



OSCILLATOR

The Official Newsletter of the DVHRC

Vol. 8. No. 6, June, 2000

Our Next Meeting

The next DVHRC meeting will be held at 7:30PM, June 13, at the Telford Community Center. Lewie Newhard has volunteered to share his knowledge on the restoration of the infamous Philco capacitor blocks. The usual auction will follow the meeting.

May Meeting Notes

by Dave Snellman

Our May meeting was held on the 10th, just a few days before the 2nd Annual Kutztown Radio meet. It was certainly well-attended by DVHRC members. Another meet that took place just one week later was the NJARC meet at the Hightstown Country Club. Again, a nice representation of DVHRC members, both as sellers as well as buyers.

We had report about the Trenton Computer Fair, held just prior to our meet. In years past, you'd find quite a few radio-related treasures at the flea market, but this year the market was relatively bare. The NJARC had a radio display set up on Saturday. They had a lot of traffic through the display to look at the "old stuff." Their display was much better than the "antique computer" display which consisted of an old reel of computer tape and a couple of Xeroxed articles! The old radios still pay, the old computers...well they make good doorstops!

On to the happenings at the meeting. Al Klase had a "show and tell" item. Back in March our topic was communications receivers. This month we saw the results of the "re-capping" and conditioning of Bill Overbeck's vintage Hallicrafters SX-62. Al explained this was a "rich man's toy radio." It sold for about \$400 in 1962. It's frequency coverage was 535 kHz to 108 MHz continuous. It received AM and FM. Audio was supplied via push-pull 6V6 output tubes. Hook up a decent speaker and this is a good sounding set. Over 40 of those old caps were replaced. Al did a great job and this set should provide many more years of good listening.

Back to March again. We had a technical session on troubleshooting communications receivers that started out with a good overview of these receivers. Well, we promised to delve into the "All-American-Fiver" and that's what we did in this month's session. Ted Sowirka presented a very thorough overview of this type of set.

The "fiver" is an AC/DC set consisting of a five-tube line-up. It was introduced in the 1930's and millions were sold. Many were sold "on time." Even though their cost was less than \$20. Payments were typically 50 cents per week. They were assembled, usually by women, using 100-watt soldering irons. At the selling price the company wasn't making much money. Most manufacturers made up for this on replacement tube sales. In many households, this was the main radio. These sets had a loop antenna. As loops are directional, you'd rotate the set to bring in the best signal. A typical tube line for a later model "fiver" would consist of the following miniature tubes: 12BE6, 12BA6, 12AV6, 50C5, and 35W4. It was also typical to tap the heater of the rectifier tube to provide a pilot light. There is no power transformer in this type of set. This can cause a serious safety problem. If the AC cord is put in the receptacle the wrong way, the chassis is "hot!" You'd find

(Continued on page 2)

COMING EVENTS

| | |
|---------|----------------------------------|
| 9 June | NJARC Meeting, Freehold, NJ |
| 10 June | Hamfest, Bloomsburg, Pa. |
| 13 June | DVHRC Meeting, Telford, Pa. |
| 17 June | Hamfest, Dunellen, NJ |
| 18 June | Hamfest, Frederick, MD |
| 30 June | Radio Auction, Stewartsville, NJ |
| 2 July | Hamfest, Wilks-Barre, Pa. |
| 4 July | Hamfest, Harrisburg, Pa. |
| 11 July | DVHRC Meeting, Telford, Pa. |
| 14 July | NJARC Meeting, Freehold, NJ |
| 15 July | Hamfest, Berwick, Pa. |
| 16 July | Hamfest, Kimberton, Pa. |
| 16 July | Hamfest, Sussex County, NJ |
| 30 July | Hamfest, Timonium, MD |

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.

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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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OSCILLATOR EDITOR

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OSCILLATOR CONTRIBUTORS

John Dilks, K2TQN Alan Douglas
Alton DuBois, Jr Mike Koste
Bob Thomas, W3NE Ludwell Sibley
Dave Snellman Ted Sowirka

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LIBRARIAN & TUBE PROGRAM

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WEB PAGE

<http://pw2.netcom.com/~firststake/dvhrc.htm>

Webmaster: Brian Erwin 610-566-8858

MEMBERSHIPS

Mike Koste

OSCILLATOR ARTICLES & MEMBER ADS

Mail to the editor at 22 Cherryville-Stanton Rd., Flemington, NJ 08822
(908) 782-4829

Fax: (908) 783-8361

E-mail: skywaves@bw.webex.net

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(Continued from page 1)

110V AC on the chassis and on any protruding metal, such as cabinet screws or metal knobs. Be careful when working on these sets – or even when just trying them out. It would be a good idea to replace the old AC plug with a modern, polarized one.

Some additional details on these sets. They had a frequency response of roughly 140 Hz to 5 kHz. This response minimized any AC hum. Half wave rectification followed by a “pi” type filter provided power to the set. The electrolytic caps were usually the dry type and if they went bad, they would take the rectifier tube with it. They used a penta-grid converter in the front end. These tubes had to work very well to pick up the signal off of the antenna and send it down the line.

The rest of the presentation consisted of questions by the audience. As many related to tubes, Ted talked a bit about tube manufacturing at RCA’s Harrison plant. RCA made tubes at Harrison for over 45 years. Starting in 1930 and continuing into the 1970’s, it all came to an end in 1976. A twelve-day auction, late in 1976, liquidated all the fixtures and machinery. The buildings, too, were on the block. Today a strip mall occupies the land where these buildings once stood.

Speaking of auctions, no meeting is complete without one and May is no exception. The usual line-up of radios and related materials all went on the block.

Also, a note about the auction held at the Kutztown meet... DVHRC reaped the benefits of the commissions paid on the items sold at this auction. Pete Grave was the auctioneer with Ted Sowirka and your truly serving as clerks. Dave Abramson, Bill Overbeck and a few others assisted with moving the auction items through.

That’s it for May. The June meeting is the 13th.

Impact of Advertising

Don Ironside sent this clip from the “50 and 100 Years Ago column of May 1976 *Scientific American*. He comments, “I was a little surprised how fast advertising was taking hold” (in 1926).

“Radio during the past winter season won many noted artists to the microphone, prominent among them Mme. Schumann-Heink, John McCormack, Lucrezia Bori, Marty Garden, Louis Homer, and Charles Hackett.. All seem to have been attracted to radio under the auspices of advertisers. Thus the desire to get the name of the firm or product known has greatly improved the quality of radio entertainment. Mme. Homer was asked whether artists missed the applause they are accustomed to receiving from concert-stage audiences. “Yes and no,” answered the prima donna. “The hall may be filled with a storm of applause, but the artist alone knows whether it is deserved.” ”

Useful Coil Data and a Story

Dear Al,

Enclosed is a set of tables for all the coil winders in the club.

One of my hobbies is reproducing copies of some of the old regenerative radios and repairing commercial ones, mostly the pre-1927 battery jobs. All this started when I was a kid in 1934, when I bought a one-tube radio kit from another kid, who was given it for his birthday and didn't want it. I gave him \$5.00 for it, a lot of money for a kid in 1934. I don't remember the name of the kit. It was probably a Pilot.

After studying the diagrams and instructions for hours, I spent more hours constructing it. By that time it was 1:00 AM down in my basement workshop. I hooked up the batteries, put on the ear-phones, and hesitatingly turned on the switch. Instantly, I heard "This is BJN, Berlin Germany". I jumped up and hollered "It works!"

Suddenly, my father appeared in the doorway wanting to know what was wrong. He was quite impressed, because in the late Twenties, I remember my mother tossing a hot soldering iron out of a third story window of our apartment to my father as he was installing an antenna for the radio he was building from the plans in *The New York Sun* newspaper. The radio bug has bitten me ever since, and I still get a big charge out of building my own radios.

Sincerely,
Alton A. Dubois

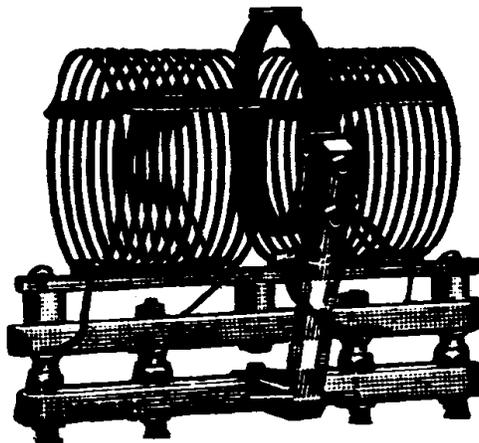


TABLE I

| size B & S gauge | Turns Per Inch of Magnet Wire on Coils | | | | |
|------------------------|--|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
| | enameled | single- cotton- covered | double- cotton- covered | single- silk- covered | double- silk- covered |
| 20 | 29 | 25 | 23 | 27 | 26 |
| 21 | 32 | 28 | 26 | 31 | 29 |
| 22 | 36 | 31 | 28 | 34 | 32 |
| 23 | 41 | 34 | 31 | 38 | 36 |
| 24 | 43 | 37 | 33 | 42 | 39 |
| 25 | 51 | 41 | 36 | 47 | 43 |
| 26 | 56 | 43 | 39 | 52 | 46 |
| 27 | 64 | 49 | 42 | 57 | 52 |
| 28 | 71 | 54 | 45 | 63 | 56 |
| 29 | 79 | 58 | 48 | 70 | 63 |
| 30 | 88 | 64 | 56 | 77 | 67 |
| 31 | 100 | 69 | 57 | 85 | 72 |
| 32 | 112 | 75 | 60 | 93 | 78 |
| 33 | 134 | 81 | 64 | 102 | 84 |
| 34 | 140 | 87 | 66 | 112 | 91 |
| 35 | 156 | 94 | 73 | 120 | 97 |
| 36 | 173 | 101 | 78 | 130 | 104 |
| 37 | 201 | 108 | 84 | 141 | 110 |
| 38 | 225 | 115 | 89 | 151 | 117 |
| 39 | 256 | 122 | 95 | 163 | 123 |
| 40 | 288 | 130 | 102 | 179 | 129 |

TABLE II

| Number of Inches of Wire Around a Core of a Given Diameter | | |
|--|--------------------------|---------------|
| diameter in decimals | diameter in fractions | circumference |
| .25 | 1/4 | .785400 |
| .50 | 1/2 | 1.57080 |
| .75 | 3/4 | 2.356200 |
| 1.0 | 1 | 3.1416 |
| 1.50 | 1 1/2 | 4.71240 |
| 2.0 | 2 | 6.2832 |
| 2.5 | 2 1/2 | 7.85400 |
| 3.0 | 3 | 9.4248 |
| 3.5 | 3 1/2 | 10.99560 |
| 4.0 | 4 | 12.5664 |
| 4.5 | 4 1/2 | 14.13720 |
| 5.0 | 5 | 15.7080 |
| 5.5 | 5 1/2 | 17.27880 |
| 6.0 | 6 | 18.8496 |
| 6.5 | 6 1/2 | 20.42040 |
| 7.0 | 7 | 21.9912 |
| 7.5 | 7 1/2 | 23.56200 |
| 8.0 | 8 | 25.1328 |
| 8.5 | 8 1/2 | 26.70360 |
| 9.0 | 9 | 28.2744 |
| 9.5 | 9 1/2 | 29.84520 |
| 10.0 | 10 | 31.4160 |
| 10.5 | 10 1/2 | 32.98680 |
| 11.0 | 11 | 34.5576 |
| 11.5 | 11 1/2 | 36.12840 |
| 12.0 | 12 | 37.6982 |

—FREDERICK J. RUMFORD

RADIO AUCTION

Friday, June 30, 2000
Dennis Auction Ctr.,
Hwy 57W Stewartsville, NJ, 6:00 pm
Preview: Thurs, 4-8 pm & Fri. after 12

Large selection of consoles, table radios, battery sets, HAM gear, test equipment, wood cased GR lab equipment, parts and tubes. Radios include Atwater Kent, Fada, Philco, Westinghouse Columaire, Fairbanks-Morse, Zenith, Arvin, Stewart Warner, GE, RCA and others, plus magazines, Riders & other paper.

(908) 859-3424 for info or www.dennisauction.com
10% buyers premium applies

WANTED: for RCA TK-11 Camera restoration: oak field tripod (Mitchell?), chrome script "television", chrome 1.1" RCA logos, viewfinder hood, and old network logo panels.
Dave Abramson, 610-827-9757
dtatv@worldnet.att.com

WANTED: Information, circuit diagram, and purpose of the following set. 30-50 MC FM monitor Kinight model KG-220 by Allied Radio, Chicago. Service number: 8343111-610003-6N
Alton A. Dubois, Jr., 67 Peggy Ann Rd., Queensbury, NY 12804

WANTED: AM-FM-PHONO-AUX selector switch for a Sherwood Model S-7650CP stereo receiver.
Fred Saul, 610-481-5034 (days)

FOR SALE: Military WWII RAK-7, CND 46155 low freq. 6 band 15khz to 600khz receiver with matching CND 20131 power supply and cable, all in "like new" condition; made by Andrea. \$100.00
Ray Chase, 1350 Marlborough Ave., Plainfield, NJ 07060 (908) 757-9741 e-mail: enrpnr@erols.com.

FOR SALE:

Radios: Regal 747 4-tube portable, Fisher FM-80 tuner, Philco "Tropic" portable, Zenith 10S549 console, RCA AVR-11A, Atwater Kent Model 40, others.

Parts: big-pin tubes, vintage semiconductors, geiger-counter parts.

Paper: Vintage Allied, Lafayette, etc. catalogs. Service notes and vintage manuals.

Contact me for a list. John Rohr, 348 Farm Lane, North Wales, Pa., 215-661-1134 FAX: 215-661-2910 jaxrohr@netreach.net

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