just* *barely* fits.

I also mentioned gain last time. The second IF transformer turned out to be bad. I had dropped this circuit board, and the shock fractured the delicate powdered-iron core. I turned to the coffee can of IF transformers I bought from Jerry Talbott a while back. No go, the smallest ones were too big. Oh well, mine one from the parts set. (By the way, most transistor IF transformers are unique. Each stage has a different turns ratio, probably custom-done for that radio.) With my HP 8640B signal generator connected to the converter's base, I get full output from about 10uV of 80%-modulated 455kHz RF.

I'm putting the set back together.

Regards, Dave Wise

A Report from Puyallup

Photos and story by Ron Hershey

Liles and I went up the night before so we didn't have to get up before dawn on Saturday. We spent the whole day wandering the swapmeet looking for tube receivers but passing most up. I did finally break down as the meet was closing and bought a Hallicrafters S27 (military version RBK-1) at a third of the asking price. It's an am/fm receiver covering 27 MHz to 143 MHz and was an important surveillance receiver at the beginning of WWII. I'm really looking forward to getting it going.

Other than that, we just had a great time talking to old friends and looking at all the goodies.

This is the building occupied by the swapmeet at the Western Washington Fairgrounds.



Two views of the crowds on the first and second floors. I don't know any of the people in the picture. I just wanted to show the size of the crowd.



Liles Garcia examining a National NC-45 receiver.



Brian Toon talking to Dick and Dan Howard at their table.



It Was Radio's Latest Gadget?

Submitted by Dan Howard

Editor's note: This tongue-in-cheek article is from the September, 1927 issue of Radio News and was headlined "Radio's Latest Gadget."

For the past ten years the common radio grid leak has been the favorite victim of the sharp pens of comic writers. In numerous cartoons this defenseless little device has been shown equipped with faucets, lengths of garden hose, sprinkler nozzles, pails, sponges, blotters, water tanks and other contraptions; intended, presumably, to control and catch the leakage from it. However, it has remained for a Chicago radio manufacturer blessed with a sense of humor to actually make and publicly display a grid-leak drip pan, a little nickel-plated brass trough which swings from the body of a grid leak in the manner indicated in the accompanying illustration. (See this month's cover. -ed.)

This great invention was exhibited for the first time a couple of months ago, at the Radio Trade Show held in Chicago, where it was displayed in perfectly serious fashion along with the grid leaks, condensers, choke coils and other legitimate products of the manufacturer. Believe it or not, but a number of visiting dealers thought the device was an article intended for sale, and innocently inquired about prices, package quantities, and so forth!

A printed folder was given away with each drip pan. We are reprinting its contents here so that our readers may acquaint themselves with the attachment:

Functions Of The Drip Pan

“The tremendous strides of radio during the past year are only exceeded by this remarkable invention. No single radio item has ever been able to accomplish so much, in doing so little. The ability of the Grid Leak Drip Pan to perform as well as anticipate irregularities in remote parts of the set with which it is not connected is almost beyond human comprehension. In fact, the inventor himself could never advance any real necessity for its use.

“The exact value of the grid leak has always been a question amongst authorities and yet this simple device easily settles the question for all time. Consider a two-megohm grid leak installed with a Grid Leak Drip Pan, in a position requiring a three megohm grid leak. One megohm immediately drips into the pan which with the value of the grid leak itself gives the proper value of three megohms, as the Pan easily understands the conditions and being very industrious maintains this position in spite of the laws of electricity, which it takes particular delight in upsetting without, of course, spilling its vague contents and *vice versa*.

“While testimonials have been rather slow incoming in, we feel confident that a trial on your part will readily substantiate the great merit of this device. While you grid leak might, again it might not. Who can tell? With summer here, this is at least a conservative sound and logical investment by which you alone can prove the numerous shortcomings of the device. As production will be limited to ten percent of the “B” Power Units made this year, we suggest your early action, although there will probably be a great surplus”

Swap Shop

FOR SALE: Thousands of tubes, hundreds of radio parts, panels, meters, surplus, etc. R5-D3 electronic surplus, Bob Lee, 9770 S.E. Stanley Ave., Milwaukie, OR 97222, (503) 513-0410

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

WANTED: The INGRAHAM man wants radios with wood Ingraham cabinets. If you're not sure if it's an Ingraham, call Ed Cook in Vancouver, (360) 573-1439, or e-mail "hopopcol@attbi.com".

FOR SALE: A wide variety of radios at <http://radiogallerykent.com>. Charlie Kent

FOR SALE: Radiola 106 "Electro-Dynamic" loudspeaker. This is the floor model, AC powered unit with tapestry grille cloth on 3 sides. In excellent condition. \$200. Jerry Talbott (503-649-6717) or jerryt@easystreet.com

FOR SALE: *Philco 37-660 console. Good condition. \$50. Tony Ranft 360-944-8489 or ranft@qwest.net

WANTED: Radiola 60 cabinet with good lid. Jerry Talbott (503-649-6717) or jerryt@easystreet.com.

WANTED: **Dial glass for a Zenith console like the one in this picture. Contact Glen Bricker in Cottage Grove, OR (541-942-3717).



Leads and Needs

See the "Leads and Needs" section of the Meeting Minutes.

Radiolaguy's web page is full of lots of information on early radio, TV and also provides lots of links to other valuable info resources relating to the radio collecting hobby; it's not just a "for sale" site. Be sure and visit the site often. One of the services offered is pictures and information on the entire RCA "Radiola" line from 1921 to 1931 and my "show and tell" page.

May Swap/Sale Flyer

VINTAGE RADIO SALE

AND

SWAP MEET

9 AM - 2 PM

Saturday, May 11

Salvation Army Rose Center
N.E. 18th Ave. and Sandy Blvd.
Portland, Oregon

For information contact:
Cliff Tuttle, 503-666-7005

www.nwvrs.org

