

# The Call Letter

of the Northwest Vintage Radio Society

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Vol 22

October 1996

No.10

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The regular October meeting will be held on the  
second Saturday of October.

Come and volunteer to help !

**Radio Show & Sale**  
**Multnomah Arts Center**  
**Portland, Oregon**  
**Saturday**

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In print since 1974

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## Swap Meet & Show

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The first weekend in October is the NW Vintage Radio Show and Sale at the Multnomah Arts Center, on Capitol Hiway, across from the museum, in SW Portland. Contact Myron White at 629-5513 for table rentals and to help with the set up and tear down.

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## October meeting

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The society will hold a regular business meeting on the second Saturday of October at the museum (see inside front cover). This is a crucial meeting for the future of your participation in the society. Come with some positive input about a new meeting place, and new officers.

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## Radio History

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*Radio Industries* magazine November, 1929

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A. Atwater Kent, president of the Atwater Kent Manufacturing Company, recently issued the following statement - "Varied rumors would seem afloat that I am contemplating a merger with one or another of several radio manufacturing concerns. Once and for all I wish to state that there is absolutely no basis whatsoever for these reports. I have conducted my own business for more than twenty-five years and I contemplate no change in my policy. I have a fine organization. I enjoy managing my factory and nothing has occurred that would lead me even to consider joining forces with any other company."

Only a few weeks before this statement was issued the local press ran a story concerning the possible merger of Atwater Kent, Grisby Grunow, and Crosley.

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# Meeting Minutes

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By Ken Seymour, KA7OSM

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The September 8th, 1996 meeting of the NW Vintage Radio Society was called to order by Vice President Speed Feldschau at 10:01 AM with 27 members in attendance. Speed welcomed everyone back from the summer hiatus. Ed Charman followed promptly by reviewing the Treasures report which was approved by the members. He reported that the Club added five new members over the summer.

## Old Business

Speed reported that the Kaiser swap meet held on July 27 was a huge success despite the extremely hot temperatures that day. In addition to the large turnout, the Club benefited with a lot of publicity. Both the Kaiser Times and the Salem Statesman newspapers covered the event and published good articles covering one half to a full page of coverage. Speed then took an informal survey to see if members were interested in continuing the swap next summer. Members expressed their interest and it was decided to continue the summer swap in 1997.

## New Business

Speed informed the members that the Society was officially notified that we must vacate our present meeting place and find a new location by the end of the year. A brief discussion then took place going over ideas for a new meeting location.

Dick Karman mentioned that he is looking for someone who has desk top publishing experience or anyone who has an interest in taking over the Editorship and publishing the Call Letter. Dick's family obligations will require much more of his personal attention and time. So, feel free to contact any Club officer if you have an in-

terest in this very important job. Dick's last Call Letter may be published at years end.

Finally, Lawrence Tobkin (filling in for Myron White) wanted to let everyone know about next months radio show at the Multnomah Expo center on October 5. Be sure to give Lawrence (661-2989) or Myron (629-5513) a call to reserve tables. The rates are \$15 for the first table and \$10 for each additional up to a maximum of 3.

The next meeting will occur the Saturday following the show on October 12. So, be sure to make plans on attending. The meeting was adjourned at 10:55 AM.

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## Editorial

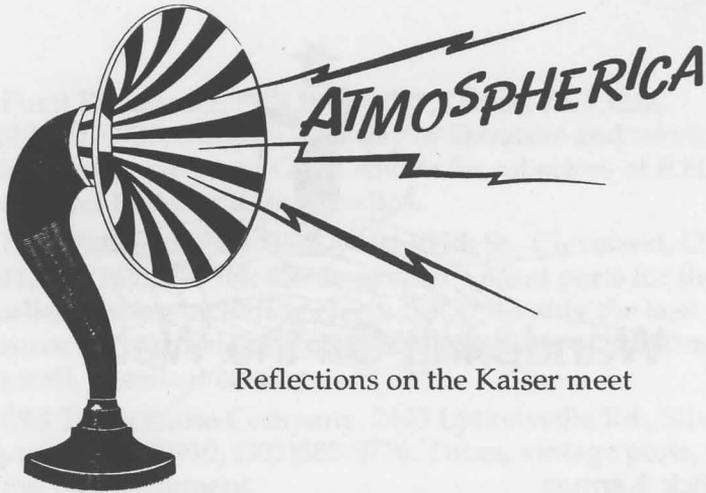
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Last June the officers of the Northwest Vintage Radio Society met and decided that we had outgrown our current meeting place evidenced by not enough room for 30 to 45 folks to sit down and discuss old radios, and conduct the society's business. It was time to obtain more space in our current location or change locations.

The building owners got wind and decided was made public at the last meeting (see meeting minutes). Thus as a society we will be looking for a meeting location, and thus we will be looking at a monthly rent which will have to work into our budget.

Speaking of rent, we need to thank the people who paid the rent for the last 4 years. Our appreciation should go out to Dick Dielschnieder, Speed Felshau, Jon Otterstat, Sonny Clutter, and the dozens of others who helped duct, wire, sheet rock, paint, not to mention moved radio upon radio up and down, in and out. Through the efforts of these members we have used someone elses property and left it better than we found it. Remember the efforts of our members, and let no one ever say that we haven't paid our dues.

Thank you gentlemen!



Reflections on the Kaiser meet

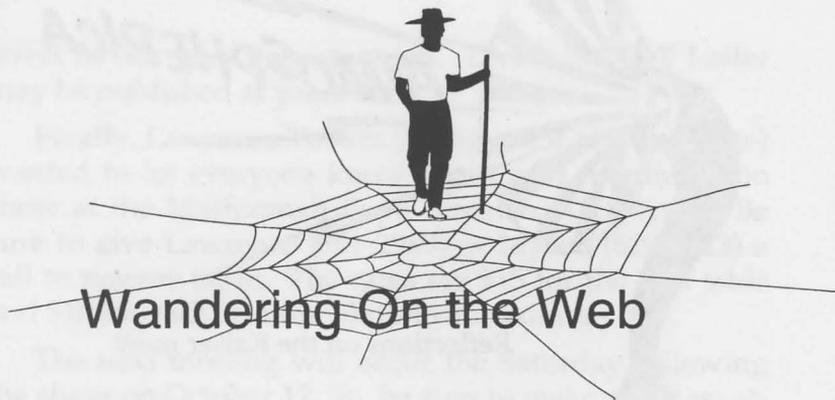
*We headed down to Kaiser  
To Speed's back lot down there,  
To hold the summer swap meet  
And display our newest ware.*

*Do you suppose anyone will come,  
The members fret and stew.  
Or will they stay away in droves  
As people will sometimes do?*

*The climate was hot and sweaty  
I turned to a vintage friend ——  
Do you think we really ought  
to stick it out to the bitter end?*

*"How we doing, fellow?"  
Speed said to somebody's brother  
"We're really coining the loot  
Selling to one another !"*

*By Golly, most made expenses  
And we all found good company  
So we'll look ahead and plan again to meet  
next summer under the tree.*



## Wandering On the Web

By Dick Karman

This month we are looking at the Radio Collection known as Radioland. The collection is cared for by "Gerry and Carol." The nice thing is that it's here in the Northwest.

**<http://www.adsnet.net/radio/Radios.htm>**

Their snail.mail address is 1402 Cora #1, Ellensburg, WA 98926.

I also found a great dissertation on Spark apparatus at

**<http://www.vistech.net/users/w1fji/spark.html>**

(see story on page 10.)

And if you visit **<http://www.crpht.lu/FAQ/antiques/radio+phono/faq/part5/part5.html>** you'll find reference addresses and information

The following suppliers carry a variety of merchandise for collectors and restorers of vintage radio/phono/TV/jukeboxes.

1. Antique Electronic Supply, 6221 S. Maple Ave., Tempe, AZ 85283, (602)820-5411: Great source for tubes, components, restoration supplies, books, etc. If you're new to the hobby, start with the AES catalog—it's indispensable!

2. Puett Electronics, P.O. Box 28572, Dallas, TX 75228, (214)321-0927: Incredible supply of literature and service data, also some parts. Good source for collectors of E.H. Scott and McMurdo silver radios.
3. Play Things of Past, 3552 West 105th St., Cleveland, OH 44111, (216)582-3094: Plenty of hard-to-find parts for the earliest radios, including rare tubes. (Probably the best source for original parts on 1920's sets.) Lots of literature as well. Excellent catalog.
4. Old Tyme Radio Company, 2445 Lyttonsville Rd., Silver Spring, MD 20910, (301)585-8776. Tubes, vintage parts, radios, test equipment.
5. Great Northern, P.O. Box 17338, Minneapolis, MN 55417, (61) 727- 2489: Lots of stuff for collectors of Zenith radios—parts, literature, T- shirts, service data.
6. Vintage TV and Radio Supply, 3498 W. 105th St., Cleveland, OH 44111, (216)671-6712: Nice selection of books, tubes, knobs, components, refinishing supplies, etc. Much better knob selection than AES (#1 above). Good catalog.
7. Wade's World of Knobs (Wade and Joe-Ann Terrell), 7109 E. Arbor Ave., Mesa, AZ 85208, (602)830-7849: Reproduction plastic knobs and dial lenses, etc.
8. Antique Radio Labs, R1, Box 41, Cutler, IN 46920, (317)268-2214: Limited selection of various parts and literature.
9. Don Diers, 4276 North 50th St., Milwaukee, WI 53216-1313: Nice selection of tubes and vintage parts. Tons of caps! Fun to read catalog!
10. Triode Electronics, Box 578751, Chicago, IL 60657, (312)871-7459: Jukebox needles, cartridges, tubes, other parts.
11. A.G. Tannenbaum, P.O. Box 110, East Rockaway, NY 11518, (516)887- 0057: Vintage parts and literature, test equipment. NOTE: Tannenbaum has moved. New address per their telephone recording is PO Box 386, Ambler, Pa. 19002; telno 215-540-8055.

<http://www.crph.tu/FAQ/antiques/radio+phono/faq/part5/part5.html>

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# Technical History

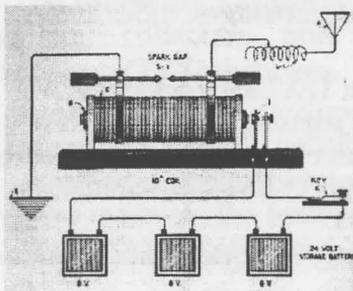
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by W1FJI

## SPARK - GAP

The first thing I want to stress is that "SAFETY WAS NOT A MAJOR CONCERN" during the days of Spark, some of the methods used were VERY DANGEROUS. Now that I have said that, let me move on. There was a certain amount of excitement associated with Spark Gap. Without getting into the theory or design of these Spark Gap Wireless transmitters, let me attempt to give you an over-view of their operation.

In their simplest form, some of the early models' of the wireless transmitters were designed by Guglielmo Marconi a young Italian inventor. By the age of 21 he had studied many of the experiments of Maxwell and Hertz, and was convinced that it was possible to transmit signals by electromagnetic waves. After having performed many of the experiments himself, Marconi had proven that it was indeed possible to communicate by electromagnetic waves. Some of his early wireless transmitters were powered by either low voltage storage batteries, or a D.C. dynamotor which would produce 5 to 30 volts D.C. The low voltage was fed to one side of a telegraph key. As the telegraph key was depressed, and the circuit closed, current would flow into the primary side of an induction coil. This would induce high voltage currents to flow in the secondary windings of the coil.



These high currents would charge the antenna, then discharge across the spark gap electrodes to ground. This action would produce magnetic waves for each discharge

across the Spark Gap electrodes. The antenna was connected to the induction coil by means of another coil with a moveable tap. A broad band wave would then be radiated from the antenna.

Another of the Marconi designs employed a low voltage A.C. source. This low voltage A.C. was fed to the primary side of a transformer. When the telegraph key was depressed, this induced high voltage currents to flow in the secondary windings of the transformer. The high voltage alternating currents at the secondary of the transformer could range from 2000 volts to 25,000 volts A.C. These secondary high voltage currents were then fed into a tuned circuit, which is inductively coupled to the antenna. The alternating currents in the secondary would alternate back and forth within closed oscillator circuit, which was made up of a coil, high voltage condenser and spark gap electrodes. The high voltage currents would first charge and then discharge at a frequency twice that of the source voltage across the gap electrodes. Next the currents were induced into the antenna through a transformer and then radiated.

Other designs would employ a Rotary Spark Gap, also known as a multiple spark system, which was motor driven. On the shaft side of the rotary would be a rotating arm with two electrode 180 degrees apart which would rotate like a wheel. Around the outside of the two rotating electrodes were several fixed electrodes. As the rotary spun, and the telegraph key was depressed, the high voltage currents would discharge across the gaps of the rotary. With each make and break of the heavy copper contacts on the telegraph key, sparks would jump the gap of the electrodes. The rest of the circuit would be somewhat the same as I have discussed above. As you can imagine, the contacts of the telegraph key needed to be able to handle 16 to 18 amps. Not only did the telegraph key have to employ heavy contacts, but the electrode gap contacts themselves would heat up due to the discharging of the stored energy. The rotary

that I have, uses heavy copper blocks on both the rotary wheel, and for the two stationary contacts. I can recall a visit to a Steam and Wireless Museum somewhere in South Rhode Island where they had a working Spark Gap Transmitter. I can remember the sounds that were made not only from the rotary but likewise the sparks that produced when the telegraph key was depressed, it was quite a sight.

The sounds of the rotary turning and the sparks jumping the air gaps could be heard all over. In the early days of Amateur Radio these were common sounds. The energy generated by this method was very powerful and obviously dangerous. These were the days when hams, were experimenting with various ways of generating a wave, various antenna configurations, and receiving apparatus possible. The actual signal produced by this method was very crude sounding as these waves were produced by alternating currents.

Large coils had to be hand wound for use as transformers, oscillator and antenna coils. Large knife switches were used to switch not only the power, but were also used to switch the antenna from the spark gap to the receiving apparatus, as well as antenna to ground. The greatest distance they were able to transmit was about 100 miles. Some might remember pancake transmitter inductances and loose couplers that made up important parts in the then modern station. A typical station in 1916 might include a 1/2 kw transformer that supplied 14,000 volts, an eight section condenser and a Hy-Tone rotary gap. The receiver, or Audion was used for reception with Crystallo and Perikon detectors which served for most of the work. Completing the Ham station might be a six wire antenna 70 ft high. Although I have been calling this device an antenna, it was also known as an aerial.

Radio communications had come a long way from the early on experiments of Hertz, Maxwell, Marconi

and others. Although the Spark days were quite unique, Amateur Radio was moving forward. Like everything else, Spark was destined to give way to the next phase of Amateur Radio. For some, the move to the next phase would be an easy one. While for others the change from Spark would not come so easy. The American Radio Relay League was founded by Hiram Percy Maxim and Clarence D. Tuska around June or July 1914. Amateur Radio was growing and it was now time for the hobby to move out and make its' mark in the world. Somewhere around 1920 through 1922 Spark was on its' out, and Amateur Radio was beginning a new era.

There are many articles on Maxwell, Hertz, Marconi and others who have contributed. I would suggest that you visit your local library and read up on some of the very interesting experiments they had performed. Even today Amateur Radio is undergoing many changes. I have seen the change from CW and AM to SSB and DSB, from SSB, DIGITAL, DSP, CODE / NO CODE, AMATEUR SATELLITES and now to Ham Radio on the INTERNET. Amateur Radio has always been associated with each of the changes in communications. Where do we go from here, your guess is as good as mine. Wherever it is, you can bet that Amateur Radio (HAMS) will be there

<http://www.vistech.net/users/w1fji/spark.html>

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## Good & Welfare

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Vice President Speed Feldshau is recuperating at home after triple bypass surgery last week. The society has sent a well-wish - but he'd enjoy hearing from anyone who would call.

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# Swap Shop

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## WANTED

WANTED: Vintage amateur radio receivers, AM transmitters, and other related amateur gear (circa: 1936 to 1960). ARRL Handbooks from 1935 to 1954. Ken Seymour (KA7OSM); 9115 S.W. 176th Avenue, Beaverton, OR 97007; 503-306-7439 days/eve. Email: ken.seymour@attws.com

WANTED: a spool of wire for a silvertone wire recorder. Pat Kagi (360) 694-6149.

## FOR SALE

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.

FOR SALE circa 1914 Spark Transmitter, double gap, with 110 volt power supply, external helices added to sharpen decrement -\$1,000 - can deliver to Portland. **Bud Larson**, 1325 Ridge Way, Medford, Oregon 97504; (503) 773-5214

FOR SALE OR TRADE: Movie Dial Console, 1936 Airline Model #62-413. 13 tube, 2 speakers, Tuning eye, and Chrome Chassis. Mint Condition. Dick Bosch, LaCenter, WA - (360) 687-4414.

FOR SALE: National HRO 5TA1, metal tubes, 5 coil sets (4 general coverage and 10 meter band spread), home brew power supply and cabinet for speaker and coils. Clean and in good working order. \$350. **David Rutland**, P.O. box 1084, Philomath, OR 97370, (503) 929-4498 e-mail **WREN@PEAK.ORG**.

WW II military surplus: BC-654 Transmitter/Receiver unit; GN 45-B hand crank generators (has two), A BC-58 antenna kit. (Above all one lot). Also for sale a PE-103-A Power Unit... Asking \$400 for everything. Rudy Zvarick (503) 255-2227.

## TRADES

FOR TRADE: I'm looking to complete my set of Riders. I have an extra sets of manuals 7 - 10 and 12 - 14. I need manuals 15 and 17 - 23. Interested in trading or buying.

Dave Brown Email: [djbrow@pacifier.com](mailto:djbrow@pacifier.com) or Phone: 538-5842