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A.W.A. JOURNAL
"The Old Timers Bulletin"
Editor: Bruce Kelley
Assistant Editor: Dick Ramsey

The OLD TIMERS BULLETIN is published approximately once a year at Holcomb, N.Y. by and for members of the Antique Wireless Association, Inc., a non-profit historical society chartered by the State of New York.

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DUES: PAYABLE TO TREASURER
Lincoln Cundall
69 Boulevard Parkway
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FIRST CLASS MAILING:
1 year - $8.00
2 years - $16.00

SECOND CLASS MAILING:
1 year - $6.00
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OVERSEAS MAILING:
1 year - $10.00 (Airmail)

Effective June 1, 1968

WHO TO WRITE TO: (Write legibly. Enclose S.A.S.E. for prompt reply)
Charles Brule Ford (President) 255 Danbury Circle So., Rochester, N.Y. 14618
All official business, Conference and meeting activities (Tel. 716-220-9201)
Lauren Peckham (Vice-President) 30 N. Main St., Brockport, N.Y. 14420
Material for Vacuum tube Newsletter, Conference activities (Tele. 607-729-5447)
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Museum activity and maintenance.

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Bulletin mailing and back issues.

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Electrical equipment and light bulb development. Museum Planning Chairman.

Robert Morris, Sunset Lake Rd., RFD #1, Sparta, N.J. 07871
Hour Award Chairman and associated activities.

Kenneth Gardner, 42 Oakdale Ave. So., New Hartford, N.Y. 13413
All business relative to amateur radio activities. Net Lists and Courses.

Change In Address?
Mail information to the Treasurer who handles current mailing list.
(NOT the Secretary)
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PHONE (SSB) -- 3866 kc. Tuesday 8 PM
Mon. - Wed. - Fri. at 9:30 AM
Sunday -- 7242 kc. 12 Noon
Tuesday -- 14270 kc. at 5:30 PM
CW -- 3584 kc. daily at 4 PM
First Wed. each month at 8 PM
COMING EVENTS

ANTIQUE WIRELESS ASSOCIATION

OT TRANSMITTING CONTEST
Jan. 17 and Jan. 21

ANNUAL AWA - I HRS MEET
May 8-9, Auburn, Indiana

LOCAL AWA SPRING MEET
American Legion Hall
East Bloomfield, N.Y.
May 16 (date subject to change)

UPPER MID-WEST ANNUAL MEET
Minneapolis, Minn.
May 22-23

Regional Summer Meet - Date and location in next OTB.

NATIONAL CONFERENCE
Sept. 24, 25, 26, 27

ANNUAL BUSINESS MEETING
2 P.M., Nov. 1
Sheraton Inn, Canandaigua, N.Y.
All members are urged to attend

Other events to be announced in next Bulletin.

SILENT KEYS

William Miller, W3NST
Sherwood Githens, W4EQX
Carl Wilson, WA1CTI
Richard Peck, W4RL
Ray Jobes, W2IM
Edward Caffrey
Harry Braun, K2IV

MUSEUM ACCESSIONING

In the process of taking the new inventory of equipment in the AWA Museum, the Committee ran into the problem of 'lost identity' --- items with lost identification tags.

To eliminate this problem and provide a permanent accession number, AWA will in the future mark all new items (as well as existing pieces) with a special white or black marking pen. The letters 'AWA' and the accession number will then be covered with a clear DuPont lacquer to prevent removal. This is not original. It is used by many museums including the Smithsonian.
Superlatives barely describe the recent AWA Conference: record attendance from all 10 US districts, excellent programming, largest antique radio flea market ever held, that once-a-year opportunity to renew acquaintances and make new ones... just 5 great days of action!

SOME HIGHLIGHTS:
-- several new awards given for the first time.
The ELLE Award went to Alan Douglas for his beautiful Marconi Multiple tuner replica. craftsmanship at its best.

The MATLACK Award for the best OT transmitter was given to Bill Shaw, W2HYN. Bill's xmt was not only well constructed but workable as attested by its performance in the 1980 OT Contest.

The TYNE Award for outstanding work in vacuum tube technology met the approval of all when Bro. Patrick Dowd stepped forward to accept the plaque, presented by Elliot Sivowitz of the Smithsonian.

The Annual HOUCK Documentation Award went to pioneer Lloyd Espe- schied for his past work. Lloyd is an Honorary AWA member and one of the living greats in the professional radio field.

Dr. Ralph Muchow won great applause when he accepted the HOUCK Award for preservation from Dr. 'Cy' Stein of the California Foothill Museum. Ralph, unquestionably, has one of the finest radio collections in the world. In addition, he is most knowledgeable on the subject.

-- other items: members as well as motel management agreed the new flea market arrangement was successful. Everyone was co-operative except the weatherman. There was one real chilly day.

[Continued on next page]
---a new seating arrangement made a much smoother running auction when AWA volunteers moved an enormous amount of material with few 'misses'... and we must not forget to thank Harvey Gernsback and Fred Shunaman for the R-E '50th Anniversary' issues given out at the banquet...
---attendance? Linc ran out of his 500 registration badges at noon Friday. Total attendance about 700...

---just about everyone enjoyed the diversified programming highlighted by our special guest Anthony Constable of the British Vintage Wireless Society.

---and more... Ed Taylor's mechanical TV demonstration in his motel room, Mel Comer with his usual surprise awards and 'Show and Tell', Fred Hammond providing AFTs for restoration and Sid Prior with his annual drawing of 'goodies'... and then there was the trip for the ladies to the new Corning Glass Center... two bus loads...
---Linc Cundall receiving the President's Award with due credit to XYL Helen, a grinning Bob Morris accepting the OT Contest Award; and lastly, the Equipment and Tube Contests handled by those two tireless workers Ralph Williams and Lauren Peckham. More on the Contests later... in the meantime... start planning for Dearborn. The date: Sept. 24-26, 1981.
SUMMARY OF CONFERENCE AUCTION

(F) Fair, (G) Good, (VG) Very Good, (E) Excellent. All sets without tubes unless noted as "W/T".

_Crosley Pup w/Wd1l (F) $125., Navy type loosecoupler (Rad. Appar. Co.) (VG) $230._
_Freed-Eisenman Mod. 30 310, Hallicrafter Tfi Skyrider (G) $80., GE Mod. M-15A (G) $20., NR-6 (G) $50., Ware Music Master Type 50 (G) w/t $85., Steinite (G) $65., Splittorf R-500 w/t (G) $50., Signal loosecoupler (VG) $130., Browning-Drake (F) $26., Stewart-Warner 300 (bad aft) (F) $40., Hammardlun-Roberts w/t (G) $41., Arlington coupler (G) $75., Pilot SW converter (G) w/t $30., Murdock 2-slide tuner (E) $80., Westinghouse RC (G) $80., Homemade SW rcvr (E) $24., Comet-Pro (E) $85., Eretung 14 (VG) $75., Crosley V w/t (G) $85., At-1300 & 1400 (G) $100., Grebe CR-8 w/t (E) $420., Freshman Masterpiece w/t $35., Paragon Type 2 w/t $170., Grebe RORK (E) w/t $250., Browning Drake w/t (E) $60., AK-20 (G) $40., AK-10 (G) $250., AK-10 (G) $350/600 (G) $290., Radiola III (F) $45., Radi 111 w/t (E) $75., Rad. III w/open aft $47., Radi. IIIA (F) $33., Radi. IIIA w/t and horn $95., Aerola Sr. w/amp. (G) $170., Aerola Sr. w/t (G) $10., Aerola Jr. w/ Brandes phones (VG) $175., SW-3 (F) $30., SW-2 w/set 2 coils (F) $50., IPS01-A (VG) $825., Graybar Mod. 330 (F) $30., Crosley Showbox /spkr (G) $40., Radiola 20 w/t (E) $70., Clarion cath. 620 w/t (G) $30., Radi. 33 w/t (E) $45., WE 7A (G) $60., WE 7A (F) w/t $100., De Forest Interpanel w/t (E) $725., AK-10 w/t (G) $350., Magnavox Mod. JF (E) $55., Fada 110A (G) $25., Navy loosecoupler (E) $185., RGS (Grimes) w/t (VG) $290., AK-35 (F) $40., 1 tube Crosley VACE w/t (VG) $100., Nat. HRO Jr. w/pwr apply (E) $45., McMurdo III (12 tube) (E) $350., Everyman 4 (E) $50., AK-20 (G) $40., G. R. BCI-4A w/5 xtal/VG $220., Bristol amp. (E) $120., WW2 German rcvr (F) $100., RME HF conv. (G) $30., Thompson neut. w/t (G) $70., RADA RC/VG w/t $140., 1 tube set by Tri-city w/t (E) $70., National 1-10 w/coils (G) $50., RCA 28 w/t (G) $110.,

Early Philmore xtal set (VG) $50., Ak-33 (VG) w/t $40., Howard 430 (F) w/t $30., AK-33(VG) w/t $40., Thermodyne TFG (VG) $60., Metrodyne-7 (VG) $100., Kellogg RFL (E) $50., AK-33 w/t (G) $40., Crosley 5-50 w/t (VG) $70., AC Dayton XL-25 (VG) w/t $75., Crosley 51 w/t (E) $75.

LOUDSPEAKERS:

AK mod. H (G) $80., WE horn (VG) $60., RCA UZ-1225 (VG) $55., 24" WE cone (G) $45., Silvertone spkr (G) $45., Magnavox horn R-3 (VG) $105., Music Master (G) $50., Radiola 100 (G) $17., RCA 106 (E) $60., WE D-10 (VG) $65., Bremer-Tully (E) $20., Radiola 103 (G) $35.

MICellanEous:

AR-12 loop (G) $45., early electro-medico mach. (F) $25., 9 Field telephones $35., British plug-in xtal det. (VG) $20., Tube display case (G) $50., Faradic battery (VG) $38., early Leeds-Northrup Galvan. (E) $100., 1st mod. Vibroplex (E) $40., Mascot spark gap in orig. box $40., G. R. cap. bridge (G) $45., Victor 78 rpm record player (G) $55., Murdock kick-back preventor (G) $35., W-U Sonder & mount (VG) $55., Supreme Vedolyzer 560 (G) $50., Pwr supply for Nat. rcvrs (G) $27., Emerson display sign $50., Wm. B. Duck stock certificate (E) $50., WE mike $55., Stromberg-Carlson neon sign $25., Tripolett tube tester (G) $20., _Book: "Big Business and Radio" by Gleason Archer (G) $32._

COMMENTS:

_Tubes_-- one of the best tube buys was a new hard-to-find RCA 203-A for only $10. I hope someone bought it for an OT xmtr. WD-11's are still holding their own and I wonder if collectors are really using good tubes in their Radiola III's? It is interesting to see Brightson's retaining their demand. Very few rare tubes were visible... an exception could have been the A-P 2 in1 tube for $45. Spherical audions with one or two good filaments just were not available. It was a shame to see some of the beautiful WWII surplus transmitting tubes for for next to nothing._

(Cont. next page)
From the President:

Storage of our historical radio collection has always been a concern for AWA. We display much of this collection, of course, in our fine Museum. Other unique items are stored for future displays or historical research.

Parts of our collection which are not in the Museum are now in four different places. I have felt for some time that these items should be accessible and safely preserved for future use.

Last year I appointed - Bruce Roloson, Chairman, Roland St. Louis and Bruce Kelley - to investigate the availability of a building in our area for storage purposes. This committee served well and reported on several possibilities.

The Executive Committee accepted one for further investigation. This involves the erection of a building in East Bloomfield. Such a building would be constructed with metal sides and roof.

Its appearance would be compatible with the surroundings and its cost would be reasonable. It would serve well the purposes we have in mind by providing safe and dry storage for our collection for years to come.

From time to time the Directors and Executive Committee will review plans for the storage facility. We will keep you advised of our progress through the Bulletin.

Charles Breizlford

PHILIPS — AMERICAN

Do you have an early overseas receiver using Philip's tubes and need an American equivalent replacement? The following table may be of value:

<table>
<thead>
<tr>
<th>Philip's No.</th>
<th>American No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F109A</td>
<td>226</td>
</tr>
<tr>
<td>F209A</td>
<td>227</td>
</tr>
<tr>
<td>F242</td>
<td>224</td>
</tr>
<tr>
<td>F203</td>
<td>245</td>
</tr>
<tr>
<td>C603</td>
<td>171-A</td>
</tr>
<tr>
<td>F704</td>
<td>250</td>
</tr>
<tr>
<td>1560</td>
<td>280</td>
</tr>
<tr>
<td>1562</td>
<td>281</td>
</tr>
</tbody>
</table>

Specs are almost identical between Philips and its American counterpart.
The invention of the movable coil earphone by Pridham and Jensen in 1911 to produce a more sensitive telephone receiver was obsoleted by the DeForest amplifier tube. By chance, in May, 1915, Mr. Pridham played his moving coil telephone receiver through a phonograph horn and the Magnavox - or great voice - was born. Not until 1920 was the radio developed sufficiently to promote this device as a radio speaker.

By 1926, Magnavox had produced 400,000 speakers and over 150,000 were the R3 type, which has become a standard of possession among antique radio collectors. Probably the oldest known manufacturer of horn speakers for public use, Magnavox made more models of horn speakers than any other manufacturer of the 1920's and made the largest horn speaker in the world (over 1,000 board feet of spruce used).

The listing of horns and drivers in Table 1 identifies 15 type models of upright Magnavox horns, a base unit driver, a cabinet model horn, and two drivers which were special uses of the driver from the M4 type horn, offered to the public for sale. Magnavox manufactured horns for other purposes also, such as the type MV-1 Music and Voice Telemegafone.

Magnavox used the word "Telemegafone" (distant megaphone) as a generic term to describe their moving coil driver, as well as their moving coil driver and horn. When a collection of apparatus was grouped together for a specific purpose, the system was given a letter type designation.

Thus, when the moving coil driver (telemegafone) was mounted on a board with a step down induction coil and binding posts, for use as a radio speaker, the system was designated

**TABLE NO. 1**

<table>
<thead>
<tr>
<th>Item</th>
<th>Type</th>
<th>Model</th>
<th>Earliest Advertised Date</th>
<th>Dimension (in in.)</th>
<th>Crystalline Finish</th>
<th>D.C. Resistance (in Ohms)</th>
<th>Field (in Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 LS2</td>
<td>Radio</td>
<td>-/A/B</td>
<td>18</td>
<td>33 22</td>
<td>C</td>
<td>8</td>
<td>800</td>
</tr>
<tr>
<td>2 Radio</td>
<td>telemeega</td>
<td>20</td>
<td>17 6/22</td>
<td>S/C</td>
<td>8</td>
<td>1700</td>
<td>.6</td>
</tr>
<tr>
<td>3 R-1</td>
<td></td>
<td></td>
<td>20</td>
<td>17 6</td>
<td>S</td>
<td>8</td>
<td>1700</td>
</tr>
<tr>
<td>4 R2</td>
<td>A</td>
<td>20</td>
<td>33 22</td>
<td>C</td>
<td>No</td>
<td>8</td>
<td>1700</td>
</tr>
<tr>
<td>5 R-2</td>
<td>B</td>
<td>22</td>
<td>32 18</td>
<td>C</td>
<td>No</td>
<td>8</td>
<td>1500</td>
</tr>
<tr>
<td>6 R-2</td>
<td>C</td>
<td>25</td>
<td>31 18</td>
<td>C</td>
<td>No/yes</td>
<td>8-50</td>
<td>670</td>
</tr>
<tr>
<td>7 R-3</td>
<td>A</td>
<td>21</td>
<td>6 S</td>
<td>No</td>
<td>8</td>
<td>1670</td>
<td>1.0</td>
</tr>
<tr>
<td>8 R-3</td>
<td>B early</td>
<td>21</td>
<td>26 14</td>
<td>S</td>
<td>No</td>
<td>7</td>
<td>1400</td>
</tr>
<tr>
<td>9 R-3</td>
<td>B late</td>
<td>22</td>
<td>28 14</td>
<td>C</td>
<td>Yes</td>
<td>5</td>
<td>680</td>
</tr>
<tr>
<td>10 R-3</td>
<td>C</td>
<td>23</td>
<td>28 14</td>
<td>C</td>
<td>Yes</td>
<td>5</td>
<td>720</td>
</tr>
<tr>
<td>11 R-3</td>
<td>D</td>
<td>24</td>
<td>28 14</td>
<td>C</td>
<td>Yes</td>
<td>8-50</td>
<td>700</td>
</tr>
<tr>
<td>12 R-4</td>
<td></td>
<td>21</td>
<td>14 S</td>
<td>No</td>
<td>—</td>
<td>400</td>
<td>1.0</td>
</tr>
<tr>
<td>13 M-1</td>
<td>A</td>
<td>24</td>
<td>26 14</td>
<td>C</td>
<td>Yes</td>
<td>—</td>
<td>1300</td>
</tr>
<tr>
<td>14 M-3</td>
<td></td>
<td>25</td>
<td>26 15</td>
<td>C</td>
<td>Yes</td>
<td>—</td>
<td>1400</td>
</tr>
<tr>
<td>15 M-4</td>
<td></td>
<td>25</td>
<td>18 11</td>
<td>C</td>
<td>Yes</td>
<td>—</td>
<td>1300</td>
</tr>
<tr>
<td>16 CM4</td>
<td></td>
<td>25</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1400</td>
</tr>
<tr>
<td>17 PM4</td>
<td>13</td>
<td>25</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1400</td>
</tr>
<tr>
<td>18 M6</td>
<td></td>
<td>25</td>
<td>12 C</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>1800</td>
</tr>
</tbody>
</table>
as a type R and referred to as Radio Magnavox. The R stands for Radio. Some other letter designations useful to understanding Magnavox equipment are:

C - Cabinet
M - Magnetic
P - Phono
LS - Loud Speaker
MV - Music & Voice

Electrodynamic horn speakers were of four types: R1, R2, R3, and R4. Types R2 and R3 were made in several different models. The type R3 Model B was made in two different styles. The magnetic horn speakers were designated by the letter M, and five types were produced.

In 1921 Magnavox developed a crystalline finish that reduced the “tinny” sound of smooth painted metals. Starting in 1922 metal horns were given this finish, often referred to as “wrinkle” or “crinkle” by collectors.

About the Table: Table dimensions and resistance numbers are measured values by the authors of one or more units. There may be value variations in these same types and models. Missing data represents unmeasured values. Early dates of advertising represent “best” search of literature.

Pictures of R2-A, R2-B, R2-C, their bases, R3-B (late) and M20 are shown in this article.

Magnavox speakers introduced after 1925 were of the cone type. Interestingly, the first electrodynamic cone speakers were also designated by the letter R, one of which was designated type R-4.

The early R1 and R2 systems were identical except for the horn sizes. See Schematic wiring diagram of the Magnavox Radio Telemegaphone, Types R-1 and R-2. First versions of the R1 and R2 included a headset attached to a listening tube that plugged into the base in place of the horn. Later versions did not offer this.

Early R2 22” dia. horns were offered in wood or spun copper. A 1921-1922 Telmaco catalogue lists the type R4, that looks identical to the type R3 Model B which was introduced at about the same time. The authors speculate that production of the R4 was stopped immediately and reissued as the R3 Model B.

Reference items to Table
1. Base unit only (no xformer, no wood base)
2. Consists of LS-2, T-jnet, for horn and ear tube, no knife sw.
4. Front nameplate is LS-2A, some horns have separate R-2 tag on side but others not, knife sw.
5. Knife sw. on base
6. Pull sw. plus vol. cont. on side, crystalline, two colors - brown & black, no knife sw.
7. -
8. Stained base board with beveled edges, two horn styles (two pieces & three piece welded)
9. Black painted base with round edges
10. P.P. sw. on side, 2 terms. on each end
11. Field adj. in front, 4 terms. on rear
12. -
13. 2 colors: Gold & Black
14. 2 colors: Gold & Black, non metallic bell
15. -
16. TRF 50 rev. driver
17. Phone driver
18. Non Metallic Bell
19. Cabinet Model

[Cont. on next page]
IDENTIFYING MAGNAVOX HORN SPEAKERS

M-20 out of cabinet

R2-A

R2-B

R2-C

R3-B
FROM HEADQUARTERS

Close-Up

**ZR-1 or ZRS-4?**

The cover of the September OTB had a picture of a zeppelin's radio cabin... and there appeared to be some question as to its identity. First Bruce Boyd (W3QA), then Dick Jordan (W4UM) and others found the answer... on page 807 of Mary Texana Loomis book: "Radio Theory and Operating".

It is the U.S.S. Shenandoah or ZR-1 which was destroyed over Ava, Ohio in 1925. All of the equipment was damaged in the crash except one receiver. The AWA Museum has similar equipment dated 1923 thru 1925, a gift from the Naval Research Laboratories.

While on the subject of zeppelins, a letter from Tom Briggs gives another version as to the cause of the Hindenburg crash. If you recall, a member of the crew supposedly caused the disaster for insurance purposes.

Tom tells of a report given by a Dr. Steutzer who states the Hindenburg's outer skin was protected by a varnish type lacquer. Normally, it was formulated to have a conductive property so that any electrical charges could be leaked off to ground.

Just prior to the last ill-fated trip, it was given a fresh coat of lacquer. A tragic error occurred -- the lacquer was NOT made conductive. Hence, there was a thin insulating film over the entire dirigible.

On its surface an immense electrical charge built up during the approach to Lakehurst. When the metal-cored landing line, or the wet manila lines, touched ground, a spark discharge occurred up inside the housing and hydrogen vapors ignited setting off the chain reaction and the loss of the aircraft.

It is puzzling why this account was never published. Possibly it was the desire of the Nazi Government to remain blameless... or... suppression had something to do with insurance claims... ? Take your pick.

(Cont. on page 14)
CeCo was one of many radio-tube makers that sprang up like mushrooms into the late 1920s, but unlike most, it did not originate in Newark. Instead, it was the creation of three Providence, Rhode Island, men who had formerly manufactured electric lamps: George Coby, William Cepek, and Ely Egnatoff. Coby, the president, may have financed the venture; Cepek and Egnatoff had recently emigrated from Poland. The C. E. Manufacturing Company took its name from these three partners.

Their first ad was in the August 1925 Radio News, for a series of three standard tubes using letter designations instead of the usual numbers; later their line was expanded to include many more types. A was a 201A, B a 99, C a 99 in a large UV base, D a rectifier (D-G, a gaseous rectifier), E a 20, F a 12, G a 40, H an 01A detector, J a 71, K an 01A for RF use, M a 26, N a 27, and so on until the letters were dropped.

In addition to the standard types, CeCo also made a number of unusual tubes; they were among the first to make an AC version of the 22 screen-grid tetrode, before RCA announced their 24. In January 1930 they made the first RF pentode, an unusual design with a "space-charge" grid between the cathode and control grid of a normal 24A (not a suppressor grid as in most pentodes). Later they made still more varieties of pentodes, which saw very limited use in manufactured radios, possibly only in the Norden-Hauck DX-5 from mid-1930.

The three partners, who at first knew nothing about tube manufacture, hired Ernest Kauer as their chief engineer. Kauer made excellent tubes, and CeCo's reputation and sales grew rapidly. Their New England sales representative is reputed to have had a fabulous expense account, which may have had something to do with their success also.

In June 1928, Kauer bought out the three partners, changing the company name to CeCo Manufacturing Company, and expanded production still more. By mid-1930 CeCo had made 10 million tubes, was producing them at a rate of 4 million per year, and had a 3½-acre plant employing 1000 workers.

Meanwhile, by the terms of the sales agreement, the three Polish partners were not to make vacuum tubes for at least one year. They moved across the river to Pawtucket and manufactured Triad pens, which were triangular and wouldn't roll off the desk.

Apparently the lure of radio was too strong, for in June 1929 Triad announced a new line of standard radio tubes, in distinctive triangular cartons. These were immediately successful, and Triad sold a million dollars' worth of them in the first year. Triad remained in business at least until 1938.
RARE D-G RECTIFIER

By 1932 Ernie Kauer was restless; he had become something of a big wheel in Providence and was anxious to enter politics. He sold CeCo to Abraham Pletman, founder of Lafayette Radio, and Leonard Welling, holder of the lucrative Majestic franchise in New York.

The depression had reduced business dramatically, and the two new owners decided to move the plant to France, where conditions were better. As foreigners were not allowed to own French manufacturing companies, they put the CeCo company in the name of their French lawyer, who promptly ran up the Jolly Roger, booted out Pletman and Welling, and took the entire company for his own.

Pletman spent the next nine years in an asylum recovering from a mental breakdown, but eventually returned to reclaim Lafayette and to run it successfully until his death in 1973.

References: Interviews with James Miller, an interview with a CeCo engineer by Lauren Pekham, and ads in Radio Retailing, Radio News, and Electronics.

"URGE TO COLLECT"

Earlier this year the Royal Bank of Canada's monthly newsletter was devoted to exploring the urge to collect, and in it the EDITOR points out that collecting is a great social leveller and, as such, is a handy tonic to self esteem:

"An insignificant man in ordinary affairs may be the king of collectors in a certain class of object, commanding the respect of all who dabble in it. One of the joys of collecting in an organized fashion is in associating with like-minded people. Lifelong friendships can spring from a common interest in things like matchbooks or dolls."

Collections can sometimes run off in odd directions. We've heard of a man who has a collection of old oil rags, the kind garages use; he has thousands of labeled examples, many picked up along the road, and he won't let his wife (or her washing machine) anywhere near them. One of the directors of the London office of Sotheby Parket Bernet owns an extensive array of paintings — all of them certifiable fakes.

Whatever your collectible may be, much of its value lies in its ability to focus your organizing skills. As that preeminent collector, Wallace Nutting, pointed out, "A collector is not a queer animal to be stared at with wonder or ridicule... The brain of an ordinary individual is developed and enriched by collecting."
WHAT IS A "FRITTER"?

Ray Meyers, W6MLZ (OOTA) forwarded a letter from a German amateur (DL9AF) who was trying to build an original Marconi receiver and transmitter. He sent a circuit found in his local library and was baffled on how to build a "fritter". Checking the circuit I found the "fritter" was the coherer. Another stumbling block was the "inductor" in the transmitter. This turned out to be a simple vibrator-type spark coil.

BOOKS — DOCUMENTARIES

Two books will be available sometime in the future which should be of interest to radio historians. One is the history of commercial receivers and their manufacturers with emphasis on equipment made in the 30's. To be written by H. L. Chadbourne, it will undoubtedly be the bible for the commercial/amateur receiver collector. Chad has spent several years digging information on companies such as RME, Sargent-Rayment and others.

The other book will be a continuation of Tyne's famous "Saga of the Vacuum Tube". Bro. Pat, W2HK, will take over where Jerry left off and take us from about 1930 to the end of the vacuum tube era. It will be another thoroughly researched documentary with numerous charts and vital information for the tube historian.

HEY — WE'RE WEALTHY!

A letter from "down under" wanted me to verify a statement made on a N.Z. television newscast. Quote letter: "--- that people in America were buying up all kinds of antique articles in a bid to stave off inflation. Prices were stated to be very high and radios of the 1920 decade were suggested to be fetching up to $20,000 each (!). Can you please verify this as I have a 1925 radio I'd like to have valued."

He goes on to say it is a 4-tube TRF set with a Brown horn speaker, etc. Honest... it is true. I didn't have the heart to tell him the truth... so never replied. The letter is in my file.

PRESERVATION COMMITTEE NAMED

Effective August 28, 1980, I have under AWA's Certification of Incorporation (Article III (B)) appointed a Committee to establish guidelines for types and quantities of material to be included in the AWA collection within limits of the storage and display capacities of the Association. The Committee will approve all accessions to the collection, verify ownership and inventory, approve loan of equipment and assist the curator in disposing duplicate and surplus items. The committee will consist of Richard Fish and Dexter Deely and the curator.

Charles Breitsford, President

NFWA/AWA SUMMER MEET

What many considered an unique experience occurred last August when members in Western New York had a meeting aboard the USS LITTLE ROCK, a guided-missile carrier at the Buffalo Naval Pier.

This huge naval vessel is over 600 feet long and at one time carried a complement of 1200 men. It was de-commissioned a few years ago and is now a public museum.

The radio meeting was held in the mess hall following a catered luncheon. The theme: Crosley receivers which included a contest and a well prepared slide talk by John Wolkowicz. The Crosley Gear Contest brought out some choice Crosley products that would have made Powell proud.

The final touch to the occasion was a wine and cheese party at the nearby Erie Savings Bank where NFWA had a radio exhibit. I had heard about this display but had never seen it.

The group had a large and varied exhibit showing all kinds of early broadcast receivers and associated equipment tastefully arranged with complete identification. A most commendable project.

-- B.K

AWA BOOTH AT CONVENTIONS

Warren Green, W7JY and committee did a bang-up job at the ARRL National in Seattle where large crowds gathered to see their display... and the same occurred at Des Moines reports Gary Liljegren, W0SH.. photos show a wide range of early equipment...fb OMs!
RCA TUBES IN AUSTRALIA

Once a tube collector...always a collector. I donated my entire collection to the AWA Museum years ago but I still like to find new ones. I had a pleasant surprise recently when Fin Stewart sent 50 tubes from Australia. Although most were of common 1930 variety, about 10 were dead-ringers for our American counterparts. There were Types 42 and 58 Australian Radiotrons, 47 and 6D6 by Philips (made in Holland) and a 6D6 by AWA (Australia). I placed the tubes next to our American counterparts and couldn't tell the difference except by markings.

This brings to mind the transmitting tubes removed from the Japanese WW2 battleship "Nagato" which are in the Museum. There are several 852's and 860's -- exact replicas of RCA types except for Japanese markings. The tubes were copied and made in Japan presumably in the late 30's.

HOT FEDERAL RECEIVER

Watch out for a "hot" Federal "59" which may show up somewhere in Pennsylvania. If you encounter a suspicious set...notify AWA or the Pennsylvania State Police at Ebensburg, Penna.

WANT ADS

Bob Allen says he counted 15 buy/sell ads for old time equipment in the largest ham magazine. (The interest appears to be growing.) He pointed out several were offering "top dollar" for old gear and wondered how they ALL can offer "top dollar" for the same items?

Anyone falling for that old pitch is somewhat naive. He reminded me of an incident which occurred two years ago where a "top dollar" dealer offered X dollars for a collection. A higher counter offer was made so he increased his "top dollar" value. In rapid succession, two other higher bids came in, leaving our "top dollar" man at the bottom. He quit. They called his bluff.

On the subject of "want ads", Bob says he is thinking of publishing a Want Ad sheet. He says he will have first crack at all ads coming in...and can place all kinds of ads in his publication without cost. How can he miss?

OTBs WORTH $211

A complete set of AWA "Old Timers Bulletins" in file boxes was offered for sale in the June OTB to the highest bidder with proceeds going to the Museum Fund. The 82 copies were sold for $211. (Including shipping) which averages $2.60 per copy....but like QSTs...it is the early ones which have great value.

KENNEDY DIALS

I've yet to see a Kennedy 110 without tarnished dials. For some reason the silver-satin finish just didn't hold up. Roland Maison volunteered to re-finish all dials on the Museum receiver with excellent results...just like new. Take a look at the AWA 110 next time you're in the Museum.

ANTIQUE SALES

I've just been reading a collector's publication in which the editor discusses current trends in collecting. It appears the recession has cut into the "middle-class" collector (the average person with modest income and interest)...he is just not buying the way he did a year or two ago. The beginner is still buying an inexpensive item or two now and then.

He points out, however, big-time dealers/collectors have not lessened their interest and are investing heavily in all types of antiques. He was making reference primarily to such collectibles as antique furniture, art, glass, etc. I am inclined to think the same holds true for historical radio items.

He predicts an all-time high for an antique sale may occur sometime this month (December) when Leonardo da Vinci's notebook will be offered for sale at Christie's London auction house. He believes the slim 36-page 16th century notebook in Leonardo's handwriting (and illustrations) will sell for $7 million. The current auction record is a work of art which sold for $6.4 million in May of this year. -- B.K.
The AWA Museum is the recipient of what is believed to be the world’s first portable television camera. The donor, Otto Schade, reviewed this historical artifact in the October, 1940, issue of I.R.E. Proceedings. The author was born in Germany in 1903 and came to the United States in 1926. In time he joined the RCA Tube Department at Harrison, New Jersey, where he remained until his retirement in 1968.

Although a pioneer in television, Dr. Schade also worked in other fields including the development of the Nuvisior tube. He is the author of numerous technical articles and the recipient of many awards. The Association is indeed fortunate to have acquired this historical piece of equipment.

My interest in television began when I was a Tube Design engineer in the Radiotron Division of RCA at Harrison, New Jersey. I was working on beam power tubes (Type 42) at the time (1938) which were used in the TV System at Camden, New Jersey. I visited the Camden TV-Lab in the summer of 1938 to see a TV System in operation.

I was tremendously impressed. From discussions with circuit engineers I realized that many circuits were not fully understood and that their performance could at times not be duplicated. It seemed to me, if I wanted to really understand the TV process, I would have to build a complete system.

I gave this idea a lot of thought and came to the conclusion that such a system could be much smaller than that at Camden. The Iconoscope should be a smaller tube and the electrical system should use smaller tubes and more efficient circuits. (I had just completed a Monoscope video signal generator with 10 megacycle bandwidth (August 1938)).

I discussed a smaller Iconoscope with Bill Painter of the TV Division at Harrison, and he promised to build me a 4½" Iconoscope. This was a sort of personal project because RCA Camden was not interested in the smaller tube and I was not permitted to spend company time on building a TV system.

In 1938 I started at home to design and build the small camera, which included a smaller deflection yoke, transformers and coils for the scanning circuits and video amplifiers using acorn tubes.

I was well along when I was called to a meeting in the chief engineer’s office where I was smilingly informed that I could work full time on the small TV system, provided that it would be battery operated and truly portable. That was a tall order, but I agreed of course to the challenge. (The existing mobile system was two 10 ton trucks.)

Then came many questions: How would I generate the high voltage (1 to 1.5 Kv) for the Iconoscope and a small monitor kinescope was a major concern. I decided to generate the high voltage with rf-oscillators which was patented in 1939. The two high voltage supplies are located in the large coil-shield cans in the back of the control unit. A large number of the tubes are acorn tubes which can be seen in the photos of the video circuitry in the bottom of the camera and the video amplifier in the back of the control unit. (See photo)

The system was first demonstrated to the management of the Radiotron Division at
Harrison, New Jersey, in my car, by driving around Harrison, holding the camera to look out the window, and observing the TV picture from the back seat on the small monitor in the control unit.

The system consisted of 3 parts; 1) the Iconoscope camera (containing the preamplifier); 2) the control unit containing the main amplifier, scanning circuits, shaping and shading circuits, the 3-inch monitor and a synch-generator; and 3) a battery box holding a small motorcycle 6v. Battery for the iconoscope heater (insulated for 1000v.) a larger 6v. battery for the rest of the tube heaters, and several “B”-batteries (total weight about 75 lb.). The small picture on the monitor kinescope is viewed through a magnifying glass (built in). For operation in the Lab, I designed a power supply, operating from the 60 cycle house current.

After saving these components for 40 years, I am donating them to the AWA Museum. They are: The camera, for which I saved 2 Iconoscopes and 1 Monoscope; the control unit with a spare monitor 3-inch kinescope; and the 60 cycle power supply.

The condition of the electrical wiring is poor. The rubber on the cables is cracked, and I am sure the electrolytic capacitors are all dried up. In addition, the connector cables got lost, so the system is inoperable. Visitors to the AWA Museum will notice that the leather bellows of the camera have disintegrated and the lens fitting are missing. I am also donating the engineering notebook which contains my original notes and circuits as well as several photographs of the equipment.

I have never lost my interest in television systems and was never satisfied with a performance until it could do at least as well as good photography. I have designed and built high definition systems for the Air Force Avionics Laboratory which gave 10,000 lines resolution (100 cy./mm) in a 50 x 50 mm camera format.

World’s first portable television camera on tripod. Note 4 1/2" iconoscope tube and bellows at upper left. The camera is focused with a rack and pinion arrangement.

---

RCA TUBE PIONEERS

Dr. Otto Schade (holding first portable TV camera) and his friend and associate George Rose, vacuum tube pioneer. George is frequently called the "Father of the Modern Vacuum Tube" (Photo W2GK)
A new radio collector will find it difficult (and costly) to find early receivers of the 20’s. His next bet is to concentrate on AC receivers of the late 20’s and early mid 30’s. This excludes, of course, the later amateur receivers (National, Hammarlund, Hallicrafters, etc.) and the classics such as Scott, Silver-Marshall, etc.

If you lack room, try for the art-deco wooden table models – some are beauties! Then of course, the novelty radios. They are hard to find and go for a goodly sum. Conventional table models are not much in demand except Philco cathedrals and A-K sets. Neither are most consoles except the “highboys”.

Pictured are Bosch, Philco and Stewart-Warner models of the early AC period. Note they all have legs and are known as “highboys” ... the taller the better. Later AC models can be easily recognized since they “sat on the floor”.

Highboys with two doors are the most highly prized. These graceful sets were frequently beautiful pieces of furniture, and sometimes the cabinet was worth more than the set!

Unfortunately, most were discarded or made into liquor cabinets. Happy hunting!

---

**SOUTHERN CALIFORNIA**

Are you a collector and live in Southern California? If so, give thought to joining the Southern California Antique Radio Society. They print a fine publication and have regular “meets” of interest to the collector and radio historian. Write for information:

Alan Smith, 6368 Charing St.
San Diego, Calif. 92117

**SAGA OF VACUUM TUBE**

By Gerald F. J. Tyne

The “Saga” (the bible for the vacuum tube historian and collector) and other historical books (Vintage Radio) plus reprints, may be obtained from Vestal Press. See page 35, Dec., 1970 OTB for information about their large catalog ($2. refund).
With hardly an exception, every old time radio man has at one time or another used Kester radio solder. The name is synonymous with home radio construction.

The company was founded in 1899 by Charles Kester. The key to the company's longevity, however, goes to a Jesse Kester, who invented the core solder, the first technological breakthrough in several thousand years.

The most dominant figure in Kester's history was Frank C. Engelhart, who gained control of the company in the 1920's and was sole owner until selling it to Litton Industries in 1967. (Mr. Engelhart died in the early 70's.)

The Wrightwood Avenue, Chicago, address has been the company headquarters for the past 50 years; additional facilities are in Canada, West Germany and Singapore as well as five plants in the United States.

When the company was founded in 1899, 95 percent of its business was with canning factories, the solder being used for sealing cans. This lucrative field collapsed in 1915 when a revolutionary change made solder unnecessary.

Today the company is one of, if not, the leading, solder manufacturing company in the world, manufacturing a complete line of rosin-core, acid-core and solid wire solder as well as bar types.

Congratulations to Kester Solder — a name that is still with us, for it brings back fond memories of wiring up that old regenerative of TRF set of yesteryear!

(Thanks to Mr. L. D. Kramer, Kester's President, for providing the company's early history.)

**Solders by Kester**

<table>
<thead>
<tr>
<th>TYPE OF SOLDER</th>
<th>KESTER PART NO.</th>
<th>WEIGHT For Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACID CORE</td>
<td>82-5000-0002</td>
<td>20 lbs.</td>
</tr>
<tr>
<td>ROSIN CORE</td>
<td>82-5000-0003</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>TV/RADIO/STEREO</td>
<td>82-5000-0006</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>SILVER</td>
<td>82-5000-0005</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>SOLID WIRE</td>
<td>82-5000-0008</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>ALUMINUM REPAIR</td>
<td>82-5000-0006</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>STAINLESS STEEL</td>
<td>82-5000-0010</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>FLO-RITE PASTE</td>
<td>82-5000-0001</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>SOLDERING PASTE FLUX</td>
<td>82-5000-0011</td>
<td>14 lbs.</td>
</tr>
</tbody>
</table>

**OT TRANSMITTING CONTEST**

Saturday Jan. 17
Sunday Jan. 18
Wednesday Jan. 21
Thursday Jan. 22

**DON'T FORGET!**

Sunday AWA Net now at 12 Noon
EARLY AMATEUR RADIO
By Bill Halstead

THE STATION AT CAMP WALLKILL

In 1922 I was counselor at a boys camp north of Poughkeepsie, N.Y., named "Wallkill". It was owned by a wealthy man who wanted the best.

Happily, his interest in radio enabled me to purchase the latest in amateur equipment which is seen in the picture.

The camp's call letters were 2COW. This was of course before the amateur had a 'W' prefix and very possibly the call letters had some relation to the camp's name: 'C' for camp and 'W' for Wallkill.

It has been many years since I have tried to identify the equipment but one can see me holding a 3B carbon mike while operating a DeForest radiophone transmitter. Directly behind me are several receivers including a Grebe.

To my left is a Kennedy 110 with amplifier and W.E. horn speaker. A Magnavox horn is in the corner. Under the bench is the motor-generator set and at far right another transmitter. Operation at that time was somewhere near 200 meters.

Two years later while a student at Haverford College in Philadelphia, I helped organize a radio club. We were issued the amateur call 3BVM and a license for the student-operated broadcast station WABQ.

A big event during these years was a chess game via amateur radio between Haverford and Oxford University in England.

The well known British amateur, Gerald Marcuse, 2NM, at Caterham, Surrey, provided the station for the Oxford students, and Irving Smith, one of our members, allowed us to use his high-power station 3OT.

The games took place on Dec. 8, 1924, and lasted 5 1/2 hours. By this time we were operating on shortwave.

(Cont. on next page)
The remarkable picture of the players was sent to me by Winthrop Leeds, ex-3B1Z, IEEE Lamme Medal recipient and a Westinghouse retiree.

Winthrop is the first player at right and I am standing behind him. Standing opposite me with earphones, at left, is Ed Patterson, the operator.

It is believed to have been the first trans-Atlantic chess game and may have set a record.

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**STATION ZL1VLA**

Earlier this year amateurs may have worked a station signing the call ZL1VLA. The station was commemorating the 50th Anniversary (1930-1980) of the closing of pioneer commercial station VLA located at Awanui, New Zealand.

Built by Australian Wireless Co. For Telefunken of Germany, it operated on 800 and 2000 meters. The antenna was of the early umbrella type with 400 ft. center pole and radials. [W6CG]
WHAT IS an time Xmtr or Rcvr? See the description on page 24 of the December 1978 Old Timers Bulletin.

OBJECTIVE: Qso the greatest number of AWA members. When calling, use: "AWA AWA AWA de W2AN " as example. On contact, exchange year of equipment, such as "TX 36" for 1936 xmtr and "RX 30" for a 1930 rcvr. "Mod" for modern equipment.

DATES: Saturday Jan. 17, 2300 Z to Sunday Jan. 18, 2300 Z.
Wednesday Jan. 21 2300 Z to Thursday Jan. 22, 2300 Z.

FREQUENCIES: 3580 to 3600 kh., 7040 to 7050 kh. and 14070 to 14080 kh. plus or minus Qrm. Concentrate on 20 and 40 meter qso's on the hour. Stay off WIAX!

SCORING POINTS:
1 for qso with 1940 or later station.
2 " " 1939 or earlier TX or RX
3 " " 1939 " both TX/RX

RULES: A station will be scored only once on each band. No cross-band contacts. Non-member contacts will not count. Stations NOT submitting logs will not count.

POINTS MULTIPLIERS:
2 for stn using 1939 or earlier TX
2 for stn using 1939 or earlier RX
4 for stn using 1939 or earlier Tx/Rx
5 for stn using 1939 or earlier Tx/Rx where the Tx is 20 watts or less and the Rx is a simple 2 or 3 tube regenerative receiver.

Score sheets will be sent to all former participants in early January. Newcomers: write W2BGN for sheets.

AWA NET LIST
An up-to-date list of all AWA Net Members is now available. The list includes both CW & SSB participants and gives call, handle and QTH. Send SASE to:

Ken Gardner
42 Oakdale Ave., So.
New Hartford, N.Y. 13413

1981 ARRL NATIONAL CONVENTION
Al Canning (W6HAK) writes that he may be Chairman of the 1981 ARRL National Convention to be held in Orlando, Florida next year. With Al in the driver's seat, AWA is sure to have another fine historical exhibit. More on this later.

HISTORIC BRITISH CONDENSER
The Association's was the recent recipient of a historic Marconi fixed condenser (.001 mfd.) from the British Vintage Wireless Society. The condenser is from a famous broadcast station built at Brookman's Park (England) in 1929 which remained in service until 1978. It was unique since it provided dual services simultaneously.

Members of BVWS had the good fortune of being given components of the transmitter as it was dismantled. A wooden encased Marconi condenser mounted on a wooden block (with appropriate engraved plates) was given to AWA by BVWS representative Anthony Constable on his recent visit.
Although Browning-Drape receivers are available to collectors, I wanted to build my own. For my project, I selected the set described by G. H. Browning titled "Selective High-Mu Receiver" which appeared in "Broadcast" magazine, December, 1924.

This was a very popular circuit in the mid-twenties, and rightly so as I found it extremely selective across the entire broadcast band. The 3-tuber as shown is great for earphones and drives a loudspeaker on strong local stations. Adding an additional stage of audio would supply all the power one would ever need.

The heart of the set is the two units BD-1 and BD-2 which were sold in kit form by National for $22.00. The only catch was the price which may have shut out many an avid home-builder.

Other than for one or two later substitutes, all parts are of the mid-20's as originally listed. Since it is of experimental nature, I eliminated a panel and mounted the components on a board.

Note the use of a 199 tube as rf amplifier.

Some changes from the original circuit: a 6V-199 Amperite is used in place of a rheostat in the 1st stage. A rf choke was placed in series with the tickler coil and primary of AFT. And lastly, the .002 by-pass condenser is now grounded through A- instead of 22 1/2v. These changes are not shown in the schematic.

A special thanks to Warren Green, W7JY and John Caperton for their assistance in the project.

--- Floyd Lyons, San Francisco

**Parts that I used**

**BD-1 Kit**
- National ant. inductance coil (L3)
- National DX condenser .0005 mfd.
- 4" Velvet Vernier dial

**BD-2 Kit**
- National Regenaformer (L1, L2)
- National DX condenser .00035 mfd.
- 4" Velvet Vernier dial
- 1 UV-99 (199) and 2 UX-201A tubes,
- 2 Fed. #16 sockets, 1 Benjamin 01-A cushioned type.

1 tube adapter (for UV-99 to 01-A shell)
G.R. AFT #285-D (1 to 2.7 ratio)
2 rheostats (G.R.) Type 301, 30 ohms.
1 Amperite 6V-199 and holder
1 RF choke (Browning-Drape)
1 2 meg. gridleak and holder
1 Dubilier .0025 mfd. grid condenser
1 push-pull switch (Culler-Hammer)
1 phone jack (Open-circuit) Federal
1 Neutralizing condenser (NC) Millen #15003 (1.8 to 8.5 mmm.)
7 Eby binding posts & 2 mounting strips
1 wooden baseboard
COLLECTING 201-A TUBES

by Bro. Patrick Dowd, WEGK

The 201/201A is perhaps the most popular, most duplicated and most imitated vacuum tube ever made. This tube, and versions thereof, are known to have been manufactured by nearly 100 companies. It came upon the scene with the birth of broadcasting and grew up with the new industry.

Originally developed and manufactered by G.E. Co., it was christened the UV-201 and released by RCA in December of 1920 under the 'Radiotron' label (UV-201) for distribution in the East and under 'Cunningham' label (C-301) for distribution in the West.

It underwent many structural and electrical improvements over the years. In 1923, a thoriated-tungsten filament was added and it became known as the UV-201-A (C-301-A*).

In 1925, with the addition of a new long-pin composition base, it became the UX-201-A (CX-301-A). In the early 30's it was adapted to the modern-dome bulb and its name shortened to '01A. It continued to be manufactured through the 30's for replacement purposes only.

Quick reference to:

RECENT ORIGINAL ARTICLES of interest to radio historians

"New York Times 2UO/WHD"
'73' magazine, Feb. 1980
"Burnhams & Co." (Burndept)
B. V. W.S., Mar. 1980
"How to make Basketweave Coils"
C. H. R. S., Mar. 1980
"The Myers Tube", CHRS, Mar. 1980
"The Kennedy 110", SCARS, Apr. 1980
"QRS Tubes" A.R.C.A. Spring, 1980
"Freshman Radio" MAARC, Mar. 1980
"Novelty Radios" BVWS, Mar. 1980
"The Hallicrafter Receiver"
'Ham Radio'magazine, Apr. 1980
"History of Ham Radio" '73', Spring '80
"Arcturus Tubes", SCARS, July 1980
"The Harko Senior" NFWA, Vol. 2 #3

"Television History"
'Radio Electronics' June, 1980
"The ACE Receiver", NFWA, Vol. 2 #4
"A 1933 Ham Station"
"Ham Horizons" mag. Aug. 1980
"German WW2 Equipment"
'CQ' magazine, Aug. 1980
"Listing of British Wireless Magazines"
B. V. W. S. Sept. 1980

"Testing Paper Capacitors"
'The Reproducer' Sept. 1980
"History of Postal Telegraph"
MTC 'Dots & Dashes', Vol. 8, #3
"Jack Binns Biography"
MTC 'Dots & Dashes', Vol. 8, #3
"History of Station NAA"
SOWP "Sparks Journal" Vol. 3, #3

(Note: An index of all OTB material will appear in a future issue.)
BACKS FOR AC/DC RADIO

Most AC/DC midget radios of the thirties need new back pieces for complete restoration, among purists, that is. Otherwise they look naked and unattractive from the rear.

Here's an easy way out. Use art board, available in various thicknesses from art supply stores. This stock cuts easily and quickly to size with a steel straight-edge and a utility knife, such as Radio Shack #64-1852.

For ventilation, several 3/4 or 1 inch holes will be needed and can be cut professionally with a Greenlee #730 Round Hole Chassis Punch, available in many sizes from Burstein-Applebee and other supply houses.

Drill mounting holes as required and glue small washers around these holes to prevent fraying of the art board when installing or removing for service. The power cord can be put through one of the ventilation holes, or another cutout, as necessary.

The new back piece should be touched up with a Krylon spray to match color of the art board or the radio.

As a finishing touch, a binding post or Fahnestock clip can be mounted on the new back for a neat antenna connection.

- Gordon Eklund

SHINY DIALS

Old bakelite dials and panels shine like new when lightly sprayed with two coats of clear enamel. Be sure to clean surface thoroughly and be sure there is no dust at time of spraying. ... (Bill Taylor)

CORRODED BATTERY CONNECTORS

Looking for a good, safe, easy-to-use cleaner for corroded connectors? (Yes, people still use batteries.) Try the household cleaner “SHOUT.” Just spray it on - lots of it - rub with an old tooth brush and then wipe off. It’s also a good general purpose cleaner, though smelly.... (Albert Pratt)

CONDENSER SHORTS IN OLD AC RECEIVERS

In trying to find a shorted filter (or by-pass) condenser, one may save the time of unsoldering each suspected condenser and checking this way. Use an ohmmeter with range less than the resistance of the shunt in the circuit. AO-10 ohm range will show infinite resistance for good capacitors and zero resistance for shorted capacitors because the shunt resistors have a resistance more than 10 ohms D.C.

HIGH VOLTAGE TESLA COIL

Members interested in purchasing a commercially made Tesla coil are advised to contact UHV Division of Professional Sound Systems. They manufacture high quality coils which produce discharges up to 15 feet in length! An interesting feature of their equipment is the use of a quench gap. Five models are available with largest rated at 20 KVA input and 5 megavolt output coil. Write William Wysock, UHV Division, Professional Sound Systems, 2527 Treelane Ave., Monrovia, Calif. 91016

MORE ON ALEXANDERSON STATION

Thorn Mayes' excellent article in the last OTB about the station using an Alexanderson alternator mentions a possible like station in Poland. We now know the answer.

There was such a longwave station in operation during the early days of WW2. The installation was taken over by the Germans during their invasion of the country and used to transmit to German submarines. On their retreat from the Russians, they dynamited the station leaving but a pile of rubble.
OLD TYME HAM ADS

OLD TYME ADS ARE FREE to members interested in collecting and restoring historical equipment as a hobby. They are not to be abused.

RULES FOR ADS:
1. All must be written on separate sheet of paper—not part of letter. Send SASE for acknowledgment.
2. Material must be over 25 years old and related to radio or electricity.
3. Give full address and Zip.
4. AWA will not print repetitious ads or ones indicating regular sale for profit.
5. The Association is NOT responsible for any transaction.
6. AWA retains the right to reject ads, and it reserves the right to refuse any ad of over 6 lines, including address.
7. Only ONE ad per issue per member.
8. Deadline for ads is 6 weeks prior to mailing date:
   March issue -- JAN. 16
   June issue -- APR. 16
   Sept. issue -- JULY 15
   Dec. issue -- OCT. 15

Important! To insure delivery, out-of-state mail should be sent one week prior to dates noted above.

Mail all ads to:
RICHARD RANELEY
17 S. WYMAN ST.
AUBURN, N.Y. 13021

WANTED

--1936 Hallicrafters Super Skyraider, manual and copy, or any other tech info. Also any auto radio literature, particularly Color-Tone, Sans AR series books. Gary A. Micanek, 225 Henry Ave., Manchester, N.H. 03101

--Ariola Sr., Radiola III, IIIA, and 1100, any tube sets, AK, breadboards and parts. Trade/set. AK20, Radiola 18 & 100A spkr. Freshman Masterpiece, boxed RCA UX200, AK-56C. Rick Mast, 3508 Willow Dr., Ocean, N.J. 07712. Tel. (201) 493-4960

--Info on any Philco projection television. Price lists, schematics, parts lists or parts. David S. Spangler, RFD3, York, PA 17402

--AK-80 and 84, Cathedrals. Charles Green, 1157 S. Webb Rd., #1207, Wichita, KS 67207. Tel. (316) 685-4148

--Riders manuals. Also AK, Philco, and others. Please state vol. available, condition and price. B.J. Johnston, 2980, 1774 S. Lincoln Rd. Academic. Bruce, 36301. Tel. 963-4740

--AK console chassis models 72-74 or 76. Working or not. John Buyukis, 178 Eastside Drive, Wellingford, CT 06992

--Beofast BN3, BV3A, BV7, D-01A & DR. Also need Weil's 11's and UV 199's. J. Davis, 1911A 21st St., Lubbock, TX 79111. Tel. (806) 744-5379

--1930 Model Scott Philharmonic AE-87 pair, H.F. speakers for 1937 Philharmonic. Peter Best, Box 59, Bridgewater Corners, VT 05603.

--Antique microphones from the early radio days of the 20's & 30's. For display use, not necessarily to have operational. Geo. Buz Buckenberger, 1214 Norwood Parkway, Cincinnati, OH 45210

--Drum dial for Philco Model 666, H. Davis, 2410 N. Market St., Dayton, OH 45413

--Audio gain knob, 96 and 20 meter banded tuning cells for prewar HRO. AFI and filament control knob for Kennedy two stage amp. Dale L. Martin, 308 153rd Ave. S.E., Bellevue, WA 98007


--W-9-A or 9-B heads or repair 2-A, pre-1937 music on 12" and 16" radio transcriptions. Trade or sell. 1924 Freshman and AK36 radio. W.C. Love, 5008 Northumberland, Pittsburg, PA 15217

--born reproducers, all types, from AK to Stromberg-Carlson. BASE to C.G. Goldich, 9584 Bennett St., W. Havenver, NY 10993

--escutcheon plates for Radiola 16 front panel switch & knob for Majestic Model 7 Hi-boy drum dial. 2 1/2 in. wide, by 5 in high. Ross Smith, 29 S. 14th Ave., Elkhart, IN 46514

--German radios and tubes of all kinds for our radio and television museum. Rundfunk und Fernseh Museum, Mehrasstrasse 8, 6500 Frankornsheim, Germany

--Copy instruction card for Sterling Tweeter, early 20's tube tester, also want Marvel tube cube crystal receiver. For cash or trade 864/VDI1 adapter. Combination, Don White, 36 Masterton Rd., Bronxville, NY 10708

--Riders # 14 radio manual, early AK breadboard parts. James K. Miller, 2016 12th St., Austin, TX 78702 (210) 546-3631

--Remote tuning unit with cable for AK Model 666 auto radio. Forrest Baker, 1558 West Germanfield, Davenport, IA 52804

--Schematic and instructions for Philco Model 908, Code 123. Will gladly pay for postage and duplication costs. Bill Alvarez, 13067 E. Vernon Ave., Walnut, CA 91789


--Parts for AK-20 (large). Must be vg color and condition. Three turning dials and the H.F. switch box from the three tube model. D.C. Sumner, 39 Parkside Dr., Davis, CA 95616

--1935 6, Illinois RME Model 90-240 Radio Fix-All Amp. Pre-selector believed to have been made till 1946. Ennet G. Muggle, 663 Pine St., N.W., Natick, MA 01760


--Early National receivers, any condition. Also need SW-3 and TW-7 cells. F.R. Tesche, WHNCS, 135 Shorea Lane #12, Walnut Creek, CA 94596 (415) 943-1684

--ARRL Handbook, QST, CO73, HR, HR. State condition and price. E. Conley, 115 Intercept Ave., N. Charleston, SC 29405

--1950 momaur natural phone cartridges, also info. on coil parameters of same & manufacturers. Unshielded types preferred. Geoffrey Tilga, 128 Mios St., Rochester, NY 14620

--Original owners manual for Federal 110, also need Hallicrafters Super Skyraider, SX-16, SX-17, SX-28, SX-32 in excellent working cond. Jack Bacon, 375 Lakeview Rd., Medina, NY

--Info on original materials used by old radio and instrument manufacturers to fill dial and panel engravings. Believe Paragon used paraffin & white lead. Years are also helpful. Gary Belf, 117 Pine St., East Rochester, NY 14445

--DeForest 8-200 tube sockets, DeForest Wavenet, Crosley 50 panel, Moorhead tubes. Will buy or swap. Will Jenser, Box 96, Davenport, IA 52803. Tel. (319) 364-2462

--Large style cathedral such as Philco 90, 70, 240 or Atwater Kent types. Will purchase or would like to trade old-time tv shows in 16 mm. David L. Taylor, 108 Bass St., Tallahassee, Fla. 32301

26
WANTED

- early magnetic recording equipment made by Brush. Also Brush catalogs. Also Presto Magnetic Recorder $ 8. amp. Have antique radios to trade.

Gaylord Ewing, 980 Megwan Rd.,
Rochester, NY 14624

- Pre-Selector for National F87. Model FSK: single Type dial about single tube coil. Don Sheehan, 16 Arcadia Rd.,
Andover, Mass. 01810

- Clavoyard made radios and Sterling test equip. In original box. D.B. Schneider,
6848 Commonwealth Blvd., Parma Hts., Ohio 44130

- Western Electric 4-D superhet,
Kennedy 220 Recev., 521 amplifier. Al Good, 211
Brenda Lane, Columbia, MO 65201

- Four Western El. 100U tube
sockets, one W.E. 131A socket w/cushion mount. Inst. manual or Type dial, 16 freq. meter. Freshman Masterpiece type ant & rf coils.
Rodney Schrock, 402 Lincoln St.,
Springfield, PA 19066

- Two early 30's Philco chassis with speakers: model 52 (5 tubes) and model 80 (4 tubes, Philco Jr.). Complete Zenith console. model 100B, 25 tubes, chassis 2501, "Stratosphere." J. Smo-
ski, 2641 E. Cannon Dr.,
Phoenix, AZ 85026

- Early magnificent phonograph record player. RCA Victor "Electro" AE 45, Brunswick Pan-
toche, etc. R. Henselman, 805
S Indiana Ave., Auburn, Ind.
46701

- Carbon filament light bulbs, especially Christmas or figurine shapes. Also info on related items, other collectors. Jerry Etheredge, 1062 W. Madison St.,
Rockford, IL 61104

- Radio Sex, an old crystal set toy. Bobbie Kavanagh Ref.,
117 Pine St., E. Rochester, NY
14445

- Amateur call books prior to 1970. R. Arrowsmith, 3505
Woodburn Rd., Annandale, VA
22003

- Hornspeaker cords: AK model 40 TTD; Radio News Magazines; 53 other items I will buy or swap for. Rod Goodwin, Box 1054
Ponoke, Alberta, Canada TOC-270

- Data for testing tubes on Supreme Model 85 tube tester. Any info on tester would be appreciated. Tony R. Connable,
18 Ravensbourne Gardens,
Ealing, London SW3 18W, England

- Hallcrafter, recvr with "Stylfer" panel and or back-
back, model 8. "Airplane" style, any conex. Also HT-1,2,3,5,8 and others. Chuck Dachis,
WOODSG, 4500 Russell Drive, Apt. 14,
Austin, TX 78751

- 'Any Tele receiver, Pilot Super Wasp. Have sets to trade or cash. J. Barrows, W7ECT,
15121 41st Ave. S.E., Bothell,
Wash. 98011

WANTED

- Radiola dial hood(s) model 19, also information on Jackson Tube tester & United American Bosch "no battery" type B-A-N Supply, etc. See the "New to Philco" Cat. 99 Mark Zimmer,
1805 West 38th St., Davenport,
Iowa 52805

- 1929 book "All-Electric Rec-
ceiver Design" by D.F. Messineo,
for upfitting on garad sets or any other Garad info. Also info & ads for 1923 ES Ritchie "Coward" receiver. Alan Douglas,
Box 225, Pocasset, MA 02559

- Instruction book for Solar Capacitor analyzer model CC-1-60, will buy, rent, borrow or copy. C.V. Drant, 2169
Wilson Ave., Apt. 205, St. Paul Minn. 55119

- Health tube checker kit in original unopenen carton. Also need unit for Kodel "Mic-
rophone" for receiver, Sanyo model. Gordon Eklund, 8510
Gunnerson Lane, Prospect, KY
40059

- Alto Pedestal Re-Creator cabinet 4-1/2-ft., info on model base for this speaker. See Sept. '80 OTB (page 8) cfr spkr. For picture. Bob Goodman, 7943
Ponce Ave., Larnaca Park, CA
91304

- Hallcrafter HT-19 any condition. Clarence Smith, Jr.,
17045 144th Ave., Spring Lake,
Muncie, IN 47303

- "Radios 1, 2, 3, 19, 20, 21, 24 &
Upgraded 1-5." Radio Broadcast Mags. Will trade old tubes, parts or radios. State needs or cash. T. Muckstone, 8290
Midway Dr. Ct., Lake Elmo, Minn.
55042

- Photos, diagrams and parts for 1922 Acme-phon three tube set made by "New Era." Don Patterson, 536 Cambridge Rd.,
Augusta, GA 30909

Important

New address for OTB ADS:
Send all mail to Secretary/Asst. Editor: Richard Rangeley
17 Sheridan St., Auburn,
N.Y. 13001

- one 2 1/2" rheostat dial
Freed-Eisemann no. 365, American AF-6 & AF-7 AFT's, tuning con-

- dr for Zenith 1K/3R/AR.
G. E. Filley, 1109 S. 2nd St.,
Hamilton, MN 56040

- Magnavox Type A tubes with
Have AC Dayton, Oct. 1930
Zentith sales 1-14. Have 20 Radio News 1924-28 to trade for same vintage mags.R.E. Lotzer,
600 Green St., Monroe, WA 98251

- Magnavox Type A tubes for
112A, AF xfr-Rauland All American 3,1 type R21 base and driver for RCA 1300 series
Ship to Have AC Dayton, LE20 and Model S40 chassis w/tubes to trade.
Bill Jelinek, 128 North Stevens St., Rhinelander, Wis.
54501

- Magnapov horn to fit my type
K-3, Model 5 driver. Also Eckdakey radio kil set.
J. Albert Warren, Box 279,
Church St. Waverly, PA 18471

- Cabinet for Philco 20 cath.
knobs (4) & dial bezel for GE
585, dial knobs for RCA 16, source of old time grille cloth and logo decals for AC sets. Richard Brown, 117 Neisal Ave.,
Springfield, MA 01119

- copy of Riders TV schematic and/or any service info on Crosley 9-425 tv set. Jeff Aulik, 803 N. Chicago Ave.,
Rockford, IL 61107

WANTED

- Trade AK Model 10 breadboard. Also shortwave MK III TV crystal set. Kent Kennedy 110,
amp,pre-1930 sets. R. Brewster,
4025 Sabino Dr., Fitchburg, MA
15621

- 200 unused tested tubes. SASE for 1st. Kent AK584,AK287
R. A. Rara xfr dud, Radiola
60, Philco 80, Philco 90, Philco
W. Bankert, 165 S. Row Rd.,
Toounds, MA 01449

Freed-Eisemann NR-5 $ 60.
Radiola III $ 75., Radiola VI
$ 225, Philco 80 in square cabinet $ 35, AK "E" spkr $40.
Brandes Cathedral spkr $20.
Archie Vose, 336 Concord Road,
375 Cilley Rd., Manchester, NH
03103 (603) 669-1658

- complete replica crystal detec-
tor for Radiola V. Includes the four mounting discs for panel. Sorry no parts for sale. Crosety 50, 51, 52 panels drilled and engraved. Roland
Nelson, 360 Concord Road,
Bedford, MA 01730 (617) 663-3877)

- RME converter VHF, 152A with instructions, 144-148; 50-54;
27-29.7 used $ 20. plus UPS.
1 WL VT-1-5, 12.6 d. 6c. $ 4. plus UPS. L. C. Hardy, W200,
522 Shirley Ave., Franklin Lakes,
NJ 07417

- Kennedy 261, and 521 amp,
mint condition for Horden-Hauck
Admiralty Super 15 or a DXB,
or will purchase. L.P. Ryner,
5512 N 71st Place, Scottsdale,
AZ 85253

- Columbia 70-B chassis, Ral-
dolics 835 power Strobe Hick-
kock and Superior # 450 tube
 testers, AK55 w/spek, Radiola
super parts. Need bree harness for AK50. Radio kit sets, AK55's. Harvey Faulkner, 1525 New
Jersey Ave., Apt. 4, New Castle,
Del. 19720

- chome Scott, Aeriola Sr.,
Westhinghouse RC, PUP, Crosety 52
8 other sets, books, catalogs, mags, etc. Write for list. Summer list, most items still on sale. Reduced prices. SASE
(Tax included) (2 stamps) Ammon's,
2306 Covert, Evansville, Ind.
47714
“ANOTHER DAY IN WASHINGTON”

“Gentlemen, let’s have some more de-regulation. I propose we do away with amateur call letters and have the hams use their initials.”

FOR SALE/TRADE


--AK type 91 console with type O cabinet, Kolster K-43 console and Sparton AC console. All in good condition but radios not working. $35 ea. Will not ship. Alex Black, 102 Mineola Dr., Syracuse, NY 13224

--Will trade my rare Fleming valve, circa 1912, for a Delco-Rex audion single wing spherical tube circa about 1914. All letters answered. L.J. Schnedorf, 610 Nonore Ave., River Forest, Ill. 60305

--Old type disc records, 60 RPM Victor and Pathé. Henry Burr, John McCormick, etc. SASE for list. Frank R. Clark, Box 335, Buffalo, SD 57720

--Fada Model KW Superhet, lO tube BC set in working condx., in high boy cabinet which needs minor work. Best cash offer, no trades. Bert Marshall, K2AN, 1714 Winfield St., Rahway, NJ, 07065


--AK-20 (large). Crosley two and three tumbler National HRQ, FB-7. Many others. SASE for 3 page list of sale/trade items. R. Chester Wisner, 1014 Main St., Dalton, MA 01226

--Rider’s vol 1-13 with indexes $110. plus shipping. C. Knowles, P.O. Box 45, Eufaula, AL 36027

--will sell SCR-95 WWI wavemeter, 1916, 1917, 1919 QST’s and other items. SASE for list. Till Jones, 14435, 7216 Valleyview Blvd., Dallas, TX 7 5003

--reproductions of red push buttons for late 30’s Philco radios $6. for set of 6. Send me an original button so I may match length. W.H. Brans 2427 Durant #4, Berkeley, CA 94704

--Speak Aksyde Neoertodyne 80 for early commercially manuf. crystal set or make swap offer. Dick Downey, 99 Florida Ave., Amsterdam, NY 12010

--Will trade telegraph, early radio, TV parts for early telephone & parts. Send SASE to Dick Downey, 99 Florida Ave., Amsterdam, NY 12010

--Rider’s manuals, recvrs, spkr, tubes, etc. Send SASE to Bob Husted, 200 Boca Raton Rd., Boca Ratan, Fl. 33432)

--SOS from 1920’s thru 60’s. 6 QST Ginders. SASE for list. Herman Foote, 10 Jackson St., Naugatuck, CT 06777

--Grille cloth for Philco models 70 and 90 exact match. SASE for sample and price. Bob Robinson, 232 Cinder Road, Timonium, Maryland 21093

--double cotton covered wire, double nylon covered ‘silk’ wire in green & red, tin coated bus wire round and square. Most popular sizes available. SASE for listing. Charles Days, P.O. Box 205, Sa. Dartmouth, MA 02748

FOR SALE/TRADE

--Clapp-Faschberg tetrode amplifier, Kennedy X, Rider’s TV manuals, W.E. 7-A, W.E. 10-D, etc. SASE for list. Jim Collins, 12005 Victoria Pl., Oklahoma City, OK 73120

--Reproductions of Marconi Wireless Co. of America forms. SASE for details. Fred Nikolajewski, 1325 South 103 St., West Allis, WI 53214

--Sound system: 2 old 12” electrodynamic sound reproducers. Helmholtz resonator cabinets, Stromberg-Carlson No. 22 amplifier, Rek-O-Kut T-12-H turntable. Fisher preamps. Henry Schwartzman, 123 Bridge St., Corning, NY 14830

--Hallicrafters S-38A, perfect. $250; Silvertone Model F with cone speaker restored, $110. Murphy TA152I (English) 6 tube works, $40. Want escutcheon for Gloritone Model 25. Don Dean, 1711 Colton St., Saratoga, Fl. 33561 (313) 966-2661


--H-40 STAA with original spkr, pwr supply, and 7 coils. From 50 KHZ to 30 MHZ. Excellent condition. David A. Knepper, Box 85, Sidney, PA 15855. Tel. (814) 467-7468

The S.E. 1012A Receiver
by Paul Giganti, W6GVY

In 1918 the U.S. Navy had a need for compact radio compass equipment for destroyers. As may be assumed from the size of the destroyers, space was at a premium because of the limited area of the radio room. The radio compass equipment for destroyers was allowed even less space than the ordinary radio equipment since the use of compass equipment had not been contemplated in laying out this craft, so that something smaller was needed. This receiver is known as the S.E. 1012A.

Front view SE-1012A

The general panel layout is similar to the established design in previous shipboard receivers. The size of the receiver is 9¼" high by 17¼" long by 5¾" deep. It differs quite radically from the previous types in that the vacuum tube and associated controls are included in the circuit. An exceptionally small crystal detector is mounted on the panel.

The tube coupling is perhaps the most novel part of the receiver in that it comprises both inductive and capacitive coupling. The coupling capacitor is of a particularly ingenious design. It consists of two circular plates separated by a bakelite ring, which through the motion of the coupling control, may be moved toward or away from the stationary plate.

The receiver was produced in great quantities and installed on most destroyers. It had a wavelength range of 50 to 100 meters.

The set as shown is from my collection. The serial number is 243 AY and came from the collection of John Drake of Madison, Connecticut, in trade for a Norden-Hauck receiver. It is in like-new condition and was probably never used.

For further technical details see QST Magazine, July 1920.

NEW MEMBERS

who are (or were) with electronic communication or industry:

Herbert St. Laurent (ex-LACK) Hygrade, Sylvania, Raytheon, CeCo, N-U, N. R. L.
Albert Evangelista (W3ZIP) F. C. C., Federal Radio Mfg.
Raymond Shatzel (W2XC, ex-T12JAR) Germen S. A.
Rev. Frank Wilhelm, Newscaster and broadcast announcer
Steve Meitzler, Computer Consoles com. engineering
Ed Taylor (VE3FRM) I. T. T.
Dan Eyring, Raytheon Corp.
Frank Kates (W6CVA, ex-W7HQP). Aerospace Electronics
Richard Downey (KA2JIZ) Radio USAF
Robert Miller (WD9HCT) USCG Radio Radio Corp. Amer.
Edward Romney (N4DFX) Radio Inst. Broadcast engineer
W.J. Heard, General Electric Co.
James Ballard, Broadcast Engineer
Frank Pagano, Stations WXXI, WCJW
Roger Gagnon, USN Communications
Rawlins Eastwick (N2AWC) Tel. eng.
Ray Kelly (VK3ZAK) Broadcast & TV Public Service (Australia)
Robert Maltz (WA3SEB) Merchant Marine Radio: KFIE, WFCY, KESR, WJDI, KOQC KOBV, KUPN, etc.
Dr. Blaine Sweatt (ex-W1MHZ) Ex. Mgr. RCA, Federal Elec., etc.
Gaylord Timblin (K7HF, ex-KH6GBK, CT2BI, etc.) Civic Radio
James Moxley (W3BCH, ex-W4GDX, W0CZF, etc.), Pres. Radiation Assoc.
Paul Sanford (WB9IGB) Station WIL
Bill Plimpton (W2IXH) Com. ship oper.
Joseph Smolski, H. H. Scott, RCA, Robert Wallace (K8BYQ) Owner of Wallace Commun. Co.
Al Keltz (W2TXB) Station WHEC
Clinton Blais, Electronics Eng. USAF
David King, R. F. (Harris) Commun.
Edward Vernier, Station WKYC- TV
Thurlow Chandler (W2TB) A. T. & T.
Fred Schultz (K9DJW) Communication Officer, Indiana State Police Radio
William Frost (WD8DFP) R. L. Drake Co.
Rich Spencer, Western Electric Corp.
Pictured is an extremely rare Mignon receiver of WWI period. There appears to be some question as to whether this set was made just prior to WWI (1916-17) or immediately after the war. Note the Audio tron tube and the added coil which may or may not have increased the receiver’s efficiency.

The manufacturer, Ernst Mignon, had a colorful career and has been mentioned in earlier OTBs. He set up companies in several locations including Elmira, Rochester and Lima, New York. The latter location was in the mid 50’s; he then disappeared leaving no trace.

This highly-prized set is a gift to the AWA Museum from Diane Fisk as a memorial to her late husband Jim Fisk, W1HR, Editor-in-Chief of Ham Radio publications. Jim was an ardent historian, a collector and participant in the AWA OT Transmitting Contest.

An engraved plaque with Jim’s name will be permanently mounted on the cover. Look for the set the next time you visit the Museum.

BRITISH WIRELESS CABINET DESIGN

Members at AWA Headquarters have been admiring some beautiful 35 mm. slides recently received from Vintage Wireless Co. The 18 slides were professionally taken in color and show a wide range of outstanding receivers made in Great Britain from 1922 to 1950.

The sharp detail allows the viewer to carefully examine the design of sets (and speakers) seldom seen in America. Accompanying the slides is a small booklet giving short history of British receiver development and a description of each receiver (slide).

An interesting club program, or for that manner, a private showing. The price is 5.00 pounds plus 1.20 Airmail postage to USA. (Note need to convert to dollars.) Write: Vintage Wireless Co, 64 Broad St., Staple Hill, Bristol BS16 5NL Great Britain.
"RADIO EQUIPMENT and SUPPLIES" the latest and largest reprint catalog currently available. Originally printed in 1922, it consists of 160 pages, high glossy paper (8 1/2 x 11"") with numerous illustrations and descriptions. All the popular receivers of the period are shown including some rare ones such as Radiolas AR-1375, AR-1382, AA-485, AA-1400 and AA-1520. A most interesting catalog for the radio historian and collector. Available from Vestal Press, Box 97, Vestal, N. Y. 13850 for $12.50 plus 75¢ shipping.

DR. NIKOLA TESLA BIBLIOGRAPHY
by John Ratzlaff and Lee Anderson
Tesla buffs (and radio historians) will find this recent publication one of the most comprehensive bibliographies ever compiled. The authors spent several years searching books, magazines and newspapers for articles on this famous electrical genius.

Printed in large soft-cover format, it lists over 3,000 annotated citations and references chronologically plus a complete list of his numerous patents. A short biography is included. The price is $18.00 ppd. (ISBN 0-916660-08-4)
Ragusan Press, 1372 Rosewood Ave.
San Carlos, Calif. 94070

HALLICRAFTER
Chuck Dachis, Wd5EOG, is seriously thinking of printing a Hallicrafter catalog sometime next year. As a "H" buff, he has collected what is believed to be one of the largest collections in the country. The catalog will feature photographs of all "H" products including accessories, brief descriptions, rarity and original plus current prices. The catalog should be of great value to the classic/commercial collector.

NEW BOOK ON SPEAKERS FOR THE COLLECTOR
A comprehensive 1920's horn speaker encyclopedia notebook (Xerox) is now available. It consists of 110 pages, over 1 lb. of material, over 450 pictures, over 600 horn references, over 270 mgrs., trade names, styles, models identified. A few Xerox pages are weak but legible. Limited quantity planned. $9.90 each plus $1.75 shipping. Write: Floyd Paul, 1545 Raymond Ave., Glendale, Calif. 91201.
NEW EQUIPMENT
in A.W.A. Museum
(sets, parts, magazines, books, etc.)


In addition to the rare Mignon receiver described elsewhere in the OTB, AWA was also the recipient of an early ssb station for W2AN operation. Consisting of a 1951 Collins KWS-1 transmitter and a much later 75 A-4 receiver, the Association will now have an operable station replacing the earlier 10-A/807/805 setup. This outstanding installation is a gift from Harry McConaghy, W3SW, better known as 'Connie-Mac', former ARRL Director. Tks Om.

Pioneer Vance Phillips, W6GH, is donating part of his large historical collection to the Museum. This will be a most welcomed gift. A description will appear in the next Bulletin.

Tube historians will be interested in material received from the estate of pioneer vacuum tube engineer/inventor William Housekeeper who perfected a method of sealing glass to metal.

LARGE ATTENDANCE AT AWA MUSEUM

The season started rather slow but gained momentum in July with many people at every opening for the remainder of the summer and well into the fall. Some Sundays, three members, acting as guides, were kept busy the entire afternoon showing groups through the Museum.

Although a fair share of the visitors were from New York and neighboring states, there were many from the far west and Canada as well as overseas. What is the attraction?

The AWA Museum is unique. It is the only public museum of its kind in the East devoted entirely to electronic communication. Other radio exhibits are either partial displays in large institutions or local museums that do not post or advertise regular visiting hours.

The public is made aware of the AWA Museum through announcements in QST and other magazines plus large distribution of brochures at tourist centers, motels, etc.

And what do they see? A unique collection of equipment ranging from 1850 telegraph equipment to gear used on space projects to the moon—thanks to the many members who have contributed artifacts and their time. And lastly, and also important, it is FREE!