

Call Letter

of the Northwest Vintage Radio Society, Portland, Oregon

Volume 21

March 1995

Number 3

In This Issue:

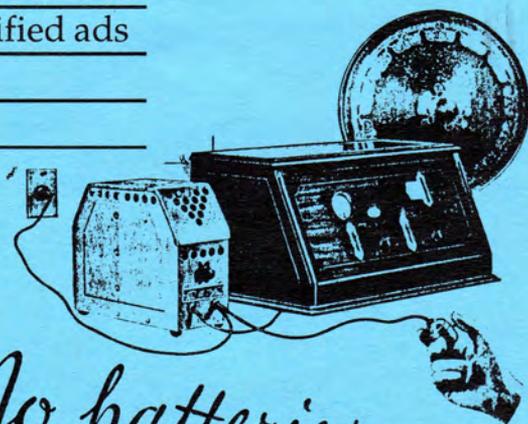
Meet the New President

Three Technical Articles

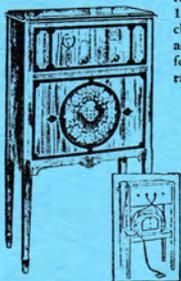
2 pages unclassified ads

Entertainment

& News!



No batteries



Radio's most revolutionary development! Run this radio direct from house current outlet. Ordinary 110 volt 60 cycle domestic electricity transformed mechanically into smooth, quiet radio A, B and C power as you use it. Radio power supply annoyances ended for all time. A snap of the switch is the only demand radio will make upon you from NOW ON.

- No more batteries to fuss with.
- No more trickle chargers to watch.
- No more keeping something filled with water.
- No batteries to renew or recharge.
- No upsetting the home to have the radio serviced.

See these wonderful sets at any Crosley dealers, or write Dept. 34 for descriptive literature.

The Crosley Radio Corporation
Powel Crosley, Jr. Cincinnati
Pres. Ohio

Radio Energy Unit

Crosley Radio Energy Unit weighs only 13 lbs., is only half the size of an ordinary "A" storage battery-operates without interesting hum and with the certainty of an electric motor.

\$50

6 tube AC Receivers

for use with Crosley Radio Energy Unit

Crosley radios designed for use with this marvelous power supply are the AC-7, a 6-tube table model at \$70, and the AC-7-C, a 6-tube console at \$95.

Crosley sets are licensed under Armstrong U. S. Patent Nos. 1,113,145, or under patent applications of Radio Frequency Laboratories, Inc., and other patents issued and pending.

Prices slightly higher west of the Rocky Mountains

CROSLEY

More than two decades in print!

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 members the Call Letter has continued to be a publication that both informs members of the society's business and that has supported the hobby of collecting, preserving, and restoring vintage radios.

Society meetings are held monthly (except July and August) at the Northwest Vintage Radio Museum, 7675 SW Capitol Highway (at 32nd street) in Portland Oregon. They convene at or about 10 AM for the purpose of displaying radios, conducting Society business, and information exchange. 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 SW Portland.

Society Officers:

President	Greg Bonn	(503) 642-5097
Vice President	Speed Feldschau	(503) 390-3928
Treasurer	Ed Charman	(503) 654-7387
Secretary	Ken Seymour	(503) 642-9115
Board member at large	Ed Pittaway	(503) 645-2883
Call Letter Editor	Dick Karman	(503) 281-6585
Museum Curator	Frank Rasada	(503) 246-3400

The Society's address is:

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

March 1995

Table of Contents

The February Radio Contest Results	2
The March 11th Radio Display	2
Atmospherica	3
From the President	4
A Passing Note	5
Sounds of Nostalgia	6
Meeting Minutes	7
In the Shack	8
The Beginner	10
Acquisition (singular)	11
SWAP SHOP	12
Patent Information	14
Calendar	15

The CALL LETTER

Editor, Dick Karman, (503) 281-6585

Word Processing, Binding, and Distribution,
Gordon Phillips (503) 234-3517

Is your newsletter getting
to you in one piece?
If you have difficulty with
delivery, please contact
Gordon Phillips.

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.

February Radio Contest

By Greg Bonn

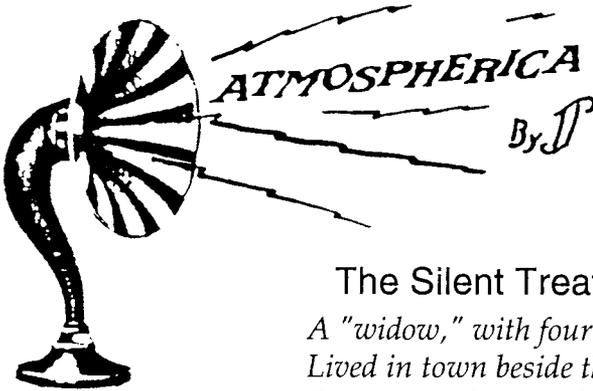
The contest held at the February 11th. meeting of the NWVRS contained twenty-four "Odd-Name" radios and was attended by approximately forty members and guest. The three winners were voted by members choice and were awarded ribbons and certificates. Sonny Clutter, Walbert took top prize. Mike Parker's Diva was voted second, and third place was given to Sonny Clutter's Nightingale. As all of the radios deserved merit, certificates were presented to all members who entered the contest.

March 11th Meeting to Feature Founder's Names

The contest to be held at the March 11th. meeting will feature "Founder Name" radios. Radios in this category would include: DeForest, Andrea, Grunow, Fada, etc... RCA, Silvertone, Airline would not qualify. If you are not sure, bring it anyway, there is always room for show-and-tell. Tables will also be available for flea-market materials as well.

The April 8th. contest will feature "Homebrew and Early-kit" radios. This category will include all home-made radios as well as manufactured kit radios prior to 1935. The set may be built by members or part of a collection.

The "Midget" radio contest scheduled for June 10th. has been cancelled. In its place the Society will host a presentation given by Mohawk Finishing Products, Inc. Please watch for more information in future issues of the Call Letter.



The Silent Treatment

*A "widow," with four daughters fair,
Lived in town beside the lake -
There were sly, vied whispers heard;
Were these rumors true or fake?*

*And then in the early thirties,
While Depression was the scare,
They left our little country town
To, -- Well God only knows where.*

*The house was sold some years later;
Furniture, trivia, and all
That's where I got this old speaker
From a shelf along the wall.*

*The horn was dented and dirty
There were cobwebs in the throat
The driver was long since ruined
With a green corrosive coat.*

*But I often stare at that relic
And roll back memory's clock
Golly, the tales that horn might tell,
If the thing would only talk !*

History: Twenty years ago when our society was new, everyone remembered the scratchy reception of the 30's and 40's. It was blamed on atmospheric conditions, defined as the cause of breaks in serious reception. Atmospheric conditions soon were referred to as "atmospherics." Tom James, a founding member, thought that our newsletter should have some breaks in serious reception and started to write poetry, titled first **Atmospherics**, and later as **Atmospherica**. Tom and his wife, Dorothy, are gone, but the *Call Letter* continues to publish Tom's works as a *break in serious reception*.

From the President,

By Greg Bonn

Because I have not been a member of this Society for very long, having only joined a year ago, it was thought wise that I might write a few words of introduction, as it were, to those members that may want to know a little bit about me. My interest in radio and electronics was fostered if not inherited from my grandfather, Gordon Parker, (no relation to Mike) while a pre-teen, in his radio and television repair shop in north Portland.

My "job" was to dismantle or junk sets left by customers that were either too expensive to repair or not repairable at all. My first radio was a small ac/dc set with a broken plastic case that I had re-capped to eliminate the ac buzz. What a thrill it was to bring home and show my parents the first radio I had fixed by myself. Other jobs around the shop included the usual sweeping and cleaning around the workbenches, testing the thousand or so used tubes then boxing and labeling them to put on the shelf. Service calls found me lugging the giant Sylvania tube caddy and holding the mirror in front of the TV while "Gramps" made his adjustments.

If only I could go back and salvage some of the radios that I had seen, or worse, scrapped.

Radios were replaced by Trains and girls in my teens, and by Trolleys by the time I was married. My Involvement with the Trolleys found me sitting on the Board of Directors as well as other official positions in the Oregon Electric Railway Historical Society for the past sixteen years, and my interest in other old "stuff" put me on the Board of Western Antique Powerland in Brooks, Oregon. My interest in radios was re-kindled by Mike Parker, also a member of the OERHS, who had stopped in at Powerland to show me some radio junk he had picked up at one of Speed's swap meets. Thoroughly convinced that I should see more of this, Mike chauffeured me back to Speed's and "set the hook", by showing me an Atwater Kent, black and green, model 45 that I felt I had to have. Since then, both my interest and my collection have grown. Two

years later, Mike introduced me to the NWVRS. I immediately joined the ranks (thanks Mike) which brings me back to the beginning of this article. Since joining I have had the pleasure to meet many of the people who knew my grandfather and his little shop, to talk with members about repair and restoration tips and techniques, and to visit and admire collections beyond my comprehension.

I hope this will answer some of the questions about how my involvement with the NWVRS began, and maybe explain my "mental case" attitude about radios. Thank You.

A Passing Note

By Editor Dick Karman

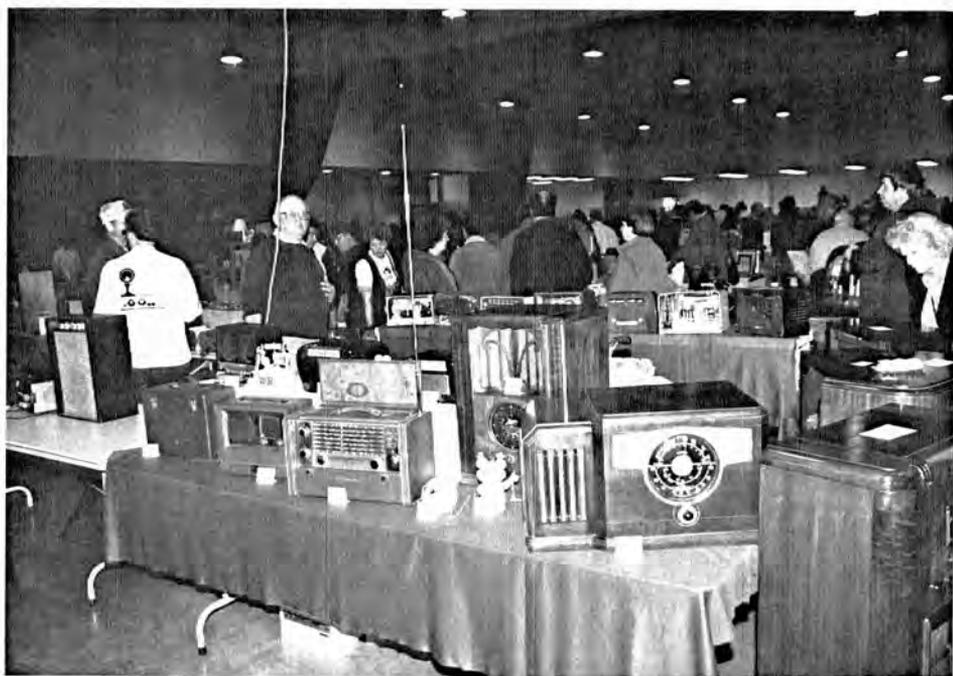
In the middle of February a sweet, loving and very patient lady passed away. Evelyn Tomkins was the wife of our former member and friend, Joey Tomkins. To know Joey, you had to know that Evelyn was sweet, patient and loving. Joe made his living as a news photographer at our state capitol, but his heart and soul was in radio. His was one of the largest collections I saw in the 70's. Much like our friend, Jim Mason, Joey's home was a museum. Joe and Evelyn were stalwart supporters of the Northwest Vintage Radio Society. Evelyn kept up with our society since Joey passed away several years ago, and we have continued to send her the Call Letter every month. Now, as we remove another name from the mailing list, we recognize the void which is left.

Storm Cuts Short the Sounds of Nostalgia

by Gordon Phillips

On Sunday, February 12th The NW Vintage Radio Society participated in the Sounds of Nostalgia Show at the Salem Fair Grounds. The day was clear and quite nippy in the morning when they loaded their display radios and wares to go to the exhibition. Everything went well until around 1 o'clock when it began to snow in Salem. The weather dampened the spirits of those from Portland around 2 PM when they began to pack up and head home. By early afternoon, the Portland area already had several inches of snow. It took our members more than two hours to make it through the storm.

More photos by Ray Nelson on inside back cover.



Meeting Minutes

By Ken Seymour

The February 11th, 1995 meeting of the NW Vintage Radio Society was called to order by the club President, Greg Bonn at 10:05 AM, with 37 people in attendance. The minutes of the January meeting were accepted as published in the Call Letter. Two guests were welcomed: Burke Maxey, of Burnsville, MN and Robert Carlson, new to the Portland area.

Good Wishes: None to Report

New Members

We have two new members who have recently joined our club. Earl Hoppman and Robert Carlson. Welcome to NWVRS!

Old Business

Gordon Phillips passed out some name tags that were printed for members. Dan Howard reported that he had a display of European radios to show at the Sounds of Nostalgia show in Salem. The dates for the spring and fall swap meets were finalized as Dick Dielschneider reported them to be May 13th and November 11 respectively. Be sure to contact Dick to reserve tables. So far, he has eleven reserved for the May show.

New Business

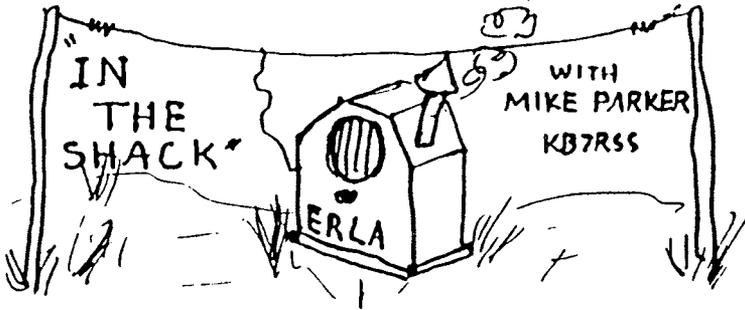
Jerry Talbot will get a copy of a list of the items that Bud Larson advertised he had. So, contact Jerry at 649-6717.

Finally, time was spend deciding themes for future meetings. The theme for the March show is to be "founder's" name radios. These include radios with names like: Atwater Kent, Fada, DeAndrea, etc. The theme for April is to be "homemade and kit" radios. June, "midget" radios.

The meeting was adjourned in, what the Secretary believes, was record time: 10:30 AM. After the meeting, the members in attendance got an opportunity to socialize and vote for the top three "rare" brand name radios, which was the theme for the February meeting.

Next Month

The next meeting will be held on March 11th at 10:00 AM.



In my last article in the CALL LETTER, I described a MAGNUS 3-dial battery set that I purchased mail order and that had a couple of typical 1920's radio problems.

One of these problems was an open winding on one of the audio transformers. It is a fact that in the construction of these old transformers, certain materials were used without thought of the consequences in later years. For instance, the insulating paper material used between the windings had a sulphuric content which after 70 years could corrode the fine winding wires so they'd break internally.

To make a set with bad audio transformers work:

1 Replace it with a good original unit. You would have to be pretty lucky to find an exact replacement, but it can be done, (see No. 5). However, in the case of the MAGNUS, they made their own transformers and had a name decal of the outside of the cases. Finding another would be pretty remote. Another brand of a similar vintage could be considered authentic.

2 Keep the bad transformer on the chassis and use a resistance-capacitance bridge circuit across it to make the stage work. This is typically, a 100K 1/2 watt or bigger resistor between the Bat. and Plate leads if the primary is open and a 500K from the Grid to Filament leads if the secondary is open, or both, and typically, a .01 to .05 mfd. capacitor between the Plate and Grid leads. Hide these under the chassis.

3 "Zapping" the windings. Some people have claimed to get the open winding fused together using high voltage current. I

don't doubt that it works, but have never tried it. Use one hand and *extreme caution* when working with high voltage leads!

4 Pull the windings off the transformer, find and fix the break, replace wire. They say this can be done but I would not like to try it. It requires a coil winding jig and a lot of patience. I'm told it is best to take the entire winding off and start over.

5 Use a small replacement transformer mounted inside the case of the original transformer. I did this with the MAGNUS battery set. The original transformer should be the type with a two piece housing over the windings. These are usually bolted together or in some cases they are riveted, requiring careful drilling and removing. Mark the transformer leads to avoid confusion later! You can order many original replacement audio transformer as well as a nifty, compact brand new replacement transformer from PLAY THINGS OF PAST, 9511-23 Sunrise Blvd. Cleveland, Ohio. 44133. Their catalog is \$3.50 and contains many hard to find 1920's parts and literature. This transformer is their part number 1017-001. Measuring only 1 3/8 by 1 1/8 by 1 1/8 inches they cost \$5 each. Modern materials, and a high permeability alloy core, allows for a more robust winding, better response and lower losses.

Play Things Of Past, claims these replacement transformers have been installed successfully inside the housing of the **ATWATER KENT** can shaped transformers as well as the **CROSLEY** "Sheltran" and others of it's type. I have concealed one of these units inside of the transformer case of my **RADIOLA III-A** by gutting out the defective core and winding and leaving enough of the core laminations plates to surround the new unit. The color coded 2 1/2 inch leads can be brought out to their respective terminals as with the original. On this one, I had just enough room to close the housings on it. I can not tell it is inside of it and the response is excellent. Perhaps better volume than the original. I restored the bad transformer in the MAGNUS radio in a similar way. I have also used these new transformers just mounted under the chassis. I was not fussy about the originality under the panel...it's up to you. I hope this information will help you have more fun with your old radio than a human being should be allowed!

See you next time, "IN THE SHACK" 73's Mike Parker

The Beginner PT 6

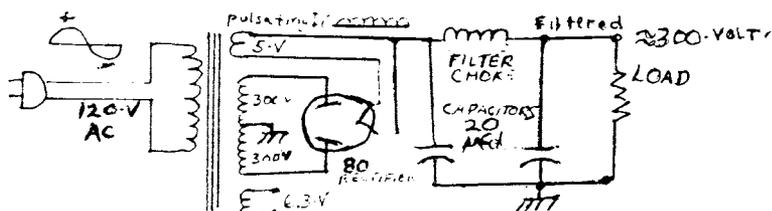
The BEGINNER has been a feature article in the Call Letter for the last six months courtesy of member **Robert L "Bud" Larson** W7LNG. Bud is a Chief Electronic Technician, U.S. Navy Retired.

Power Supplies

Generally, in a radio or other electronic device, we need a different voltage than the 120-volt, 60 Hz AC that comes from the wall socket. For vacuum tubes a filament voltage of from 1-1/2 to 120 AC or DC. (6.3-v is most common) is needed. For the plate supply, 22 up to 300 volts is normal. On the other hand, transistors and ICs normally use 5, 12-14 volts or up to 24 volts of well filtered DC. Batteries can be used but we all know the frustration of a run-down battery.

The classic power supply for tube equipment consists of the power transformer, rectifier and filter. First, the transformer steps up or down the AC to the desired voltages. The iron laminations (core) concentrate the magnetic field that is produced by current flow in the wires of the primary winding. This winding is "plugged in" to the wall socket. The current reverses 120 times a second making a magnetic field that induces a voltage into the secondary windings wound over it on the core. This voltage is (neglecting losses) directly related to the number of turns in the winding. For instance, in a small transformer, 5 turns-per-volt may be used. So, 120 times 5 = 600 turns (Primary) and the secondaries would have 25 turns for 5 volts. 31.5 turns for 6.3 volts and 3000 turns of small wire for the high voltage (600-v) winding.

This one is tapped at the center for the full-wave rectifier circuit. The wire is sized to keep it from heating too much. The filament windings use the largest wire, the primary mid-sized and the high-voltage secondary uses wire so small that it may be smaller than a hair. Some time you may want to tear apart a bad transformer and see how it is made.



In old radios the rectifier was usually a #80 tube. 5Z3, 5Y3G or GT are other common ones in tube radios. The 300 volts AC on the plates of the rectifier tube "take turns" attracting electrons from the filament. When the top plate is positive the bottom plate is negative. Current flows only to the plate that is positive. This changes AC to DC (rectification). This circuit is called full-wave center tapped.

The filter capacitor on the rectifier filament charges with each pulse and discharges a little when the voltage is lower filling in the "valleys". Current flowing thru the filter choke forms a magnetic field in the core. This field expands during an increase in current and collapses with a decrease. I like to think the choke smooths the current and the capacitors smooth the voltage. The choke resists a current change and a capacitor resists a voltage change so at the output we have almost pure DC for the load.

A cause of hum in old radios is weak or open filter capacitors. The electrolytics commonly used, tend to loose filtering ability with age. The power factor increases which acts like a resistor in series with the capacitor. Look for small holes in the rubber on the positive end of the capacitor. This indicates physical leakage and probably electrical failure. Modern capacitors can be put in the old can after digging out the insides. (messy job) Or for less authentic repair, install tubular filter capacitors under the chassis out of sight.

I suggest adding a fuse in the primary circuit. A shorted capacitor can ruin the rectifier and maybe "smoke" the transformer. (bad smell). Use a fuse of 1.25 times the current shown of the set's name plate.

AQUISITIONS

Liles Garcia Hallicrafters Skyrider 32 and Hallicrafters Skychallenger SX15

SWAP SHOP

Wanted: Transcription Records #25B5 Tube Les Lewis (503) 648-9730

Wanted: Old and interesting Crystal Radio diagrams, detectors and related parts. Galen Feight (503) 231-9708

Wanted: Powell Radio Jerry Talbot (503) 649-6717

Wanted: Farnsworth 16 E Phonograph Turntable. For Capehart deluxe phonograph Richard Tussey 3938 NE 6th Ave. Portland (503) 288-6187

For Sale: Atwater Kent parts Zenith Transoceanic parts and whole sets. Speed Feldschau (503) 390-3928

For Sale: A-K 60 "c" Chassis B/O Jerry Talbot (503) 649-6717

For Sale: 1937 RCA 813K 5 band 13 tube console w/eye. Jim Collins (206) 867-0929

For Sale: PEIRCE Wire Recorder w/mike & cassette. \$68.00. Walt Kiefner (206) 526-1452

For Sale: Over 200,000 Tubes, panels, speakers, chassis, electronic surplus and supplies. R5-D3 Surplus. Bob Lee, 6111 SE 82nd Ave. Portland, Or. (503) 774-6560

Wanted: For PSARA Museum RIDERS 18, 21-22 Ken Korhonen (206) 932-9363

Wanted: BOYS radios (2 transistor radios C. 1960- 1963), pre- 1950 TV sets and literature, Crosley 59 chassis, Sky Chief radios, Sylvania 1202 radio Ken Korhonen (206) 932-9363

Wanted: HALLICRAFTERS S-53A, SX-42, SX-43 Steve Posey (206) 361-1967

Wanted: INFORMATION German SW RX (DEBEG) 100khz - 30Mhz. McIntosh MR-55 Signal Strength Meter or set for parts. Ernie Beetz (206) 285-2711

Wanted: CRYSTAL sets commercially made. Bob Farnam (206) 863-9631

Wanted: KNOBS for Grebe HS-4 Cathedral of info. of their design. Ray Hackbrath (206) 841-3620

Wanted: RED RCA Metal Tube Gil Arroyo (206) 244-2344

Wanted: ADVICE on rewinding power transformers for Atwater Kent. Brian Miller (509) 255-6326

Wanted: RIDERS 21 and 22 Mark S. Davidson (206) 927-4838

Wanted: Riders Volume 1 Steve Metzberg (206) 941-0699

Wanted: RADIOLA AR Jerry Brannon (206) 854-4234

Wanted: (1) Military radio items espec. WW2---(2) Obsolete Comm. equip- Aircraft, Boat, Forest Service.---(3) Regenerative SW Receivers, Old or Recent.---(4) Beginners Kit Radios Old or Recent, Non-Superhet.--- (5) Manuals for any above. Will pay to pack/ship or will pick up Aug. 1995 Hugh Miller KA7LXY 3625 N 104 Ave # 35 Omaha NE 68134 (402) 422-3561

For Sale: RADIOLA 80 Console, plays well \$200.00 or \$100.00 without tubes. Jerry Brannon (206) 854-4234

For Sale: RCA RE-45 Electrola Parts Cabinet, RCA Radiola 41 Parts Cabinet, Edison 7R rcvr unit. All 3 Free. Garod 11FMP2 SW/AM/FM/PH Cons. W/Rola spkr. \$25.00. Edwin Buhite (503) 288-8719

Crosley Book condenser. Gordon Phillips (503) 234-3517.

WANTED- Collectors and those interested in collecting radio antenna insulators and lightening arresters. Join a group of enthusiasts from across the country who are forming an organization. call Dan Howard (503) 761-7799.

WANTED- Tubes 25B5 7 pin audio output. 25N6 and 6J8 both octals. Lester Lewis (503) 648-9730.

WANTED- HICKOK model 600-A tube tester (will consider substitute) John Bookout (503) 644-0235.

FOR SALE- Wilson Gay model #53 Recordio Console record player and recorder. Make offer Lee Jensen (503) 289-9048.

WANTED- Heath DX-100 TRansmitter, 811 and 813 tubes. Ken Seymour (503) 248-7439 (days)

WANTED- Meissner Tube receiver, any tube compliment like the Traffic Master Scout or #7502 or smaller. Call Bruce Russell collect (604) 299-1116.

WANTED- Hallicrafter SX-96 or SX-100. Jerry Talbot (503) 649-6717.

WANTED- Antenna insulators and lightening arresters. Auto-related radios. Dan Howard (503) 761-7799.

FOR SALE- Several plastic AC/DC radios, pocket transistors sets, Newcomb B-100 "school" radio (AC in cloth-covered cabinet), clock radios, 2-meter ham transceiver, 6-meter AM transceiver (Hallicrafter SR-46), 2 Eico tube testers, Knight signal tracer, etc, from 2 estates. Send large SASE for complete list. Bud Larson, 1325 Ridge Way, Medford, OR 97504 (503) 773-5214.

Researching Patent Information

By Dan Howard

Valuable information about the history of a radio artifact may be found by researching its patent. In a brief article in the AWA Review Vol. 6, David W. Kreuter says that copies of patents can be ordered from the Commissioner of Patents and Trademarks, Washington DC 20231. Copies are \$3.00 each.

The University of Washington in Seattle is a National Patent Repository as may be the Oregon State Library. The University of Washington has the complete text of all patents issued since 1966 and abstracts (pictures and brief descriptions) of the patents prior to 1966. The patents are stored in the Engineering Library and you can call (206) 543-0740 to verify the hours when you are interested in going. Self service copiers are available for a nominal charge.

Due to the complexity of the patent system, I recommend that you know the class and subclass numbers that you are interested in researching before you go. If you don't know these numbers, you can get them by taking along a known patent number and looking up the related class/sub class numbers that way.

Source: The Antique Wireless Association, The AWA Review Vol. 6, 1991, Holcomb NY, pg. 184.

Portions of this article previously appeared in "*Old Familiar Strains*": a newsletter for Collectors of Radio Strain Insulators and related items" Vol. 1 No.4 and Vol. 1 No 5

Calendar

Compiled by Dan Howard

March	4-5	Antique Show - Portland Expo Center
	11	NW Vintage Radio Meeting
	11	Puyallup Ham Fair - Puyallup, WA
	19	PSARA Meeting, Seattle
April	6-9	April Car Swap Meet - Expo Center
	8	NW Vintage Radio Meeting
	16	PSARA Meeting & Auction, Seattle
May	13	NW Vintage Radio Swap Meet 9AM
	14	PSARA Meeting, Seattle
	20-21	Yakima Ham Fest Middle School, Selah Wash.
June	3-4	SEAPAC Ham Convention - Seaside, OR
	10	NW Vintage Radio Meeting
	18	PSARA Meeting, Seattle
July	8	Speed's Swap Meet, Keizer, Oregon
	15-16	Antique Show - Portland Expo Center
	16	PSARA Meeting, Seattle
	22	Ham Fest Junior Hi. School North Bend, Oregon
	23	NW Vintage Radio Show, Forest Grove Concours D'Elegance
August	20	PSARA Annual Swap Meet, Seattle
September	9	NW Vintage Radio Meeting
	16-17	Portland Ham Fair, Portland Meadows 1001 NE Schmeer Rd. Portland, Oregon
	16-17	Antique Show - Tacoma Dome
October	17	PSARA Meeting, Seattle
	14	NW Vintage Radio Meeting
	15	PSARA Meeting, Seattle
	21	Ham Swap Meet, Polk County Fair Grounds. Rickreall, Or.
	21-22	NW Vintage Radio Display, Expo Center NW Car Collector's show
	28-29	Antique Show - Expo Center
November	11	NWVRS Annual Fall Swap Meet
	19	PSARA Meeting, Seattle
December		NW Vintage Radio Christmas Party
	10	PSARA Meeting, Seattle
	16-17	Antique Show - Oregon Convention Center

