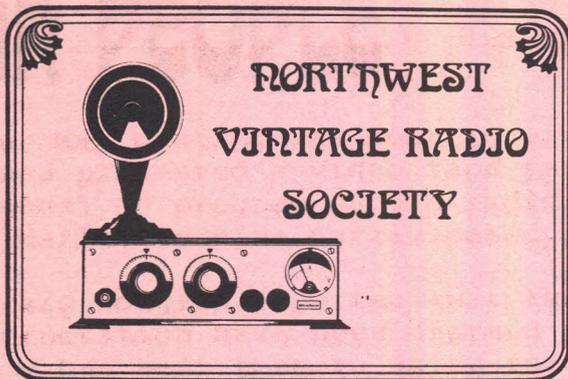


Vol. 4

No. 6



June

1978

# CALL LETTER

XX

NORTHWEST VINTAGE RADIO SOCIETY MEETING

JUNE 10, 1978 10A.M. at THE BUENA VISTA CLUB  
16th and JACKSON ST. in OREGON CITY

SPECIAL HORN SPEAKER DAY--LET'S SEE HOW MANY WE HAVE

XX

## GRID LEAKS USE SO LITTLE UNDERSTOOD

Re-printed from "Resistance the Control Valve  
of Radio" September 1927 contributed by:  
Craig Hoaglin

Well Jones, asked Lynch, what do you know about  
grid leaks.

"Well, of course I know that they are used in the  
grid circuits of detector tubes, but I must confess  
that that is about the extent of my knowledge of the  
subject. I would like to know, however, why there  
are so many sizes of grid leaks and what it is that  
makes one grid leak any different from another. They  
all look alike to me.

In the first place, said Lynch, grid leaks are  
far from being alike. The grid leak is such a small  
item and its exact use is so little understood by  
most fans that it has never been given the attention  
it deserves.

In the old days of radio a grid leak consisted simply of a few pencil lines drawn between two terminals on a cardboard or fibre disc. Later pieces of fibre were impregnated with graphite and enclosed in glass cartridges. Many of the grid leaks still on the market are as crudely made. Such grid leaks or resistors vary considerably due to atmospheric changes and are often practically useless. The fact that a receiver will work even with the poorest type of grid leak or with no leak at all has led many fans to believe that it makes no difference what kind of grid leak is used.

The fact that a car will run on the poorest of gasoline is a parallel case, but any car owner knows that a car will not run as smoothly and will not have the same pep when poor gasoline is used as when a good grade is used.

A proper understanding of the function of the grid leak in a detector circuit can best be gained by considering the detector action of a detector tube with grid condenser and leak.

A diagram of the conventional grid condenser and leak combination usually used in a detector circuit is shown in Fig. 1. This shows the parallel connection of grid leak 'GL' and grid condenser 'GC'.

Continued on page 6

## CALL LETTER

The Call Letter is a monthly publication of the Northwest Vintage Radio Society which meets the second Saturday of each month at the Buena Vista Club House, Sixteenth and Jackson Streets, Oregon City, Oregon.

**Editor** ..... **Bob Hay**

**Staff** .. Tom James, Cathi Hay, Mark Moore

Address all correspondence regarding this publication to: The Call Letter,  
P.O. Box 02379, Portland, Or. 97202

# OUR PEOPLE

By:  
Hugh Ranken

Our May meeting was most interesting. Tom James presented a video tape recording of the Channel 10 program on old radios in which he and Harley Perkins participated on March 29th.

Craig Hoaglin reported that the Articles of Incorporation have been drafted and the attorney has sent them to Salem for review by the Corporation Commission. We are seeking non-profit status.

Frank Plaisted has been named our new corresponding secretary.

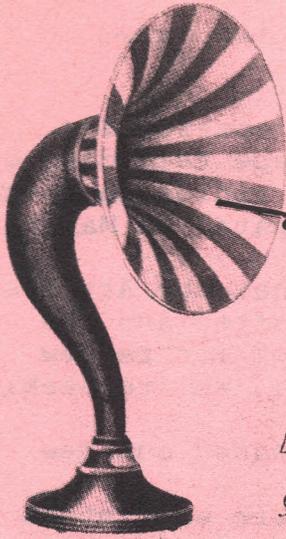
Chuck Kibler brought a rare and interesting Model SR-25 Northwestern Radio which he recently acquired. Looks to be in excellent condition too. Chuck also displayed a fox-hole "crystal" set he had made, substituting for the crystal, a detector made from a safety pin and a razor blade. Don Iverson had an excellent display of crystal sets.

June meeting is Horn Speaker Day. There must be a number of horns among the members. Bring them to the meeting and lets have a good display. If each meeting were designated for display of some particular equipment or a certain make of radio, or makes long forgotten, a lot of interest would be generated.

We are going to have a contest with judging in the following categories:

1. Restoration
2. New construction
3. TRF
4. Home brew
5. Most unique

Judging will be at the September meeting, so you have 3 months to prepare your entry. Restorations must be accompanied by a "before" picture, so if you plan to work over a beat up set, be sure and get a picture before you start.



# ATMOSPHERICA

By J

## Fertility Rite

Lucy Wyre had a Philco  
In nineteen forty two.  
It was made in twenty six,  
But Lucy made it do.

In the fall of fifty seven,  
The Philco quit for good,  
So she bought a new one  
Tho we thought she never would.

Now the old one's up for sale  
And it won't be choicy pickins,  
Since she's kept it in the hen house  
As a roosting place for chickens!

\*\*\*

## That's Life

I get word of a radio find,  
And it turns out to be  
A beautiful plastic job---:  
An Airline, fifty three!

My friend, on the other hand,  
Walks into a store nearby  
And finds an autographed copy of  
The Radio Boys and the Spy!

I admire his accuity,  
Vision, persistence, and pluck,  
But still I cry to high Heaven  
That there ain't no justice in luck!

# POWER SUPPLY

By: Virginia Ranken

The Buena Vista Club held their meeting May 16. Dorothy James and Virginia Ranken gave their report on the Community Club Awards Pay-Off Party held in the Lloyd Center Auditorium. The club was eligible for a \$20.00 Appreciation Award for labels and sales tickets turned in. Keep on saving those labels and sales tickets Ladies!

The next meeting of the club will be on June 20th, with Bobbi Kibler and Dorothy James in charge of refreshments. No meetings will be held in July or August.

Lorena Leete has returned from a 3 week visit to Australia. We are looking forward to hearing all about her trip.

Aunt Sammy is away from the kitchen this month, so we have asked cousin Hattie Belle for a favorite recipe. She thought you might like

## STRAWBERRY GLAZE PIE

4 cups washed and stemmed strawberries

1 cup sugar

1½ tablespoons cornstarch

4 tablespoons sugar

2 tablespoons lemon juice

Baked pastry shell or crumb crust

Leave strawberries whole or cut up, as desired. Sprinkle with 1 cup sugar and let stand for 30 minutes. Drain and add water to juice to make 1½ cups liquid. Mix cornstarch with remaining sugar. Add juice and water and cook and stir until thick and clear. Cool. Add lemon juice. Put the drained berries in baked pastry shell or crumb crust and pour cooled glaze over berries. Chill well and serve with a topping of whipped cream and enjoy!

For the time being, just neglect the grid leak 'GL' and assume that only the grid condenser 'GC' is connected in the circuit. When a radio frequency train is impressed on the radio frequency circuit consisting of the coil 'L' and the variable condenser 'C' which is tuned to that particular frequency, the condenser 'C' is alternately charged positively and negatively as the high frequency current reverses in direction. The changing voltage charges the grid condenser 'GC' alternately positively and negatively and in turn the grid of the tube. When the grid becomes positive it attracts to itself some of the electrons from the filament but when it becomes negative, on the reversal of the current, the electrons cannot leave the grid inside the tube because electrons cannot be emitted from a cold electrode. The successive positive charges will cause an accumulation of electrons on the grid, which results in the grid's becoming negatively charged because the positive charges on the grid cause the attraction of negative electrons. The accumulation of negative electrons on the grid would soon cause a sufficiently great repelling action on the electrons emitted from the filament to prevent the passage of electrons from the filament to the plate, thereby decreasing the flow of current in the plate circuit.

To prevent this condition it is therefore necessary to provide some means, amounting to the insertion of a safety valve, that will allow this negative charge to leak off after the detecting action has been completed for each wave train.

The use of the grid leak resistance 'GL' serves this purpose by allowing the charge to leak off back to the filament.

I have noticed that while there is a large assortment of sizes for use as grid leaks, that the 2 megohm size is generally recommended. Is there any advantage in using grid leaks of various sizes? The best value of resistance to use for the grid leak depends to some extent on the conditions under which the receiver is to be operated. For general purposes a grid leak of 2 megohms is found to be entirely satisfactory.

A higher value of grid leak up to 9 megohms makes for greater signal strength and is especially recommended for the operation of a receiver at considerable dis-

tances from the broadcast stations or for listening in on distant stations. For ordinary local reception the 2 megohm grid leak will be found most satisfactory. If too high a leak is used a knocking or blocking is apt to develop, especially on strong local signals because the high value of the grid leak will not carry the surplus charge away fast enough and permits too great an accumulation of electrons on the grid, which chokes up the tube. If too low a value is used the signals will sound weak and mushy because the charges leak off so fast that the detector action is impaired.

It would seem that the logical solution for the problem would be to use a variable grid leak. Theoretically this condition would be ideal, but practically there is no variable grid leak that is satisfactory for such operation. Variable leaks will develop all sorts of noise through pccr contacts so that the best system to use is to try several values of grid leaks until best results are obtained.

The parallel connection arrangement of grid condenser and leak shown in Fig. 1 was introduced during the time when only one tuning condenser and coil was employed because no radio frequency amplification was used. It was then convenient to use a grid condenser with grid leak mounting clips.

With the growing popularity of additional tuned radio frequency circuits, and the increasing tendency to use gang condensers, the trend has been to separate the grid condenser and grid leak and to use the connection scheme shown in Fig. 2 thus bringing the grid return directly back to the filament through the grid leak 'GL'. A Metallized resistor mounted in a Lynch Leak-Proof single mounting can be used for this purpose. This arrangement has the advantage that it permits the tuning condensers to be ganged together and still makes it possible to bring the grid return in the detector stage back either to the negative or positive filament terminal, depending on the type of tube used in the detector stage.





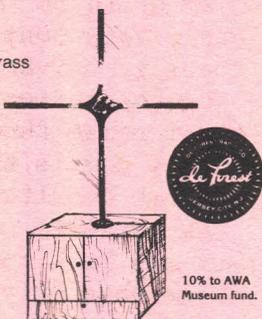
# WORLD RADIOS, ETC. For Sale BY G. STREETER 1924

## PROFESSIONAL REPRODUCTIONS

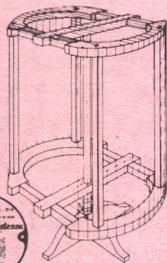
### DeForest LOOP ANTENNA

Beautifully prefinished and assembled with over 100 machined brass fittings and Bakelite parts, with a DeForest decal. Fits all D-7, 7A, 10, 12, and 17 sets. "DeForest wire included."

\$67.50 postpaid



10% to AWA  
Museum fund.



### RADIOLA LOOP ANTENNA AG-814

Precut Mahogany frame with an etched brass name plate and 1924 instruction card. This loop is a great addition to any collection and fun to assemble. Includes radiola type wire.

\$43.50 postpaid

10% to AWA Museum fund.



### Radiola Grand Speaker Grills

Unfinished Mahogany is precision cut to the 1922 pattern. Needs only staining to complete your rare and unusual radio.

**PRICE \$15.50**  
postpaid

### Radiola Antenna Wire

Multi strand copper wire with a brown braided Celulon cover just like the original 500' roll —

**PRICE \$35.00**  
postpaid  
Smaller Lengths — 9¢ ft.

### Radiola V & VI Wooden Tops

Always missing, this solid Maple reproduction is the crowning compliment to another uncommon set. Unfinished.

**PRICE \$19.50**  
postpaid

### "NEW" DeForest Type Green Wrapped Litz Wire Avail.

100' Roll

**PRICE \$10.00**  
postpaid

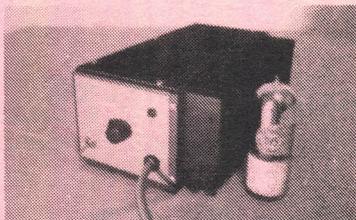
SATISFACTION GUARANTEED ON ALL ITEMS OR RETURNED FOR FULL REFUND.

**GLENN S. STREETER** 4133 VIA NIVEL, PALOS VERDES ESTATES, CA 90274 • (213) 375-5522



For Sale

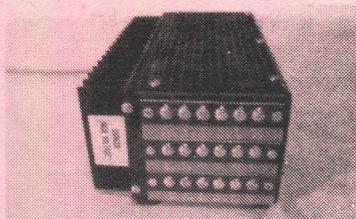
## H-10 POWER SUPPLY



Now! For the first time a premium quality power supply. The H-10 power supply is made of specially designed and the highest quality components (not surplus or used parts).

And it's not being assembled in someone's garage. The H-10 has been contracted by a top-rate manufacturer who builds power supplies primarily for the laser industry. Thus it is fully warranted for a full year.

And no other power supply offers as many regulated outputs.



The Model H-10 is a premium quality regulated power supply designed to power over 99% of all battery radios. The Model H-10 was developed primarily for the radio collector but is capable of operating virtually all battery sets manufactured between 1920 and the end of the vacuum tube era around 1960.

The Model H-10 contains three independent, electrically isolated, regulated power supplies. The "A" supply provides 12 switched outputs between 1.1 and 9V. The "B" supply can deliver up to 6 simultaneous regulated outputs. The "C" supply can deliver up to 8 simultaneous outputs. All outputs feature electronic short circuit protection.

### TYPICAL SPECIFICATIONS

<b>Input</b>	117V AC, 50-60Hz, 80W maximum
<b>Volts</b>	1.1, 1.5, 2.0, 2.5, 3.3, 3.3, 4.5, 5.6, 7.5, 8, 9
<b>"A" Output</b>	Single output switch selected, short circuit protected, ripple less than five millivolts RMS @ 5V and 5A, regulation 0 to full load 0.2% @ 5V, voltage tolerance 5%, overload protection. Using the 1.1V, 3.3V and 5.0V output, allow operation of appropriate tubes with no danger of burn-out from improper filament rheostat adjustment.
<b>"B" Output</b>	22.5V, 45V, 67.5V, 90V, 135V and 180V may be used in any combination with a maximum total output of 50mA. Ripple is less than five millivolts RMS @ 22.5V and 50mA to less than 25mV RMS @ 180V and 50mA, voltage tolerance 5%, voltage regulation 0-50mA 2.5%, fold-back current limiting.
<b>"C" Output</b>	1.5, 3.0, 4.5, 9, 10.5, 13.5, 16.5 and 22.5V, 50mA @ 22.5V, ripple less than five millivolts, voltage tolerance 5%, regulation 0.1% @ 22.5V. All other voltage obtained by a 25mA resistive voltage divider. Overload protected.
<b>Controls</b>	Power switch, A voltage selector switch, LED pilot light
<b>Line Cord</b>	Three-wire, 6 ft., heavy duty
<b>Size</b>	3" H x 5" W x 9" L (includes controls)
<b>Weight</b>	5 lbs., 14 oz.
<b>Limited Warranty</b>	Warranty is limited to repair or replace, at our option, of any defect in materials or workmanship for a period of one year. Warranty does not cover shipping costs.
<b>Ordering Information</b>	Include check or money order for \$149.95 to Glenn S. Streecher, 4133 Via Nival, Palos Verdes Estates, CA 90274. We will pay shipping by UPS.

# RADIO STATIC

By: Glen Gonshorowski

MATCH UP THE TUBE NUMERICAL DESIGNATION WITH THE DESCRIPTION OF ITS FUNCTION.

5U4	HALF-WAVE RECTIFIER
Ø1A	FULL WAVE RECTIFIER
1R5	TUNING INDICATOR
42	TRIODE DETECTOR-AMP
35Z5	PENTAGRID CONVERTER
6AB5	POWER AMP PENTODE

ANSWERS TO LAST MONTHS RADIO STATIC PUZZLE.

- 1 (c)
- 2 (b)
- 3 (b)
- 4 (b)
- 5 (c)

# LETTERS

Hi Bob:

Frank Haley of the Salem Flea market gave me this article called "Relic Round-Up: Remembering Old-Time Radio". After reading it, it seemed to me to be something that we might use for the Call Letter. You don't need to return it, as I am having copies made.

I struck the jack pot Sunday, I picked up four horns, one was an RCA that has a ship funnel design with a slight bow back at the top and it needs some work on the voice coil. One side was repaired but he quit before he had both sides the same, it does run fair though. The others are goose necks, an Air-line, a Utah, and a no name. I got them at the Salem Flea market; never found one at a flea market before that I can remember. I have a 19 tube Midwest, now. No more Kolsters at present however.

I will be pleased to help you on the Call Letter Bob, it's been a long time since I've sent in anything. I expect to come up and help Frank Plaisted if it's needed. I miss many things by being way down here.

Well So long for now.

Joey Tompkins

Ed. Thanks for the article Joe. Your help will be particularly needed since you have much knowledge on the old sets and how they were built.

Congratulations on finding the horns--why don't you bring them to the next meeting so we can all see them.

LETTERS Continued

Good Morning Bob:

Many thanks for that wonderful editorial comment in the April 1978 issue of the Call Letter....many times we feel like the Lone Ranger and knowing somewhere, someone appreciates our promotion.

When we first started in 1971 with the directory, there was a definite negative attitude about anyone who promoted Old Time Radio...I guess many felt anyone who promoted wireless was making all kinds of money which was and is far from the truth...I would gladly trade places with anyone just to get back the time, effort, energy, money we have spent trying to educate not only collectors but the general public as well as well who was hungry for information or services. At the ~~same~~ **sametime** we would not **TRADE ALL THE FREINDSHIPS, EDUCATION, HISTORY LEARNED FOR OR FROM THESE RESULTS AND THE DIRECTORY...especially many parts of the radio history just ain't like some book said it was. I feel through ORAL HISTORY (interviewing with your tape recorder the very old radio pioners) is far better than the traditional way...schools are now teaching Oral history! Anyway we feel there is more of a positive approach to our hobby NOW! I am glad you are trading your publication with other publications in our hobby; you are 100% right on inter-club communications.... WE NOW HAVE THIS and have always really had it THRU THE DIRECTORY , this is its main purpose.**

I want to personally thank you and the society for all your help, services your members have provided to us through the directory...we can't personally single out people because others that should be listed might be overlooked, I hope your society grows by leaps and bounds, and you will continue to keep us posted as in the past.

Enthusiastically yours,

Brent Dingman

# EDITORIAL COMMENT

For several years now I have dreamed of finding an Atwater Kent Breadboard. I have an interest in the AK history. But the re-occurring dream finds me in the backroom of an old hardware or junk store, I'm not really sure which, when all of a sudden a dark and dusty board with tubes sticking up from it catches my eye high up on a shelf. Well, the dream always ends with me waking up to see a blurry bedroom wall rather than the confines of the junk store.

This month the dream came true but Cinderfella's bubble burst in the process. The model 10C is a beautiful set but it didn't come at junk store prices. It came from haunting antique stores, estate sales, garage sales, and flea markets. And then I had to give a week's wages.

This will be my last month as editor of the Call Letter. My personal situation requires me to spend more time on other things and not work quite as hard at the hobby. I have enjoyed the past year of editing the Call Letter more than I can possibly say. It is a lot of hard work but the reward of seeing the finished product is very satisfying. I thank all the members who have contributed material for publishing. Special thanks to Tom and Dorothy James, Mark Moore, and Ron Hayhurst. Finally, Cathi and Mary gave me a great deal of support when I needed it most;

Hugh Ranken volunteered at the last meeting to help with the Call Letter. But, Hugh will need your support especially with errands. Hugh and Virginia did a fine job on articles for the Our People and Power Supply sections this month. I have confidence that the Call Letter will continue to improve and find new areas of interest to report on.

*Bob Hay*

# SWAP SHOP

FOR SALE      Horn for a Rolla speaker  
no base.  
Art Redman                      503-774-9913

FOR SALE      Halicrafter SX-62, multi-band  
radio and Webster 80-1 wire  
recorder. Working replicas.  
Make offer.  
Dennis Strellman  
Box 38  
Ashland, Or.                      503-482-2519  
97520

WANTED        Instruction book and/or  
schematic for Zenith 3R.  
Jim Mason                          503-644-2343

WANTED        Old tubes - crystal sets;  
trade old AC or battery set  
for same.  
Don Iverson                        503-286-1144

WANTED        Information about Northwestern  
Radio Mfg. Co. Model SR-25 rec.  
Charles R. Kibler  
Rt. 2, Box 694  
Aurora, Or.                        503-678-5066  
97002

WANTED        Manuals or diagrams for  
Supreme Radio Analyzer #339-D  
Triplett Valve Checker #1210  
Kingsley Ford  
48 Newcastle St.  
Rosewater, 5013      South Australia

## SWAP SHOP Continued

- WANTED            National SW-3 and matching coil set.  
  
Pilot Super Wasp (will trade for same)  
  
Two Ultra-Dyne vernier dials  
  
Five Amperite type A dropping resistors  
for 01-A tubes.
- TRADE            Principals Underlying Radio Communica-  
tions, 2nd edition, May 1921 (book)  
FOR pre-1930's radio construction book  
Bob Campbell, tel. 503-648-7331  
  
Also need schematics, pictures of  
Ultra-Dyne model L-2 receiver.

### THE PHONEY BALONEY PAGE

By: Frank Flaisted Jr. \*

Items not necessarily related to radio.

With this page appears my first feeble efforts. It is sincerely hoped that this page will become a permanent addition to our newsletter. Some of you may consider this author's writing to be phoney. Some of you may consider it to be baloney. Alas, there are those who will consider it to be phoney baloney. However, I hope that most of you find it a wee bit entertaining, if not down right humorous.

For Instance

A real choice way to start your day is to have a fight with your breakfast. Found out this morning just what's wrong with peaches & cream. You guys don't know what frustration is until you've tried, hopelessly, AND with suitable comments, to chase that last elusive, invisible piece of cut peach around a bowl full of thick cream. But wait-- there is a solution! One can always grab a big straw and have at the cream first. Kinda seems that might be defeating the original purpose.

A M E N !

THE HALLICRAFTORIUM

owners: Frank & Karen Plaisted  
members of the Northwest Vintage Radio Society

OUR CLUB'S MOST IMPRESSIVE COLLECTION  
OF HALLICRAFTERS SUPER-RADIOS

SX-28	1941	SX-42	1946
SX-38	1946	SX-62	1948
S-41	1946	SX-71	1950
S-47	1947	SX-88	1954
S-40B-	1949	SX-100	1956
S-77	1950	SX-105	1957
S-120	1960	SX-110	1959

AVAILABLE FOR EXHIBITION

Phone: 503-647-2891  
if no answer  
503-647-2339