



So many meets, so few days!

OSCILLATOR

DELAWARE VALLEY HISTORIC RADIO

The Official Newsletter of the DVHRC
1999

Vol. 7. No. 5, May

This Month's Meeting

The May meeting of the DVHRC will be held at 7:30 Tuesday, May 11 at the Telford Community Center. The program will be a presentation by Al Klase entitled *Remedial Radio Technology for the Collector and Historian – Part 1*.

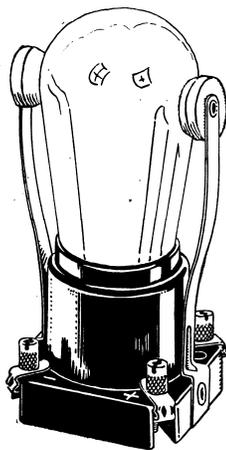
The auction will feature two of the PhanaVision lamp bars (double size) from Veteran's Stadium, that Dave Abramson showed last month. The proceeds will be split equally between the club and the Phillies Wives Charities (ALS research). The lamp bars will be filled with lamps, but not electrified.

New Auction Format

Starting in June we will conduct quarterly "High-Line" auctions. Sellers are encouraged to bring **FIRST-QUALITY** items for sale. Likewise, buyers should **BRING MONEY**. The board feels that this can greatly enhance the auction experience for all concerned. There will be more information at the meeting and in the next Oscillator.

THANK YOU!

The club extends a special thank you to Bill Jones for donating two German radios to the club. A Grundig Granada and a Telefunken. These were sold at the April Meeting to benefit the club.



Bremer-Tully Silent Socket
Ca. 1926

April Meeting Notes

Dave Snellman reporting

With forty people in attendance the April meeting of the DVHRC got underway. To start, we'd like to welcome two new members – Ray Kaplan and Jason Neill, both of Philadelphia. We also had some brisk sales of books as was reported in the last issue.

COMING EVENTS

May 11	DVHRC Meeting, Telford
May 14	NJARC Meeting, Freehold, NJ
May 15	Radio Meet, Danboro, Pa.
May 15	Radio Meet, Kutztown, Pa.
May 22	Hamfest, Winfield, Pa.
June 5	Hamfest, Dunellen, NJ
June 8	DVHRC Meeting, Telford
June 11	NJARC Meeting, Freehold, NJ
July 3	Hamfest, Wilkes Barre, Pa
July 4	Hamfest, Harrisburg, Pa.

THE OSCILLATOR

*Newsletter of the
Delaware Valley Historic Radio Club
P.O. Box 847
Havertown, Pa. 19083*

The *Oscillator* is published monthly by members of the non-profit DVHRC. Its purpose is to provide a forum to educate, inform, entertain, and communicate with collectors and preservers of vintage radio technology.

We welcome and solicit information relating to radio history or collecting. Submissions should be carefully researched, typed and accompanied with clear photographs or diagrams. Material on-disc (3-1/2" DOS/Win95) is particularly welcome.

Unless copyrighted by the author, material in this publication is available for attributed reproduction for nonprofit purposes. (For convenience, the editor can supply copy on-disc.)

Personal views, opinions and technical advice offered in this newsletter do not necessarily reflect those of the members, officers or Board of Directors of the DVHRC, nor is the organization responsible for any buying or selling transaction incurred.

To join: DVHRC dues are \$15 per year. The membership year runs January-through-December. Please mail to the club PO box above.

Meetings are held the second Tuesday of the month at 7:30 PM

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COPY DEADLINE: The 20th of each month.

Bill Overbeck issued a call for presentations for future meetings. Every meeting we have a technical presentation. These are usually short presentations that are on topics that interest the radio collecting community. If you have something you'd like to share with the group, see Ted Sowirka, who heads up our technical committee. You can also get in touch with Bill Overbeck, our President.

Lewie Newhard reported on an upcoming radio meet in Kutztown, PA. It is to be held on May 15th at Renninger Antique Market, just outside of Kutztown, PA. Although it conflicts with a meet in Central Pennsylvania on the same day, it is expected to draw quite a crowd. Look for advertisements in the "Oscillator" and in "Antique Radio Classified."

We were treated to two – yes two – technical presentations this evening. The first presenter was Bill Overbeck. Bill brought along a number of newspaper articles on Atwater Kent, including some period advertisements, which he showed as an introduction to the main part of his presentaion. Bill then showed a short video, made from an original film, on the dedication of the Atwater Kent facility in Philadelphia in 1929. AK fans enjoyed seeing the cornerstone being sealed and then put in place in the new facility. This is the same cornerstone that was opened at the razing of the building a year or so ago.

The second technical presentation was the ever-popular "show and tell." A number of members participated in this part of the meeting. Bill Overbeck shared some tips for collectors. One was cleaning catalin with nail polish remover.

Dave Abramson brought along a piece of the old "Fanavision" from Vet's Stadium. The system was recently replaced with a Sony system, obtained from the Seattle Seahawks. This new system replaces the one that had been in place for about 16 years. The old system was made up of 68,400 individual red, green, and blue lamps. Each lamp required 100 volt DC to light it up. Dave explained some of the electronics necessary to make this system work. Dave also explained how the new Sony system worked. It consists of a number of "cells" made up of red, green, and blue miniature CRT's. The size of the new screen is 40' x 30'. (Neat stuff, Dave.)

Ray Kaplan, one of our newest members, has been doing some volunteer work at the Franklin Institute. As part of the work he's been doing there, he has cataloged a lot of information for their collection on Edwin Howard Armstrong. He brought with him copies of photos and other articles on Armstrong that are in the Institute's collection. Thought not on display to the public, you can get information on how to access these items by contacting the museum. You can also see Ray at one of our meetings. Paul Weidenshilling added that there is some Armstrong equipment on display at the Fort Monmouth museum. Bryan Irwin, our web master, also pointed out that there is a link to a website about Armstrong on the club's webpage.

Rounding out the "show and tell" were two interesting items. One, rather new, was a MPEGIII player

that is capable of playing music one can download from sites on the Internet. The other was a "2 meter cactus" brought in by Al Klase. This item was part of an antenna for a device used during the Vietnam era. It was dropped from a plane and upon landing sunk into the ground. The antenna remained above ground, so to camouflage it, it was disguised as some sort of plant.

What would a DVHRC meeting be without an auction? Well, in spite of a rather noisy crowd, we had our auction. Much of the usual box lots of tubes, parts and the like

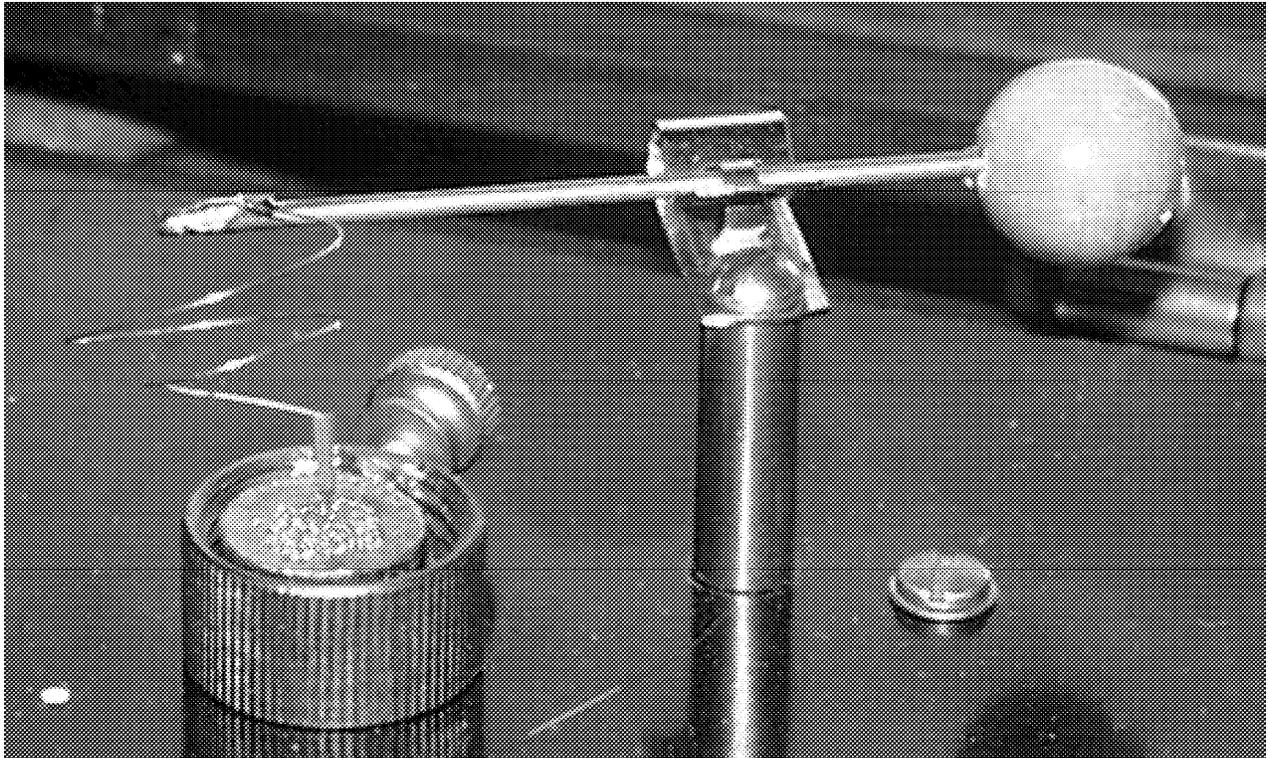
as well as Transistor and HI-FI photofacts were carried home by those "lucky" enough to bid the right amount. Some nice table radios from Delco, RCA, and Philco also went in the auction. A Sony reel-to-reel recorder, a Fisher 500C, and a Motorola tube-type portable (sans tubes) rounded out the auction. Nice Zenith and Silvertone table radios as well as a "mint" Radiolo 28 nameplate didn't make the minimum bid required, so they went back home with their original owners.

Next meeting, May 11th, same time, same place. Till then, happy collecting

A Homebrew Detector Stand

By: Al Klase

Crystal detector stands have become expensive and hard to find. Here's a highly satisfactory design inspired by Elmer Osterhoudt of Modern Radio Laboratories that you can make without needing a machine shop:



The heart of this stand is a common Fanestock clip. These are the old fashioned spring-type wire terminals. If you can't dig one out of the junk box, Antique Electronic Supply will sell you a life-time supply. The rod is 1/16" brass from the hobby shop. The 1/2" wooden bead is a standard craft store item. The catswisker is a piece of 0.008" steel guitar string soldered to the rod. The end is clipped at an angle to provide a sharp point. I glue a small piece of brightly colored wire insulation near the end of my cw's to improve visibility.

The Fanestock clip is mounted with a 3/4" through spacer (unthreaded) and a long #6 machine screw. Below the panel there is a solder lug, a compression spring, and a nut. I use elastic stop nuts to maintain moderate spring tension without coming loose. Two ordinary nuts jammed against each other will work as well.

This arrangement gives the catswisker three degrees of movement to reach any part of the crystal. The thin spring-steel wire allows the delicate touch required to get good performance out of galena. The crystal holder shown was made from lamp parts. I soldered a 4-40 nut inside the side of the cup to provide good threads for the thumb screw. A simple U-bracket of tin or hobby brass works as well.

PRE-WAR SURPLUS

Most of us are aware of the surplus boom that followed World War II, but the Great War generated a fair amount of electronic goodies for hams and experimenters. This ad is from the May 1929 issue of QST. Pay close attention to the receivers in the second column.

BARGAINS

ARMY AND NAVY RADIO SURPLUS

Voltmeter, Westinghouse, No. 492419 cabinet portable, 2 scale 0-5-150, List \$6.50	\$ 2.50	Condensers, Dubilier, mica, transmitting, 8500 volt .004 mfd.	\$10.00
Voltmeter, Weston, No. 267 D.C., 0-70	7.50	Condensers, Dubilier, mica, transmitting, 12500 volt .004 mfd. <i>Prices on request</i>	
Ammeter, " No. 267 D.C., 30-0-40	7.50	Condensers, Wireless Specialty, transmitting, 12500 volt .004 mfd. <i>Prices on request</i>	
" " No. 267 D.C., 0-1.0	7.50	Keys, transmitting, Army practice	1.00
" " No. 301 D.C., 50-0-50	5.00	" " Airplane flameproof, silver $\frac{1}{4}$ " contacts	1.50
Voltmeter, " No. 269 D.C., 0-50	7.50	with blinker light mounted on bakelite base. List \$7.50	
Ammeter, " No. 269 A.C., 0-10	7.50	Special	2.00
Wattmeter, Roller Smith, A.C. and D.C., 0-750	3.50	Keys, transmitting, Navy, 2 K.W., silver $\frac{1}{4}$ " contacts	5.00
Amp. hour meter, Sangamo, bat. charge and discharge, type MS 2 sizes, 0-300 and 0-500, List \$50.00	10.00	" " $\frac{1}{4}$ K.W., "Mesco" silver	2.00
Ammeter, Westinghouse, A.C., 8" dia. less external shunt 0-300	10.00	Headphone, Army, with strap, 120 ohm	.75
Voltmeter, Westinghouse, A.C., 8" dia. with external res. 0-175	12.50	ohm Navy Radio School type, leather headband, 75 ohm	1.50
Generator, self ex. $\frac{1}{4}$ K.W., 500 cycle, 110 volt	15.00	Transmitter, telephone, U.S.N., 30 ohm (used)	.75
Dynamotors, twin, Westinghouse, C.W. 927, 30/750 volt, .08 amp	25.00	Microphone transmitter unit, Western Electric	1.00
Dynamotor, single, Westinghouse, C.W. 927, 30/375 volt, .08 amp	15.00	Magnetos, Army mine and ringer type, has 4 large fixed magnets, good value	1.00
Dynamotor, Gen. Elec. 12/350 volt, 143 amp	20.00	Magneto-generator, Marconi, hand driven, 1500 volts D.C., 12 milliamp.	12.50
" Crocker Wheeler, 25/275 volt, external shaft	12.00	Magnets, permanent, U shaped Western Electric, large size	.50
" Sperry Gyro Co., 6/400 volt, 200 watt	15.00	Variometers, Gen. Radio No. 107D and 107E., with series and parallel connections	5.00
Motor Generator, Crocker Wheeler, 110 D.C., 220 A.C., 500 watt, 500 cycle	50.00	Telephone & telegraph portable sets, aluminum case leather covered and carrying strap, including condensers, induction coil, key, micro-transmitter and receiver	3.50
Motor Generator, 110 universal motor, 300 D.C. generator, 200 watt	35.00	Telegraph and buzzer portable sets, mahogany case, 2 tone platinum contact high freq. buzzer, 2 telephone toggle switches, potentiometer, sending key, 3 mfd. condensers, transformer and 2 choke coils, receiver. \$30 value	5.00
Generators, 600 volt, 2 and 5 K.W. Westinghouse and G.E.	\$100 and \$200.00	Kolster wavemeter & decimeter, type C.N. 1215, 100-3500 meters, current sq. meter	85.00
Motors, Hamilton Beach, 1/20 H.P. universal, var. speed 110 volt	5.00	Receivers, Signal Corp type B.C. 14A., 200-600 meters, with cry. det. and Century buzzer in portable case	7.50
Motors, Edison, universal, 50 watt, double shaft, 110 volt D.C. 10	3.50	Receivers, Navy, C.N. 113, 300-2500 meters	15.00
110 volt	2.00	" Signal Corp, 300-3000 meters, with built in tube detector, portable	20.00
Motors, Underwood, D.C., 75 watt, double shaft 1200 R.P.M., 110 volt	3.00	Receivers, Marconi, 300-2500 meters, type 106, commercial ship type	35.00
Dynamotor armatures, Gen. Elec. triple commutators, two sizes, D.C. 12/750 volt and 24/1500 volt, complete with ball bearings, (build field and save \$30)	\$10.00 and 12.50	Receivers, Westinghouse, 1012, 50-1000 meters, built in tube detector	50.00
Transformers, West. Elec. radio, 50,000 ohm impedance, input type	1.50	Receivers, Navy, C.N. 240, 1000-10000 meters	50.00
Transformers, Peerless, 120 input, 5-10-15 volt output, $\frac{1}{4}$ K.W., 60 cycle	7.50	" S.E. 952A, 50-600 meters	75.00
Transformers, G.E. current type, 125 to 2500, with center tap, 60 cycle 200 Watt	7.50	" S.E. 143 and I.P. 500 <i>Prices on request</i>	
Transformers, AmerTran, 220 to 30000, open core, 2K.W. 60 cycle	75.00	Insulators, Electrose, strain 7"-15, 12"-35, 18"	.35
Transformers, AmerTran, 220 to 8000 closed core, 1 K.W. 500 cycle	15.00	Switch, Send and Receive, Navy, bakelite, back connect	1.50
Transformers, Simon, 220 to 11500 closed core, $\frac{1}{4}$ K.W. 500 cycle	5.00	" Telephone, toggle, 2-4-6-8 point	.50
Transformers, AmerTran, 220 to 12500 closed core, 2 K.W. 500 cycle	25.00	Coils, magnet, small 20 large	.50
Transformers, Special 250 Primary, 30 taps stepdown, 4KVA, 60 cycle	50.00	induction small size	.25
Resistors, Ward Leonard, 3 sizes, 600, 900, 2000, Edison base each	.60	" Retardation, West. Elect. No. 57C	1.00
Rheostats, variable, 400 ohm, 3 ampere	.75	Buzzers, Century high freq., 2 coils	1.50
Potentiometers, var., 200 ohm, 1.5 amp. airplane type	1.00	" West. Elect. extra quality, high freq.	1.50
" 1100	1.00	Code practice sets, Navy type, $\frac{1}{4}$ Kw. Bunnell brass key, Mesco high pitch buzzer, 75 ohm headphone, mounted on Bakelite base with 5 large binding posts, some with extra D.P.D.T. switches	4.50
" filament, 1 ohm, 8 amp. airplane type	.75	Charging panels, Navy S.E. 839, 110 volt, Ward-Leonard with automatic release, var. and fixed tes., Weston voltmeter and ammeter, Sangamo ampere hour meter. Complete with all switches	30.00
Gasoline Engine, 1 cylinder 2 cycle Smith 2 horse power complete	25.00	Air compressors, Kellogg, Model T, 1 $\frac{1}{2}$ cu. ft. per min.	3.00
Gasoline Engine, 2 cylinder 2 cycle Sterling 5 horse power complete	50.00		
Gasoline Engine, 4 cylinder 4 cycle Henderson 20 horse power, air cooled with Sturtevant blower all aluminum body complete with hand starter and separate transmission	75.00		
Condensers, West. Elec. 21AA 1000 volt 1 mfd, very good value	1.00		
Condensers, Kellogg, 500 volt 2 mfd	.50		
Condensers, Wireless Specialty, copper leyden glass jar, 10000 volt .002 mfd	2.00		

WANTED

CONDENSERS — 2000 to 15000 volt, all capacities.
RECEIVERS — Commercial type and wave lengths.
QUENCHED GAPS — From spark transmitters.
Navy types S.E. 908-1001-1002-1005.

Give complete particulars and price.

Largest Radio and Electric Supply House in U. S. devoting eight floors to and specializing on Army and Navy Surplus. Write us your particular requirements. New items are continually arriving. Sufficient postage must accompany orders. NO C.O.D. ON CANADIAN ORDERS.

MANHATTAN ELECTRIC BARGAIN HOUSE Dept. Q. 105-7 Fulton St., New York City

500KC

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Part 3. Why 500 kc/600 meters?

I have researched the literature in order to find an answer to this question, but have found nothing. I tend to think that this particular wavelength, 600 meters, became the standard by accident rather than some body of policy-makers deciding that it was to become the worldwide calling & distress frequency. Maybe the nature of early equipment might be the reason this wavelength became the standard. The length of the antenna on some early transmitters dictated the center frequency of their very broadband signal - given that the antenna would run the length of the ship might have a bearing on 600 meters became the international CW wavelength.

Regardless of whether it was by accident or choice, what was handed down to us was a wavelength with excellent evening propagation. Starting at about 2100 local 500 would come alive. Any ship or shore station within 3000-4000 could be heard by an excellent combination of ground wave and sky wave - nothing was missed within this radius! Shore stations of more than 5000 miles were easily copied (Australia and New Zealand boomed in nightly). Daytime propagation consisted of only ground wave: 300-500 miles was the maximum range possible. Thus most daytime traffic was passed on the HF channels.

The idea of combining a distress frequency and a calling frequency was an excellent one - it insured no distress calls would be missed, and at the same time everyone knew where everyone else was at! No need searching various frequencies looking for a particular ship or shore- station. The result was a worldwide partyline; if you sent so much as a single dit everyone would hear it:

Ships operated on either a one-op or two-op schedule so our broadcasts coincided with these skeds. But shore stations had to remain on the air 24 hours a day. Late nights could become a bit of a bore for some shore ops, heavy eyelids and such. So out of boredom (or maybe by "accident") a single dit would ring across the Pacific, only to be answered by another dit possibly several thousands of miles away. Then all hell would break loose: every shore station and any ships with an on-duty op would be sending dits! For several seconds 500 sounded like a machine gun - 100 or more carriers were ditting away. As quickly as it started it would fade away. A variation of this was someone sending a single GE (good evening); of course it would be impolite not to respond in kind so someone else would answer with GE. Within a half second at least one hundred GE's would flood the frequency! My log entry would look like this:

```
GE / GE / GE / GE / GE / (OPNOTE: AT LEAST 100 GE'S SENT)      500      1123Z
```

Some Coasties were unhappy with their duty assignment (Alaska, or some LORAN station in the middle of the Pacific, or on board a patrol ship) and made their sentiments known to the world: one op would send an F, a second disgruntled Coast Guardsman would follow with a T, only to be followed by a third CG op sending G - three Coasties separated by 100's or 1000's of miles of water expressing their thoughts as one. The acronym FTG stood for a very common expression in the Guard: F___ The Guard. In the log it goes:

```
FTG                                          500      1305Z
```

After 2100 local there would be a steady stream of CW on 500 - ships calling shore stations or other ships:

```
KHK (making a pest of himself!)
DE (in other words: `who the heck is calling me?')
DE KNLS TR K
KNLS DE KHK R UP 485 K
OK 485/480 UP
EE
EE
```

Translation: The ship KNLS, ignoring the usual 3X3 callsign format instead was going to endlessly call the shore station KHK until he got some attention; KOK interrupted him with a simple DE after which KNLS told him he had a travel report (TR). KHK's answer was `Roger, I'll transmit on 485 kc' to which the ship answered `Okay, you transmit on 485 and I'll transmit on 480 - let's go up' (up in wavelength that is, not in frequency - traditions are hard to break!). By the way, KHK was a shore station located on a beach here on Oahu.

Or,

```
TTT TTT TTT CQ DE ZLD ZLD CYCLONE WARNING NR 15 QSW 428 AR
```

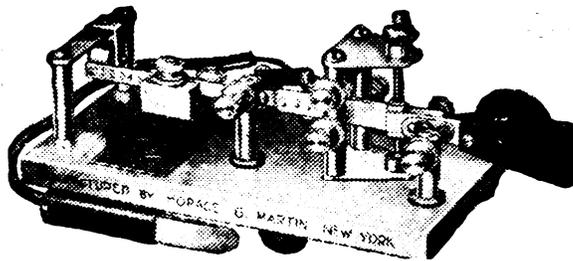
(These types of broadcasts, prefaced with TTT or XXX, will be discussed in Part 4.)
Or,

CQ CQ CQ DE WNOP WNOP ANY ONE HV 2100Z SOUTH PACIFIC WX? K
WNOP DE XSU GE WILL GIVE 2100 WX ON OUR 2200 BCST K
OK TKS OM SU
SEEU
EE
EE

And on and on throughout the night - very orderly. You'll note each series of transmissions end with a `dit dit' (recorded as EE); and amateur radio operators thought they invented this `prosign'!

Part 7 will contain an actual transcription of one of my evening logs. Part 6 will describe a distress in which a ship broke up in heavy seas and all hands were lost - it will contain my QSO with the ship's operator up to the last second of his life.

End of Part 3.



CENTRAL PA. SWAP MEET SATURDAY, MAY 15

Central PA Radio Collectors Club Outdoor Swap Meet & Show

May 15, 1999 (rain date is 5/22/99)
Cloverleaf Barn Antique & Gift Village
120 McCracken Rd.
Rte. 80, Exit 33 Danville (Rte. 54W)
8:00 - ? Food Available
Dealer Space- \$6.00, bring your own tables
Info: Frank Hagenbuch
(570) 326-0932 after May 1.

BUY SELL SWAP

WANTED: Information on "Lang" radios: literature, pictures, pricing, etc. Charles J Dreitleio, 515 Elizabeth St., New Milford, NJ 07646, 201-384-3862

FOR SALE: Assorted: 3 Home brew amplifier chassis with UTC and Acrosound transformers- tubes- and meters (SEE: <http://www.netaxs.com/~am004d/equipment> for pictures), Amprobe RS3, AKG D109mic, EV 660A mic, Sony VP2011 3/4U matic-NR, Simpson 371 AC voltmeter, Simpson 260 manual, RCA T2K radios(2),12" Jensen speaker from floor console radio-with field coil, Triplettfrequency counter Model 7000 - Mike Muderick-610-449-6970, or Mike@Muderick.com

WANTED: Gernsback's Official Radio Service Manuals: 5, 7, 8. **RCA Victor Service Data:** '47, '48, '49, '51. Mike Tannenbaum, 215 540-8055, k2bn@agtannenbaum.com A.G. Tannenbaum, POB 386 Ambler PA 19002, Phone 215 540 8055 Fax 215 540 8327, Web URL www.agtannenbaum.com, e-mail k2bn@agtannenbaum.com.

FOR SALE: Old radios and 78 RPM records from an estate. Includes **Zenith #5614**, **Silvertone** radio/disk recorder, and **RCA ACR-175** communications receiver. Contact: George Rottina, 17A Lumberjack Cir., Horsham, Pa. 19044. Phone: 215-675-9055.

FOR SALE:: **7JP4 CRT**, good filament, screen looks OK, make offer. Alton Dubois, Jr., 67 Peggy Ann Road, Queensbury, NY 12804, Phone 518-792-3130

HELP: Would the person who sold Marc Ellis the Philco 70 cabinet please contact him at PO Box 1306, Evanston, Ill 600204-1306; ellis@interaccess.com; 847-869-5016.

WANTED: Howard Sams book "From CB to Ham Beginner" by J.A. Stanley. Richard C. Yingling, 2 S. Locke Ave., Yeagertown, Pa. 17099, (717) 242-1882

HELP WANTED: Need someone to repair a Philco 4654 Predicta TV. Ray Casper (609) 695-8312

WANTED: Emerson AU-190 chassis; FADA 659 dial glass; Chelsea ZR-4 audio transformer; Sentinel 400 Television; Plastic CRT cover (front) for 17" Philco Predicta; Pilot TV-37 tuning knob (wood). Frank Johnson, 530 Elford Rd., Fairless Hills, PA 19030-3624 (215) 943-8295

FOR SALE: Parted out Stromberg Carlson model 19-20 AC. Power transformer appears O.K. IF's are O.K. Electrodynamic speaker is electrically O.K., needs cone repair. Make offer. Alton Dubois, Jr., 67 Peggy Ann Road, Queensbury, NY 12804, Phone 518-792-3130

WANTED: Japanese tubes: UF134, UZ135, UF109A, UF111A, UY133A. Lewie Newhard (610) 262-3255

WANTED: Sales literature, service manuals, and equipment for theatre sound / broadcast use by RCA Photophone, Century Sound, Motiograph, Altec, Western Electric, etc. Theatre catalogs by Jay Emmanuel Publications, Philadelphia. Scott Stillwell, 2328 Cambridge Circle, Hatfield, PA 19440 (215) 393-1833 pager: (800) 717-9306



Bradleyunit-B