



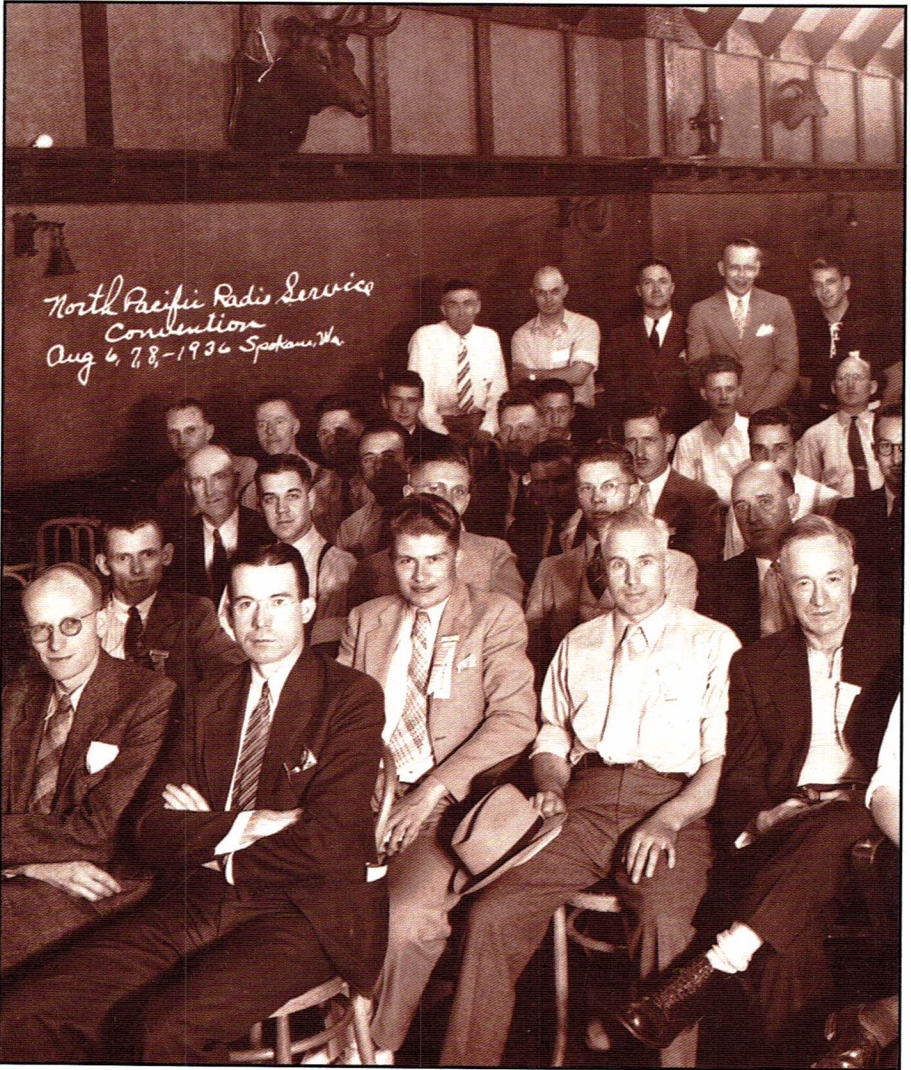
# ANTIQUE RADIO CLASSIFIED



VOLUME 15

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A.R.C. — THE NATIONAL PUBLICATION FOR BUYERS AND SELLERS OF OLD RADIOS AND RELATED ITEMS — PUBLISHED MONTHLY



# ANTIQUE RADIO CLASSIFIED

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# ANTIQUE RADIO CLASSIFIED

## EDITOR'S COMMENTS

Trips down "Memory Lane" are a frequent happening for radio collectors. Even if we haven't been there, the equipment and literature we treasure tell us much about the early days of radio. We appreciate articles like Ellsworth Johnson's account of his family radio business with the accompanying photo on our cover because they take us back to the 1930s and strike a strong nostalgic chord. But, they also remind us of how little times change — that 1936 convention banquet could be the next AWA gala at Rochester, New York. Radio folks will always find a way to get together and share the past.

Nostalgia is also evoked by articles about that often overlooked category — early home brew sets. Usually found at bargain basement prices, they often reveal fine workmanship and quality components, once you look under the lid. Dwane Stevens' article tells about his "garage sale find" — a neatly laid-out 5-tube neodyne battery set where bad audio transformers were the only major problem. We can easily picture the maker of this radio working away at his kitchen table just as Ellsworth Johnson's father did in the 1920s.

Frank Smith adds another nostalgic note with his article about an Amrad battery set, which was the family radio when he was a kid. In contrast to a home brew, Amrad was a commercial product of outstanding construction. Frank writes with regret about the fate of his childhood set.

Another small General Electric cathedral is Richard Arnold's subject this month. Although the 5-tube chassis is cramped, the GE Model K50-P is a 2-band set with a tone control, plus the necessary band switch offset to the right.

Ask a radio collector what else he collects, and you may hear phonographs, cars, early medical devices, calculators, and even computers — some related to radios, some not. But, light bulbs are closely related to radios — they are the predecessor to the vacuum tube and are often seen on flea market tables at radio meets. Robert Ene-mark writes about a reproduction of an early Edison light bulb which he found at an auction.

Events in Texas and Pennsylvania point to a busy season on the meet and auction circuit. Bill Werzner and David Moore report on the January Houston Vintage Radio Association Mega Auction. At the 2-day event, 624 lots were auctioned, and a Grebe MU1 brought the highest bid of \$490.

Reporter Ray Chase covers the second auction of the Joseph Kanuski collection held by Robert Arner in Kempton, Pa. The condition of the items offered reflected the low prices realized. The homebrew collector, however, came away happy, since he had his pick of over a half dozen home brews, including a superheterodyne. A Zenith Trans-Oceanic brought the top bid of \$200!

Capacitor topics are the rage at present, and

Alan Douglas describes the latest in testing electrolytic capacitors — measuring the equivalent series resistance (ESR). Using a signal generator and an AC voltmeter, the ESR of an electrolytic capacitor can be easily measured without removing it from the circuit. Although a bit of math is required if you use generic bench-top equipment (as does Alan who describes himself as a "certified cheapskate"), he reports that commercial testers that give good/bad readings are available.

A log cabin desk radio and a novel Crosley AC/DC set are of interest in this month's *Photo Review*. In addition, photos of two crystal sets constructed on postcards, contributed by the Austrian collector Erwin Macho, are included.

The anticipated CD-ROM version of Marty and Sue Bunis' *Collector's Guide to Antique Radios* has arrived. A.R.C. staff member Ray Bintliff reports on his "test-drive" using his home IBM-compatible computer. Included on the CD-ROM are over 1,800 photos and information on over 9,000 models. Several different indices are included to make finding a particular set easy.

Subscriber Allan H. Weiner's book *Access to the Airwaves* is off the beaten path of radio collecting, but his struggle to develop "pirate" radio broadcasting and to make the airwaves free to everyone is certainly radio-related. Reviewer Jerry Berg finds Weiner's commitment to his cause admirable.

**Coming Radio Events.** May is a difficult month to schedule radio events with two major holidays, Mother's Day and Memorial Day, taking our attention. However, there are five weekends in May this year, so three are left to cram in over four dozen events and auctions. Multiday events are being held in Texas (Mega Auction), Indiana (IHRS Spring Meet), Pennsylvania (the Molettieri auction), Minnesota (Radio Daze '98), and Ohio (Hamvention).

A.R.C. will be at this last event attended by over 30,000 ham radio operators. Look us up at indoor booth 207; New Wireless Pioneers will be next to us. Radio collectors can often find treasures at this huge show, with 558 inside exhibit spaces and 2,500 outdoor flea market spaces. So, I hope you will stop by our booth and say, "hi."

Happy Collecting.

John V. Terrey, Editor

## ON THE COVER

Our cover photo, contributed by Ellsworth Johnson, evokes the ambience of a 1936 North Pacific Radio Service Association Convention in Spokane, Washington. The Johnson family radio electronics business (1934-1974) made attendance for them at such events a given. Having just joined the firm full-time at age 17, Ellsworth and his father Edwin are pictured seated at the upper right edge of the photo. Do any of you see a familiar face in this photo?

# WITH THE COLLECTORS

## A Bit of North Pacific Radio History

BY ELLSWORTH O. JOHNSON

*Ellsworth Johnson's photos related to his family radio repair/electronic supply business have such a nostalgic air that we asked him to tell us more about them. His story covers more than 50 years — 1920s-1970s — and tells of the kind of family operation that many old-time collectors remember well. (Editor.)*

Some time ago I became acquainted with Milt Bave, one of the founders of Tektronix Corp. He told me an amusing anecdote about his wife. At the close of World War II, she had wired Oscilloscope Serial Number 1 on their kitchen table — a symbol of the beginning of Tektronix. This story involving a kitchen table triggered memories of my father, Edwin M. Johnson, and his founding of a family radio business in the 1930s.

My first memories of my father, who started earning his living in radio in 1923, was his building sets for customers on the kitchen table. At that time, radios were not commercially available to any great extent.

I was born in 1919, and when we were given clay to work with in first grade, I emulated my father and made a clay radio. The teacher was so enthralled that she took me and my radio to the principal to show him my creation.

My father worked for a furniture store as a radio technician in the mid-1920s. In the early 1930s, he became service manager of the Radio Department of General Electric Supply Corp. in Spokane, Washington. In 1934, at the height of the great depression, GE Supply Corp. decided as an economy measure to close the department.

The company then subcontracted its work to my father, providing him with an opportunity to open a radio repair shop in 1934. During the 1930s and 1940s, his business, E.M. Johnson Electronics, was the dealer for such manufacturers as General Electric, RCA Victor, Philco, Zenith, Emerson, Kadette, Admiral, and others.

In 1936 when I graduated from high school, I joined the firm as my father's apprentice. That same year, I attended with him the North Pacific Radio Service Convention. Figure 1 shows what appears to be a very serious meeting of the "old boys" at that event. My father and I are in the second to last row. In Figure 2, the dealers and their wives — almost all still very serious — gather for the typical convention banquet of the times. My parents are the first couple on the left of the center long table.

Jobs were very scarce in those days, and the war was approaching. I went into the Signal Corps



Figure 1. A meeting of dealers at the North Pacific Radio Service Convention, August 6-8, 1936. The Johnsons, father and son, are in the second to last row.





Figure 2. The social event of the 1936 radio dealers' convention was the banquet to which wives were invited. Somber faces seem to have been the rule for photographs in the 1930s, even at parties.

attached to the Air Corps in December 1941. Within ten months, I had received a commission at Ft. Monmouth Signal Corps School in New Jersey. I was overseas almost two years as a radar officer in the 12th Air Force, Africa and Italy. By the end of the war, I had risen to the rank of captain.

In late 1946, I succeeded in attaining my goal of becoming a radio parts distributor after I had bought a half interest in my father's business. Beginning with the mid-1950s, we were the exclusive agents for Grundig, and we carried many other lines, like Hallicrafters and National, as well. In 1958 we incorporated, and I became president of the firm, while my father and mother became treasurer and secretary respectively. Figure 3, ca 1959, shows the store on West 611 First Ave. in Spokane. My father is visible through the window at right behind a display of Grundig radios.

When I closed the firm in 1974 — after 40 years — and retired at the early age of 55, the Grundig representatives told me that we had been the company agent longer than any other firm in the U. S. In fact, they were about to offer my wife and me a free trip to Germany to visit the factory. However, closing the firm meant that we missed out on this bonus.

*(Ellsworth O. Johnson, 364 S. Coeur d'Alene St., Spokane, WA 99204-1063)*

*Photos courtesy of Ellsworth O. Johnson.*



Figure 3. A 1959 photo of the Johnson Electronic Supply Co. at West 611 First Ave., Spokane, Washington. E.M. Johnson, founder of the company, can be seen through the window at right behind a display of Grundig radios.

*Ellsworth Johnson's collecting interests have been wide-ranging over several decades — from player grand pianos, circa 1920s-1930s (his music rolls once numbered 10,000), to Television Receive Only (he still owns a 12-foot dish), replica radios (a full-scale Sparton Bluebird is the latest), and a computer technology called "electro-medicine," involving alternative medicine research. He has certainly moved with the times in his retirement years.*





# HOMEBREWING

## Garage Sale Home Brew

BY DWANE STEVENS

*The message of Wally Worth's home brew article in the October 1997 A.R.C. — "Home brews can grow on you as worthwhile items to collect" — has certainly been confirmed by the following article. Dwane Stevens tells us about a lucky home-brew find that reminds us to check out those garage sales. (Editor).*

Checking the flea-markets and auctions for a 1920s battery set to add to or start your collection? Both are excellent places upon which to keep a vigilant eye for a good radio buy. But don't forget the plain ole friendly, neighborhood garage sale, because it too can yield interesting results.

Figure 1 shows a home-brew 1920s battery set that was brought out of storage and put in a garage sale here in Ardmore, Oklahoma. No, I wasn't fortunate enough to actually find the treasure myself, but I was fortunate enough to trade for it from a friend whose wife is a diligent garage-saler.

### THE CONDITION

This set was in very good condition cosmetically, except for being very dirty. The electrical condition was good except for the fact that both audio transformers have open windings — a common condition of sets this old. All the tubes were there, and two of them are brass-based, tipped, Radiotron UV201-As. Some of the tubes have stickers on them showing they were apparently distributed through a company called "555, Inc. Little Rock, Ark." Maybe an A.R.C. reader can share information on this company.

Also, stashed inside was an Eveready C battery, shown in Figure 2, which states on the bottom, "For Best Results Put In Service Before June 1927."

The set cleaned up quite nicely, and, for a home brew, was laid out with a neat appearance, as shown in Figure 3. One tube socket even has a wooden thread spool under it for spacing (a nice home-brew touch).

### PERHAPS A 5-TUBE NEUTRODYNE

This set appears to be a 5-tube neutrodyne, judging by the circuit arrangement which con-

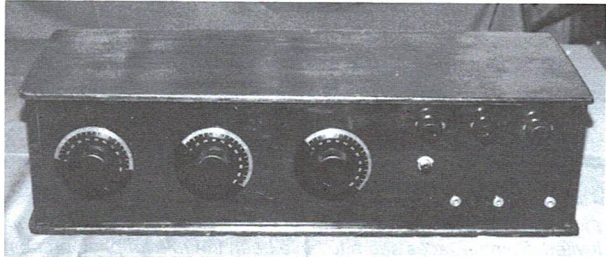


Figure 1. A view of the 1920s home brew battery set.

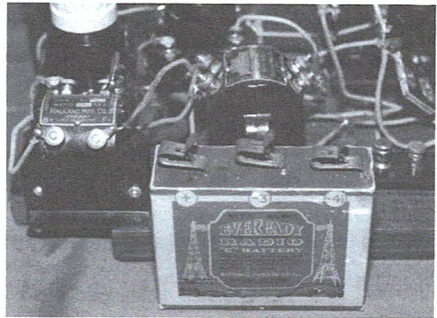


Figure 2. A close up of the radio and its C battery.

tains two neutralizing capacitors for the two RF tubes. A close-up picture of one of the capacitors in Figure 4 shows their simple construction, consisting of an insulated metal tube or sleeve over a piece of wire. The wire actually is cut in the middle and is, therefore, not continuous. The metal tube has an insulating sleeve inside

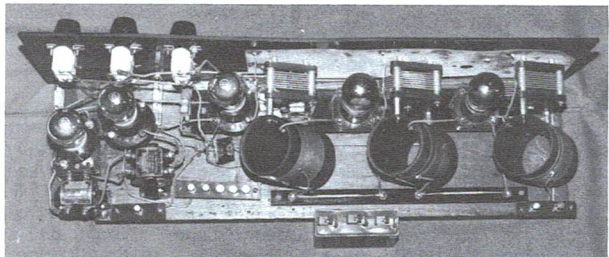


Figure 3. A top view of the home brew set shows the neat construction layout.



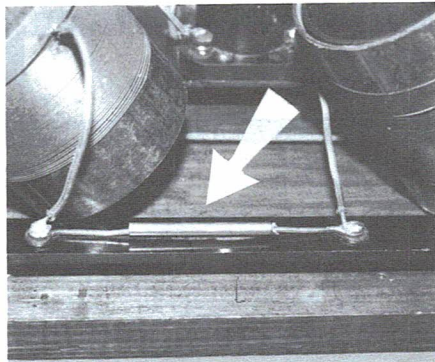


Figure 4. One of the neutralizing capacitors.

so that it doesn't contact either wire.

This proximity arrangement of wires inside a tube creates a small amount of capacitance which can be varied by sliding the tube back and forth over the wires, thereby providing the exact neu-

tralization for the tube being used.

It's nice to come across an old battery set that hasn't previously been in someone's collection and at the same time still has its original components. This particular set, as best I can tell, has its original components and cabinet. However, the pine board upon which the components are mounted may not be as old.

So the next time you pass by a garage sale, take a close look around because you never know what someone may have just dragged out of the ole attic.

*(Dwane Stevens, KC5MT, Rt. 3, Box 25A, Ardmore, Oklahoma 73401)*

*Dwane Stevens works for a major tire manufacturing company installing and calibrating computer controlled equipment. An amateur radio operator for about 20 years, he holds an Advanced class license, while his wife, two sons and daughter hold Technician class licenses. He enjoys repairing and restoring 1920s battery sets and early AC sets, as well as collecting tubes, repair manuals and old radio magazines.*

## General Electric Model K50-P

BY RICHARD ARNOLD

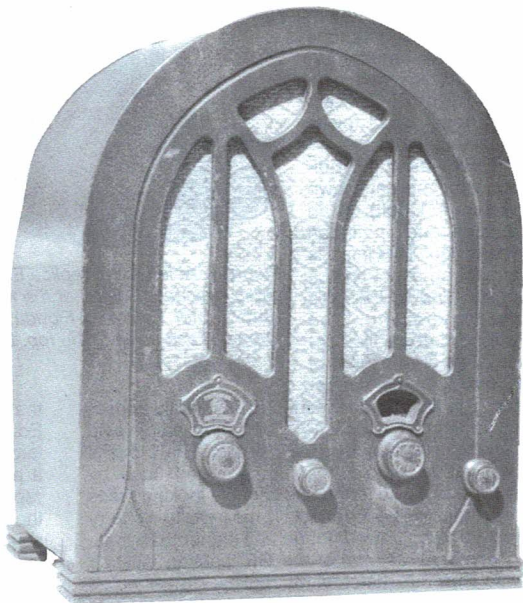
The Model K-50-P, *circa* 1933, was manufactured by General Electric and marketed by RCA. RCA sold the same chassis as its Model R-28-P in a slightly different cabinet.

The K-50-P is a small cathedral-style radio, measuring only 13 3/4 inches x 14 x 7 5/8. According to Ed Romney in his book *Fixing Up Nice Old Radios*, it was a superheterodyne without IF amplification. The output of the oscillator/1st detector is coupled to the grid of the 2nd detector by an IF transformer. This 5-tube set uses the following tube types: 58 RF, 2A7 oscillator/1st detector, 57 2nd detector, a 2A5 audio output, and an 80 rectifier.

The chassis is three inches deep, in contrast to the usual two inches, due to its cooling requirements. The set contains most of its parts under the chassis, including the tuning condenser. Due to this cramped design, the radio is difficult to service.

The radio is housed in a very nice cabinet, which is well built. It covers the regular broadcast band (540-1500 KC) and a higher frequency (1400-2800 KC) shortwave band. The small knob, on the right side of the cabinet, looks quite out of place. It is the band selector. The other small knob in the center is a two point tone control. In contrast, the two larger knobs are the on/off switch (left) and station selector (right).

There is also a General Electric Model K-50 with three knobs and no shortwave capability.



The General Electric Model K50-P cathedral

However, it was never as popular as the K-50-P, and does not command the same value today.

*(Richard Arnold, PO Box 275, Lone Grove, OK 73443)*



# WITH THE COLLECTORS

## Thomas Alva Edison's Incandescent Lamp

BY ROBERT B. ENEMARK

For the filament of his incandescent lamp idea, Edison and his coworkers experimented with hundreds of materials, including bamboo which he planted and grew at his winter home in Fort Myers, Florida. Most of these materials had such a short life or low light output as to be useless. But, in October of 1879, Edison achieved success by using a carbonized, cotton thread which lasted over forty hours. Patent Number 223,898 was granted to Edison on January 27, 1880, for this invention, which also included several novel ideas for its manufacture.

I purchased the Edison lamp replica, shown in Figure 1 (left), at an antique auction fifteen years ago. This lamp is almost an exact replica of the one in Edison's patent drawing. The wound carbon filament consists of  $4\frac{1}{2}$  turns of about  $\frac{1}{4}$  inch in diameter.

The bulb is  $2\frac{1}{2}$  inches in diameter, and its neck-stem  $\frac{7}{8}$ " wide x  $1\frac{1}{2}$ " long. The lamp's cold filament resistance is 420 ohms. The lamp is secured in its old wooden, doweled base by sauerisen cement and has very old looking brass terminals. Using a Variac, I lit the lamp to a cherry red color, but dared not go any higher than that.

James J. Jenson of the GE Lighting Institute was shown a sketch of my replica. He estimated that it was made at the Lighting Institute for sale during the Chicago "Century of Progress" World's Fair in 1929. The year was also the Golden Jubilee for Edison's lamp. I believe it to be older than that from its crude construction and close similarity to the patent drawing. I wonder if any A.R.C. reader can shed further light on its age.

Figure 1 (right) shows a commemorative lamp



*Figure 1. At left is the replica Edison lamp with brass binding posts and taller glass evacuation bead at the top. At right is the Edison lamp at the Edison/Ford Winter Estate in Florida, this one with Bakelite binding posts and a shorter glass bead at the top. Both have turned wooden bases.*

that appears to be the oldest one on display at the Edison/Ford Winter Estate in Fort Myers. It has a large loop filament, Bakelite knob terminals, and a polished base. It looks more like the modern replicas now available than mine. I suspect that there may be older originals or replicas at Edison's Orange, New Jersey Museum, which I have yet to visit.

*(Robert B. Enemark, W1EC, P.O. Box 1607, Duxbury, MA 02331)*

*Robert Enemark is a retired consulting engineer, who has been awarded over 50 U.S. and foreign patents. A ham operator since 1941, he collects pre-World War II shortwave sets and telegraph equipment in particular.*



# RADIO RAMBLINGS...

## Amrad Memories

BY FRANK W. SMITH

Back about 1924, my father purchased a radio known as "Amrad." The original version was a single deck affair which I think used a single Type 201-A tube and originally would drive only headphones. Later, Dad bought an add-on deck, which mounted on top of the original piece and used three Type 01-A tubes.

A "well" built into a window seat of a large bay window of our home housed two or three 45-volt B batteries, a 6-volt storage battery for tube filaments, and a battery charger. This up-graded version would now do a reasonable job of driving a small speaker, and make a passable effort at operating a larger horn speaker.

When conditions were right in the evening, we could hear WSB (Welcome South, Brother) in Atlanta, about 120 miles distant, as well as KDKA in Pittsburgh. One of my first clear recollections is traveling at the age of five or six with my dad to Atlanta, where he sang in a quartet over Station WSB on top of the Biltmore Hotel. I clearly remember Dad raising me up so that I could see over the parapet around the roof of the Biltmore, from which Stone Mountain was visible in the distance. Of course, the folks back home were glued to the old Amrad that evening, but alas! — weather conditions were not favorable, and they could barely hear sounds emanating from WSB.

About 1928, Dad traded the Amrad to my cousin, who dabbled in selling radios around town. I remember very well that he got \$10 for the Amrad in trade.

By this time, I had acquired a very active interest in radio, and I persuaded my cousin to sell me the Amrad back for \$1. Now I was the proud owner of this beautiful, grand old radio, replete with variometers, varicouplers, rheostats, tap switches, dials, brass-based 201-As with the tip on top, and much else. I recall that there were many different knobs and controls on the front panels.

So what did I do with this gem? Unfortunately with the folly of youth, I systematically salvaged every possible part of that old set. Over a period of years, I cut up the Bakelite panels, removed the wire from the variometers, used the screws, bolts, nuts, washers, binding posts, tube sockets, resistors, condensers, and rheostats in my various radio projects. All I have left today is a couple of filament rheostats and a potentiometer that somehow managed to survive.

In the meantime, a friend had found an old loose coupler in his attic, and with that and parts salvaged from the Amrad, we made a noble effort to build a crystal set. I had no idea where to obtain a galena crystal, but I had read somewhere that iron pyrite might serve. I had some iron pyrite in my chemistry set, so into the crystal holder it went! Sadly, all we were ever able to get on that radio was static

noise. Perhaps if we had had a station in the vicinity, it might have worked. However, WSB or possibly a new station at Athens, Georgia, were the only possibilities.

My point in relating all this is that it was probably an antique radio that launched my whole career in radio, electric power, and electronics. I wish so much now that I had preserved that old Amrad. It might capture the interest of other young people and be a factor in launching other careers.

*(Frank W. Smith, W4EIN, 2023 Haven Crest Dr., Chattanooga, TN 37421)*

*At about age 12, Frank Smith built a small Tesla coil. In 1936, at age 15, Frank received his call, W4EIN. World War II interrupted his education at Georgia Tech, but he graduated in electrical engineering in 1947. In the military, Smith worked briefly in radar, and wound up as a technician in VHF radio. Since retiring after 34 years with the Tennessee Valley Authority, Smith has taught electronics and related subjects at local colleges.*



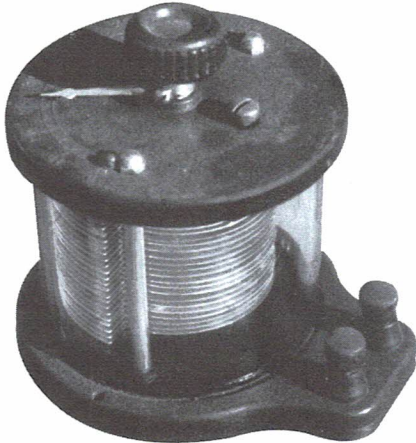
*Alan Douglas has supplied this photo of an Amrad 3500-2 (3730 and 2634) which Alan believes could be the set Frank Smith describes. A Model 3380 (3108 and 2634) might be closer, but a photo was not available.*



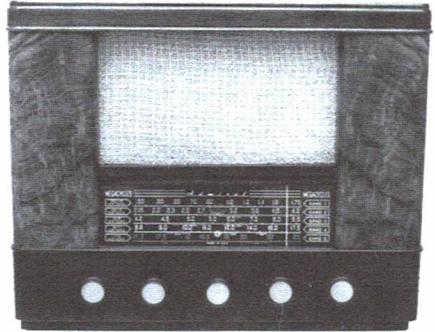
# PHOTO REVIEW



This column presents in pictorial form many of the more unusual radios, speakers, tubes, advertising, and other old radio-related items from our readers' collections. The photos are meant to help increase awareness of what's available in the radio collecting hobby. Send in any size photos from your collection. Photos must be sharp in detail, contain a single item, and preferably have a light-colored background. A short, descriptive paragraph **MUST** be included with each photo. Please note that receipt of photos is not acknowledged, publishing is not guaranteed, and photos are not returned.

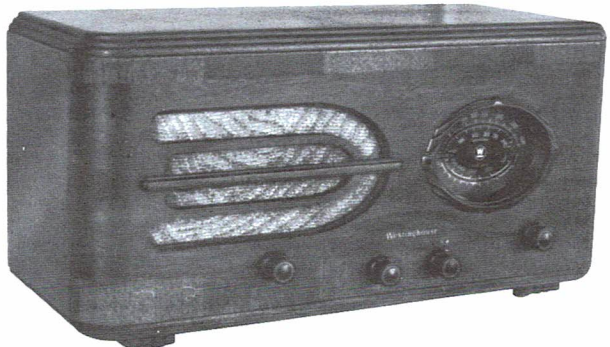


**ELECTRO IMPORTING CO. VARIABLE CONDENSER** – This pre-1920 tuning condenser is made of a molded "mud" material with a glass surround. The screw at the top is the inlet to fill the glass container with oil. Instructions on a paper tag on the bottom recommend using either castor, neats-foot, olive, transit or paraffin (mineral) oils for increasing the capacitance up to 100%, depending on the oil selected. (*Dave Crocker – Mashpee, MA*)



**ADMIRAL MODEL 7T09-X** – This radio is unusual and somewhat of a mystery to me. It's an odd hybrid of a mass-produced, consumer-style radio and a shortwave communications receiver. Like a communications receiver, it has a chassis-mounted fuse, a "twist lock" AC power connector, and 5 bands. Like a regular broadcast radio, it has no BFO, bandspread, or other communications receiver features. I'm only guessing that it's from 1948, primarily because its schematic is in the 1949 Rider's volume. I would very much like to find additional information about this set. (*John Pelham – Suwanee, GA*)

**WESTINGHOUSE MODEL WR116** – This attractive table model is 19" long and a full 4" longer than the other WR models of 1936. It has 7 tubes, SW, and BC. The unusual blend of several veneer tones, plus a lighted red dial pointer, helps make this model a desirable collector's item. (*James Bumstead – Williston Park, NY*)





## PHOTO REVIEW



**RADIO-KARTE CRYSTAL SET, MFG. UNKNOWN** — Here are two versions of a crystal set in postcard form. Both sets use slide coil tuning, but the crystal detectors are a different configuration. The front of the cards, designed by Wanda Fialkowska, contain the contacts for phones, earth and antenna. (*Erwin Macho – Vienna, Austria*)



**AUDIO-TONE MODEL JR-1** — This very small 1-tube receiver has compression-type tuning, similar to the system used on the Connecticut Sodian receiver. The binding posts look like those made by Fada. The detector/amplifier tube used here is the red-top QRS type. (*Dave Crocker – Mashpee, MA*)



**CROSLY MODEL 2C-1** — This 1935 radio is in a 7" x 6" x 5" metal cabinet painted gold. The picture collage on the front is glued to a flat piece of corrugated cardboard. A driver is attached to the center of the cardboard, making the entire front of the radio a speaker. The 2 tubes are Types 12A7 and 6F7. (*Willis A. Rudolph – Memphis, TN*)

**LOG CABIN DESK RADIO** — The chassis of this radio is a Crosley model, ca. 1936, using the old standard AC-DC string of 5 tubes. The cabinet is obviously home brew with windows on the front for the radio dial and an electric clock. A side window is used for the speaker opening. The antenna is mounted in the roof, with the trophy over the door being included in the antenna system. "California" is printed on the radio dial, along with station and call letters for all the San Francisco bay area stations operating at that time. The dial face colors were originally brown and maroon but changed to gray and green over time. (*Richard Bartle – Hollister, CA*)



# MEET AND AUCTION REPORT

## Houston Vintage Radio Association Mega Auction

Houston, Texas — January 30-February 1, 1998

CONTRIBUTED BY BILL WERZNER AND DAVE MOORE

The Houston Vintage Radio Association's 1998 convention and auction was held January 30-February 1, 1998, in the Lai Lai Suite and restaurant area of the Tides II Hotel in Houston, Texas. The January date was chosen over the traditional late April/early May date and will continue that way for the foreseeable future.

Besides the auction, highlights of the weekend were radio repair classes and a flea market.

Over 110 members and guests from far and near came to enjoy the beautiful spring-like weather and to bid on the 624 lots that crossed the auction block during the 2-day event. Those who attended were thrilled to say the least! The condensed list of items below typify an auction of this kind in that some items sold for pennies on the dollar while others surprised even the old pros as the bidding became fierce.

Among the lower priced items were a number of Rider volumes in good condition, large assortments of vacuum tubes and records, and some very nice test equipment. The market was especially good for certain small plastic and Bakelite radios. Plastic, novelty, solid-state radios also sold well. Small wooden table sets and tombstone radios ranged from low to high in value depending on manufacturer and condition, while some very nice cathedral sets brought moderate prices.

Among the outstanding items were an Aeriola Sr. with a good WD11 tube selling at \$360, a Grebe MU1 at \$490, an Atwater Kent 33 desk console at \$220, and a rare Tyreman 50 portable radio with 199 tubes at \$200. A number of very nice large console radios from an estate, includ-



Auctioneer Bill Werzner (with "excited" helper at right) offers a Radiola 20 for sale.

ing Atwater Kents, RCAs, Majestics, etc., sold for the most part at low to moderate prices.

This auction was certainly a "buyers market" in that regard! If you were looking for bargains among the finest of the "boat anchors" and other such sets, this was the kind of auction you would never want to miss.

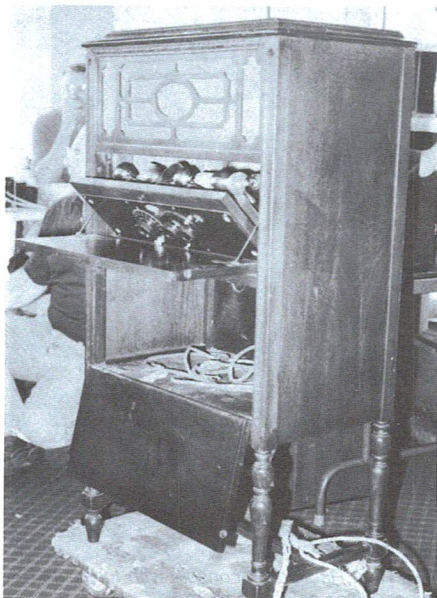
Auction values are rounded down to nearest dollar.

g=good, e=excellent, unk=unknown, BBT=brass-based tipped

**A warning:** Auction prices are not current values. Our selection of auction items is not necessarily complete. A listing such as this cannot adequately include the condition of cabinets, chassis, transformers, tubes, the operating status of the set, and the inclusion of incorrect, restored or replica components, etc. Auction prices are the result of the excitement of the auction process, the skill of the auctioneer and the specific interests of the participants. Nevertheless, auction prices serve as useful references and as another element in the value determining process. The possibility of error always exists, and if we are notified, corrections will be reported.

|   |       |
|---|-------|
| Aeriola Sr., w/WD11 tube .....              | \$360 |
| Aircastle tombstone .....                   | 50    |
| Airline 62-135 tombstone .....              | 50    |
| Airline 62-177 tombstone, wood .....        | 60    |
| Airline white Bakelite .....                | 25    |
| American Bosch 575 tombstone, wood .....    | 45    |
| Amrad console .....                         | 37    |
| Arvin 244P, white, metal .....              | 42    |
| Arvin metal .....                           | 15    |
| Arvin, white, metal .....                   | 40    |
| Astatic D-104 Silver Eagle microphone ..... | 45    |
| Atwater Kent 20 .....                       | 100   |
| Atwater Kent 33 desk console .....          | 220   |
| Atwater Kent 35 .....                       | 20    |
| Atwater Kent 40 console .....               | 25    |



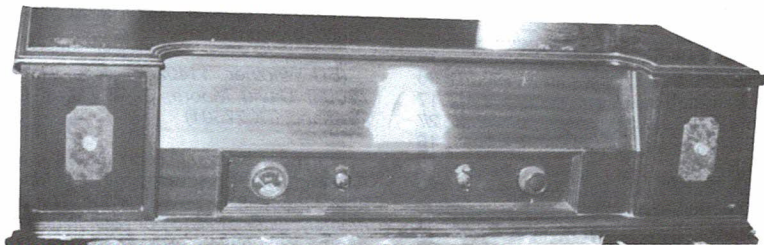


*Housewife's delight! This unusual Atwater Kent in a Pooley highboy cabinet with drop front lid sold for \$220.*

|  |     |
|--|-----|
| Atwater Kent 53, stove .....               | 25  |
| Atwater Kent 60 console .....              | 75  |
| Atwater Kent 89 .....                      | 170 |
| Atwater Kent 856 .....                     | 15  |
| Atwater Kent Type E3 speaker .....         | 15  |
| B&K oscilloscope .....                     | 65  |
| Bendix 636D table, wood .....              | 25  |
| Brunswick speaker .....                    | 60  |
| Capacitors, 0.022 mF, (2) bags .....       | 12  |
| Cathedral cabinet .....                    | 9   |
| Clock radios, box of 6 .....               | 25  |
| Crosley 11A8, Bakelite .....               | 15  |
| Crosley 51 .....                           | 50  |
| Crosley 52 .....                           | 140 |
| Crosley 124 cathedral .....                | 180 |
| Crosley 629 tombstone .....                | 60  |
| Crosley Band Box .....                     | 25  |
| Crosley clock radio .....                  | 32  |
| Crosley showbox, (2) .....                 | 5   |
| Delco tombstone .....                      | 75  |
| Eico VTVM capacitor .....                  | 6   |
| Eico VTVM and Solar capacitor bridge ..... | 7   |

|   |     |
|---|-----|
| Emerson 5-10 table .....                    | 30  |
| Emerson 522, white Bakelite .....           | 42  |
| Emerson, brown Bakelite .....               | 32  |
| Fada KW lowboy .....                        | 110 |
| Firestone Airchief table, wood .....        | 25  |
| Fisher FM tuner .....                       | 140 |
| Fisher speakers, matched pair .....         | 20  |
| GE 150 portable .....                       | 27  |
| GE 321 table, wood .....                    | 20  |
| GE clock radio .....                        | 17  |
| GE, wood, velvet .....                      | 9   |
| Gloritone 3072 cathedral .....              | 130 |
| Gloritone cathedral .....                   | 150 |
| Grebe MU1 .....                             | 490 |
| Guild Spice .....                           | 55  |
| Hallicrafters Civic Patrol .....            | 20  |
| Hallicrafters S-38 E .....                  | 25  |
| Hallicrafters S-120 .....                   | 17  |
| Hallicrafters "World Wide" multi-band ..... | 50  |
| Hallicrafters WR600 .....                   | 10  |
| Hammarlund HQ120 .....                      | 80  |
| Heathkit distortion meter .....             | 2   |
| Heathkit tube checker .....                 | 20  |
| Holland all-band .....                      | 140 |
| Home brew crystal set .....                 | 30  |
| Horn speaker .....                          | 75  |
| Imperial tombstone .....                    | 12  |
| Jensen speaker .....                        | 120 |
| Johnson Viking I transmitter .....          | 50  |
| Johnson Viking phone patch, new .....       | 15  |
| Kennedy modified battery set .....          | 80  |
| Kenwood TS-520, w/microphone .....          | 170 |
| Kodel radio, incomplete .....               | 80  |
| Loop antenna, 1920s .....                   | 150 |
| Majestic 20 console .....                   | 30  |
| Majestic 70B console .....                  | 60  |
| Majestic 71 .....                           | 80  |
| Majestic 71 highboy .....                   | 35  |
| Majestic 90 console .....                   | 30  |
| Majestic 92 console .....                   | 60  |
| Majestic 180 radio/phono console .....      | 37  |
| Majestic console .....                      | 170 |
| McMillian Radio Corp 5004? .....            | 120 |
| McMurdo-Silver R9 antenna tuner .....       | 20  |
| Military tube tester 177-A .....            | 25  |
| Motorola clock radio .....                  | 10  |
| Nordmende, wood .....                       | 65  |
| Novelty, owl, transistor radio .....        | 15  |
| Peerless speaker .....                      | 12  |
| Philco 37-60 .....                          | 55  |
| Philco 37-624 battery set .....             | 25  |
| Philco 38 .....                             | 50  |
| Philco 38-93 tombstone .....                | 65  |

*(Continued on following page)*



*This Zenith 17 AC set and table sold for \$250.*

(HVRA Auction, continued)

|   |                |
|---|----------------|
| Philco 39-30 table, wood .....                | 35             |
| Philco 46-142 battery set .....               | 30             |
| Philco 60 cathedral, Code 121 .....           | 95             |
| Philco 66 .....                               | 22             |
| Philco 70 .....                               | 130            |
| Philco 76 console .....                       | 70             |
| Philco 89 cathedral .....                     | 130            |
| Philco 296 highboy console .....              | 42             |
| Philco 610 tombstone .....                    | 70             |
| Philco D655123 transistor radio .....         | 12             |
| Radio tuner and amp, mfg. unk .....           | 25             |
| Radiodyne chassis .....                       | 32             |
| RCA 28X table, wood .....                     | 45             |
| RCA 100A speaker, (4) .....                   | 25, 35, 35, 37 |
| RCA 1924 superhet .....                       | 50             |
| RCA AR596 console .....                       | 32             |
| RCA MI-6225 microphone .....                  | 180            |
| RCA Radiola 18 .....                          | 80             |
| RCA Radiola 20 .....                          | 210            |
| RCA Radiola 64 .....                          | 55             |
| RCA Radiola 66 .....                          | 47             |
| RCA Radiola 80 Deluxe .....                   | 45             |
| RCA Radiola 100 speaker .....                 | 20             |
| RCA Radiola AR596 console .....               | 37             |
| RCA Radiola horn, no driver .....             | 32             |
| RCA Radiola III .....                         | 110            |
| RCA RF signal generator .....                 | 10             |
| RCA Victor RE-81, w/microphone .....          | 20             |
| Record player, 1930s, children's, metal ..... | 60             |
| Rider, Vol. 6 .....                           | 10             |
| Rider, Vol. 7 .....                           | 12             |
| Rider, Vol. 10 .....                          | 7              |
| Rider, Vol. 12 .....                          | 7              |
| Rider, Vol. 14 .....                          | 7              |
| Rider, Vol. 15, (2) .....                     | 5, 10          |
| Rider, Vols. 3, 4, 5, 6, 7, 8, 9 .....        | 42             |
| Scott 800 upper chassis .....                 | 50             |
| Sears Silvertone clock radio .....            | 5              |
| Sencor tube tester .....                      | 10             |
| Sentinel Bakelite .....                       | 27             |
| Sentinel portable .....                       | 30             |
| Setchel-Carlson, Bakelite .....               | 25             |
| Silvertone, Deco, Bakelite .....              | 60             |
| Simpson volt-ohmmeter .....                   | 20             |
| Sonora A-31 console .....                     | 75             |
| Sony stereo reel recorder .....               | 60             |
| Stewart-Warner speaker .....                  | 35             |
| Stewart-Warner, sideway chassis .....         | 50             |
| Tanglely battery set .....                    | 75             |
| Tapestry speaker, (2) .....                   | 45, 80         |
| Telefunken stereo console .....               | 10             |
| Transistor radios, box .....                  | 12             |
| Trav-Ler, Bakelite .....                      | 37             |
| Trutone D-1002 table, wood .....              | 47             |
| Trutone D-220 console .....                   | 10             |
| Tube(s): 01-A, blue, g .....                  | 37             |
| Tube(s): 01-A, tests g .....                  | 12             |
| Tube(s): 2A3, (1), g .....                    | 20             |
| Tube(s): 6L6, metal, g .....                  | 17             |
| Tube(s): 45, (2), g .....                     | 27             |
| Tube(s): 80, (2) .....                        | 15             |
| Tube(s): pulls, box .....                     | 75             |
| Tube(s): WD-12, BBT, g .....                  | 40             |
| Tyremen 50 portable, e .....                  | 200            |
| Victor R-32, (2) .....                        | 45, 65         |
| Victor RE-45 console .....                    | 55             |
| Victor RE-45 radio/phono .....                | 45             |



*This RCA Radiola 66 console with tubes and in fair condition sold for a mere \$47.*

|  |         |
|--|---------|
| Victor VVXIV phonograph, floor model ..... | 140     |
| Watterson DNP .....                        | 27      |
| Watterson table, wood .....                | 75      |
| Westinghouse H-104 table, wood .....       | 100     |
| Westinghouse H-104A table, wood .....      | 30      |
| Westinghouse H-157 table, wood .....       | 27      |
| Woolaroc (Phillips 66) .....               | 30      |
| Zenith 5D027 table, wood .....             | 40      |
| Zenith 5S217 .....                         | 110     |
| Zenith 6G001Y portable .....               | 37      |
| Zenith 7F01, Bakelite .....                | 22      |
| Zenith 7S629 table, black-dial .....       | 80      |
| Zenith 7S633R, wood .....                  | 140     |
| Zenith 10S689 .....                        | 40      |
| Zenith 17 w/table and AC power .....       | 250     |
| Zenith AM/FM, Bakelite .....               | 25      |
| Zenith chairside .....                     | 120     |
| Zenith clock radio .....                   | 22      |
| Zenith console, late 1920s .....           | 240     |
| Zenith H500 Trans-Oceanic, (2) .....       | 20, 110 |
| Zenith H511, Bakelite .....                | 47      |
| Zenith H615Z, Bakelite .....               | 35      |
| Zenith Trans-Oceanic .....                 | 22      |
| Zenith Trans-Oceanic .....                 | 130     |
| Zenith Trans-Oceanic 500 .....             | 50      |
| Zenith Trans-Oceanic Royal 3000, (2) ..... | 50, 55  |
| Zenith, brown Bakelite .....               | 27      |

*(Bill Werzner, 11402 Endicott, Houston, TX 77035; David Moore, 3212 Regal Oaks St., Pearland, TX 77501)*

*For more information on the Houston Radio Association (HVRA), write to David Moore at the above address. HVRA publishes "The Grid Leak" monthly. Dues are \$15 per year. In addition to the annual convention with AWA, the club holds monthly meetings and special regional events.*



# Robert Arner Auction

## Kempton, Pennsylvania — February 27, 1998

REPORTED BY RAY CHASE

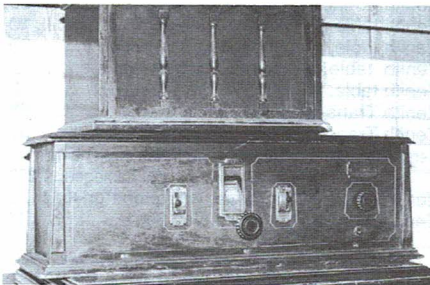
Robert A. Arner held a general auction, which contained approximately 200 lots of radio equipment, on February 28, 1998, at Kempton Community Center, Kempton, Pennsylvania. This was Part 2 of the Joseph Kanuski radio collection numbering over 1,000 radios. I missed Part 1 held about three weeks earlier. Part 3 was held on March 21 at Mahoning Valley Firehouse. Part 4 has not been scheduled yet. Apparently the auctioneer is mixing this collection in with other goods at his regular auctions.

Joseph Kanuski was a radio and TV repairman who amassed a houseful of radios, test equipment, and parts. Many of the radios were not in the best of shape and no restoration was evident. There was a large quantity of common, postwar, plastic table radios, lots of worn out test equipment and some parts. There were no paper goods and only one or two desirable boxes of tubes among the dozen or so available.

The next two auctions will probably be more of the same type of material. The auction started at 3:00 P.M. with the radios being mixed in with other goods throughout the sale, which ended about 7:30 P.M. Towards the end of the sale, common radios were being sold in batches of 5 to 10 and finally were sold by the table load. Several tables full of miscellaneous junkers and parts were sold at this point but not recorded.

This auctioneer does not charge a buyer's premium so prices listed are the prices paid. All prices have been rounded down to the nearest dollar.

|   |     |
|---|-----|
| Air King table, 4 knobs, g .....  | 22  |
| Airline battery set, single-dial, slant-front g ....                    | 80  |
| All American battery set, NT, pot metal (?) ....                        | 46  |
| American Bosch table, small, wood .....                                 | 36  |
| Atwater Kent 20 big box, WT, g .....                                    | 47  |
| Atwater Kent 20 small box, WT, dealer name<br>stenciled on top, g ..... | 130 |
| Atwater Kent 55 coffin, f .....   | 18  |
| Atwater Kent E speaker, f .....   | 38  |

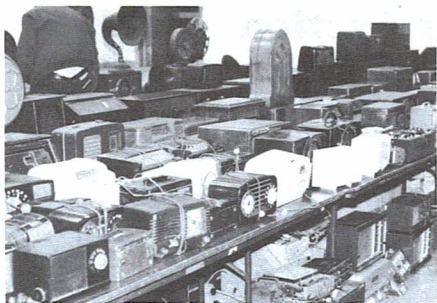


This Metrodyne receiver sold for \$45, while the Magnavox cabinet speaker above sold for \$28.

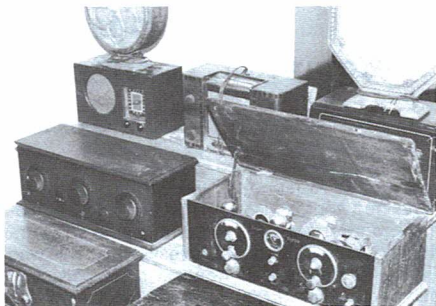


Auctioneer Robert A. Arner taking bids on a Hallicrafters receiver.

|   |       |
|---|-------|
| Atwater Kent horn, f .....  | 70    |
| Atwater Kent L speaker, f .....   | 22    |
| Atwater Kent L speaker, g .....   | 45    |
| Battery eliminators (Atwater Kent Eliminator?),<br>w/auto radio parts, box .....  | 105   |
| Battery set, 3-dialer, marked "Feldstern McCus-<br>key, Philadelphia," no cabinet, has 3 square<br>modules, contains most components, very<br>unusual ..... | 55    |
| Battery set, 3-dialer, WT, f .....  | 20    |
| Cleartone table, early AC set, large, p .....   | 21    |
| Crosley Musicone speaker, g .....   | 22    |
| Crosley portable 6" TV, early leatherette , vg  | 115   |
| Crosley table, white plastic, 50s, very dirty ....  | 16    |
| Crosley table, wood, 3 knobs, 30s , vg .....  | 39    |
| Crosley tombstone, 4 knobs, f .....   | 60    |
| Dominaire 3-dialer (looks like Freshman), in<br>large cabinet with 2 speaker grilles, f .....   | 40    |
| Dukane table speaker, wood, ornate grille,<br>small delamination .....  | 40    |
| Elkon, Deco, white plastic, 2 knobs, p .....  | 65    |
| Emerson portable, fabric-covered, prewar, no<br>handle, f, (2) .....  | 8, 18 |
| Emerson table radio/phono, wood .....   | 8     |
| Emerson table radio/phono, wood, 40s or 50s, g ...  | 19    |
| Emerson table, brown plastic, 2 knobs, g .....  | 15    |
| Emerson table, plastic, 2 knobs, f .....  | 12    |
| Emerson table, plastic, 50s, f .....  | 15    |
| Emerson table, wood, 2 knobs, g .....   | 15    |
| Emerson table, wood, 3 knobs .....  | 17    |
| Firestone table, wood, f .....  | 22    |
| Freed Eisemann FE-16, WT, g .....   | 85    |
| Freshman Masterpiece, NT, g .....   | 15    |
| GE wood table, 3 knobs, handles on sides,<br>ornate 40s or 50s, g .....   | 22    |
| German table (Grundig or Blaupunkt), 50s, g   | 80    |
| Hallicrafters S41, p .....  | 20    |



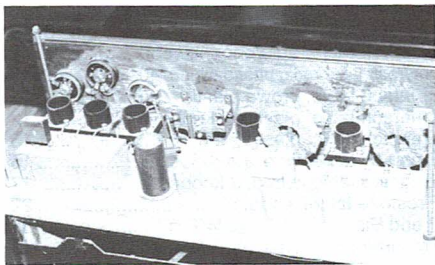
A view of some of the battery and AC radio items for sale, consisting of wood, plastic and Bakelite—dating from the '20s to the '60s. Speakers were also up for bids.



Included in this view is the Freshman Master-piece battery set (left) selling at \$15, and the Premier Ensemble 2-dialer (right) selling at \$30.

|  |        |
|--|--------|
| Hallcrafters SX99, f .....   | 30     |
| Hickock tube tester, large, leatherette-lined, g ..                | 95     |
| Home brew 3 dialer, NT, f .....                                    | 22     |
| Home brew, 2-dialer .....  | 11     |
| Home brew, NT, p .....   | 15     |
| Home brew, wood case, one dial .....                               | 32     |
| Home brew, WT .....  | 25     |
| Home-brew battery radio, case g .....                              | 40     |
| Home-brew battery superhet, p .....                                | 25     |
| Horn speaker, bell and neck only, (2), f ...                       | 12, 16 |
| Horn speaker, bell and neck only, p .....                          | 14     |
| Large German table (Grundig or Blaupunkt), f ...                   | 100    |
| Magnavox speaker, wood case, g .....                               | 28     |
| Majestic console, w/doors, g .....                                 | 35     |
| Metrodyne battery set, WT, pot metal problems, f ...               | 45     |
| Military fabric helmet, w/head phones (tank or aircraft), g .....  | 37     |
| Military tube tester I-77, w/paper, g .....                        | 26     |
| Motorola table, wood, gold trim, 2 knobs, f ....                   | 12     |
| National communications receiver, model unk, 40's (?), f .....     | 11     |
| Normandie table, white plastic, 50s, f .....                       | 12     |
| Peerless cathedral speaker, g .....                                | 20     |
| Philco console, p .....  | 30     |
| Philco table, brown plastic, 2 knobs, (2) ...                      | 18, 20 |
| Philco table, brown plastic, 3 knobs, 50s .....                    | 18     |
| Philco table, plastic, 50s modern look, vg .....                   | 44     |
| Philco, 50s, 3 knobs .....   | 19     |
| Premier Ensemble 2 dialer, WT .....                                | 30     |
| Pyramid speaker, wood, cathedral style, some delamination, f ..... | 16     |
| RCA console, f .....   | 10     |

|   |                        |
|---|------------------------|
| RCA FM tuner, brown plastic .....   | 25                     |
| RCA large wood case, 50s, w/gold trim, g .....  | 20                     |
| RCA Radiola console, w/tapestry grille but pot metal problems in tuner, g .....                   | 25                     |
| RCA table, wood, 3 knobs, 40s, g .....  | 32                     |
| RCA table, wood, 30s, chrome trim, g .....  | 25                     |
| RCA 103 tapestry speaker, g .....   | 52                     |
| RCA 103 tapestry speaker, non-original grille cloth, g ..   | 52                     |
| RCA UZ-1325 horn, g .....   | 97                     |
| RCA white plastic, 40s or 50s, f .....  | 13                     |
| Silvertone console, 4 knobs, p .....  | 4                      |
| Silvertone console, large, big dial, p .....  | 5                      |
| Silvertone table, 40s or 50s, g .....   | 24                     |
| Silvertone table, farm radio, wood, f .....   | 16                     |
| Silvertone table, wood, 2 knobs missing, f .....  | 22                     |
| Silvertone table, wood, 2 knobs, 30s, g .....   | 12                     |
| Silvertone table, wood, 4 knobs, 50s, f .....   | 14                     |
| Silvertone table, wood, 30s, 1 knob missing, g ...  | 22                     |
| Sonora table radio/phono, wood, 2 knobs, f ...  | 16                     |
| Stromberg-Carlson table, large, wood, 50s, g  | 14                     |
| Teletone table, wood, 30s, 2 knobs, g .....   | 18                     |
| Temple table, wood, 30s or 40s, f .....   | 20                     |
| Tube tester, wood case, g .....   | 17                     |
| Tube(s): (3) boxes .....  | 9                      |
| Tube(s): (6) boxes .....  | 5, 16, 36, 40, 65, 110 |
| Tube(s): 201, (35-40) .....   | 180                    |
| Tube(s): AC types, big pin, box .....   | 27                     |
| Westinghouse table, wood, w/nice mesh grille  | 10                     |
| Weston set analyzer, 2 meters, g .....  | 17                     |
| Weston tube tester, large wood case, 2 meters, g.   | 17                     |
| Zenith 11-12 battery set, NT, g .....   | 85                     |
| Zenith clock radio, 50s .....   | 9                      |
| Zenith portable, fabric-covered, 50s, f .....   | 20                     |
| Zenith table radio/phono, plastic, f .....  | 10                     |
| Zenith table, brown plastic, 50s, AM/FM .....   | 20                     |
| Zenith table, brown plastic, big dial, 50s, g ...   | 22                     |
| Zenith table, plastic, 50s, 3 knobs, g .....  | 22                     |
| Zenith Trans-Oceanic, black, g .....  | 85                     |
| Zenith Trans-Oceanic, brown leather, g .....  | 50                     |
| Zenith Trans-Oceanic, early model with airplane grille, dirty, looks complete and not damaged ... | 200                    |
| Zenith Universal portable, w/airplane grille, g   | 12                     |
| Zenith, brown plastic, big dial, 50s .....  | 22                     |



This unique 3-dialer battery set is marked "Feldstern McCuskey, Philadelphia." Without the cabinet it brought a bid of \$55.

(Robert A. Arner, Auctioneer, Pine Hill Rd., Route 2, Box 216, New Ringgold, PA 17960-9407; Ray Chase, 1350 Marlborough Ave., Plainfield, NJ 07060)



# RESTORATION TOPICS

## Measuring Capacitor ESR

BY ALAN DOUGLAS

ESR — equivalent series resistance — meters are being promoted now for troubleshooting of switching power supplies, whose capacitors fail by overheating and drying out, not from low capacitance or excessive leakage.

There are at least three ESR testers available. Two are from Creative Electronics and Capacitor Wizard, and one from Dick Smith Electronics in kit form. The first two testers apply 25 millivolts at 100 kHz to the capacitor under test and read out the equivalent series resistance directly on a panel meter. These testers can be used in-circuit since 25 mV is not enough to turn on semiconductor junctions. The Dick Smith model uses 100 mV and also works in-circuit.

An ESR meter would be ideal for checking electrolytics in transistor radios or in older tube equipment. I prefer to leave the original components in place wherever possible, especially if the equipment or radio will only get a quick test to see how it works. I wouldn't have to unsolder or remove anything for an ESR test.

Being a certified cheapskate, I wondered if there wasn't some lash-up that I could make with my existing test equipment that would also measure ESR. I came up with the arrangement shown in the block diagram in Figure 1, using only my HP 651B test oscillator and Fluke 79 digital voltmeter (DVM). With the test oscillator set at 100 kHz, my setup reads out directly in ohms. A 1  $\mu$ F DC blocking capacitor could be added if desired. Since I'm not working on live equipment, I didn't bother.

My test setup depends on the 600-ohm source impedance of the oscillator. To calibrate the setup, I attach the test leads to a decade box set to 50 ohms and adjust the oscillator's output to give 50 millivolts on the DVM. Then, in theory, a one mV reading on the DVM equals one ohm ESR ( $R=E/I$ ). Actually the Fluke's frequency response is poor at 100 kHz, so it doesn't register much below 10 mV, but in practice the bad capacitors show much more than this, and are easy to spot. Figure 2 shows a capacitor under test. The HP signal generator is shown at the top of the equipment rack. The Fluke DVM is the small unit at the right side of the photo.

All capacitors have an inherent reactance (resistance) which depends on frequency. At 100 kHz, the reactance is about 0.16 ohms for a 10  $\mu$ F capacitor and 1.6 ohms for a 1  $\mu$ F capacitor. [Reactance =  $1/(2\pi FC)$  where frequency (F) is in mHz and capacitance (C) is in  $\mu$ F.] Any resistance over these values is the result of ESR and results in degraded capacitor performance.

A run through my junk box revealed more than 60 electrolytics, many new-old-stock that had no business being there. Most of them did check obviously bad on a capacitance bridge, but the ESR test is much, much faster. I tried re-forming some of the high-ESR capacitors to

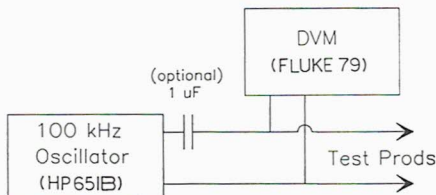


Figure 1. This block diagram shows a hook up for measuring ESR using a HP651 test oscillator and Fluke 79 digital voltmeter.

see what would happen, and a few did "heal" themselves when DC was applied. Evidently these have corroded internal connections and would not be caught by a conventional test. Some read OK if the terminal lugs were wiggled, and I also found one fairly new electrolytic with an intermittent riveted negative lead that was visually perfect.

Thanks to Geoff Fors of Monterey, California, for bringing the Creative Electronics ad and ESR meters to my attention.

ESR meter sources: Creative Electronics, 1417 N. Selfridge, Clawson MI 48017, \$199 ppd.; Capacitor Wizard, Independence Electronics, 119 S. Main, Independence, MO 64050, \$179.95; Dick Smith (a kit, much less expensive but from Australia. For info try the developer, Bob Parker at [www.ozemail.com.au/~bob-par/esrtext](http://www.ozemail.com.au/~bob-par/esrtext).)

(Alan Douglas, P.O. Box 225, Pocasset MA 02559)

Alan Douglas, an electrical engineer, has written over 100 articles for A.R.C. and other publications. His books "Radio Manufacturers of the 1920s," Volumes 1, 2, and 3, are highly regarded resources for the radio-collecting community.

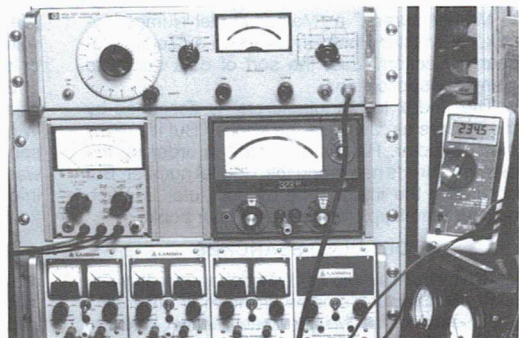


Figure 2. A capacitor under test with the HP signal generator at the top of the equipment rack and the Fluke digital voltmeter at the right of the photo.



## Collector's Guide to Antique Radios — Combined CD-ROM Edition

By Marty & Sue Bunis and George Kaczowka

REVIEWED BY RAY BINTLIFF

All of the information contained in the four book editions of the Bunis *Collector's Guide*, along with additional information and features, is now available in CD-ROM format. This CD was produced by Marty and Sue Bunis and an added team member, George Kaczowka. Marty and Sue are well known to radio collectors, and George Kaczowka (pronounce the "K" and then mumble a bit, according to George) is about to become a household name as the result of his contributions to their excellent product.

This CD-ROM edition features all of the photos and descriptive material for the radios that appeared in the four editions of their *Collector's Guide*. Some models that appeared in the earlier editions were dropped from the fourth edition, but they have been included in the CD. Only tube-type radios

now appear in this CD version. The great interest in transistor radios now justifies separate publications.

Like the book versions, the CD includes sections on the "Explanation of Pricing" and "Basic Radio Terms."

The CD contains more than 1,800 color photographs and pricing for over 9,000 models.

Thus far, the CD edition may seem to be just a combination of the four printed editions. However, it gets even better. The CD also contains an "Index to Manufacturers," a "Master Model Number Index," a "Master Photo Index," and a "Zenith Research Section." Just the sort of data suited to computer applications.

The "Index to Manufacturers" is described by the authors as "Just like the books!" But it's really much handier. Radios are listed in order by the manufacturer's name and then model number. But accessing the information by computer is much quicker than flipping through the four books.

### DETAILED SEARCHES

Do you have a radio with a model number only and is the manufacturer's name unknown or uncertain? Try a search of the "Master Model Number Index" to locate the model number and then call up its descriptive page. This search capability is an excellent example of a made-for-computer application.

OK, but what if you have a radio without any identification? Then it is time to try the "Master Model Index." This index is organized by model type (floor, table or portable) and provides a small "thumbnail" picture for each of approximately 1,800 radios. Just click on any thumbnail picture to see

the radio's detailed description page that includes a large picture.

Zenith buffs will be happy to see the "Zenith Research Section." By using the data in the "Chassis Index," a particular radio can be tracked down by either chassis number, model number or serial number. More than 350 chassis numbers are covered. Possible uses for this section include: determining the model number — if you know the serial number; finding the radio's tube complement and Intermediate Fre-

quency; and obtaining a list of other models that used the same, or similar, chassis. The index also provides references to Zenith and Rider manuals.

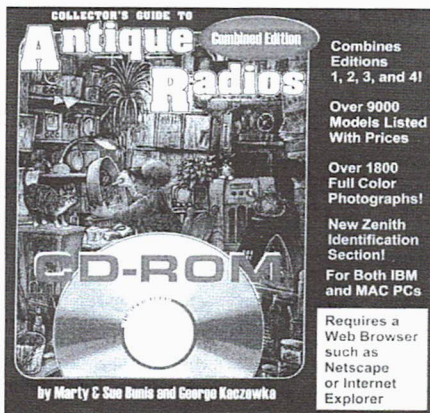
### INSTALLATION AND USE

Frankly, I dread installing new software on my computer. Sometimes the task is most unpleasant. But installing this CD is a cinch. It is designed to run on both IBM-compatible and MAC PCs that have a Web Browser installed. The authors list Netscape (Version 2.02) and Microsoft Internet Explorer as suitable browsers. Version 4.0 of the Microsoft browser is recommended based on user feedback.

Some difficulty may be experienced when using version 3.0. With my IBM-compatible PC running Windows 95 and version 4.0, it was only necessary to pop the CD into the machine and the CD was up and running. Using the program to find information and to move through its various sections proved to be simple and intuitive.

Contents of the CD, including pictures, can be printed simply by clicking the "Print" icon. There are some restrictions, so keep in mind that you are printing copyrighted material and treat it as such.

[When traveling to meets, your editor has already discovered that the Bunis CD is much easier to pack than four books. Using his MacIntosh PowerBook laptop computer, he experienced no





difficulty accessing price info and photos.]

How does the CD stack up against the book versions? Some answers are obvious. Reduced storage space as compared to the four printed volumes is one clear advantage. Is your bookcase groaning under the load too? The ability to search for specific information and the speed at which information can be accessed are significant advantages. It is very convenient to be able to print information on the spot and not have to locate a copy machine. Some of the picture printouts are larger than those that appear in the book version - a nice fringe benefit.

However, unless you are fortunate enough to own a laptop, what do you do when attending an auction or flea market? And what about those trips down antique alley? It would seem that the book

versions will continue to serve a purpose for some time to come. And books don't have batteries that run down. Each medium has certain advantages, so the answer seems to be to own both. Run the CD at home and keep the books in your car — right now they never seem to be there when you need them.

Looking over the field of price guides, it seems to me that the Bunis/Kaczowka team has produced a very comprehensive and useful pictorial radio price guide

*The Collector's Guide to Antique Radios — Combined CD-ROM Edition* may be ordered from Marty Bunis, 32 West Main St., Bradford, NH 03221. It is \$39.95, plus \$3 for U.S. Priority mail or \$3.75 for overseas air mail.

(Ray Bintliff, 2 Powder Horn Lane, Acton, MA 01720. E-Mail: w1ry@msn.com)

## Access to the Airwaves: My Fight for Free Radio

by Allan H. Weiner as told to Anita Louise McCormick

REVIEWED BY JERRY BERG

As most any weekend check of 6955 kHz will show, U.S. pirate radio is alive and well. Unlike the European pirates, whose operations resulted at least in part from government monopolies that foreclosed development of a private broadcasting industry, pirate radio in the United States has basically been kids playing radio.

Allan Weiner is one of the older kids, having put a number of well-known pirate operations on the air over his 45 years. These operations include, arguably, the most famous of them all — Radio New York International (RNI), which, in 1987, broadcast from a ship off the east coast, drawing the attention of much of the national media in the process.

The details of Weiner's pirate operations are the best part of this book, which is otherwise a chronological account of Weiner's personal life, with an emphasis on his pirate radio activities. As Weiner puts it, "My story is one of a lifelong fascination with the art and science of communicating by means of radiant energy transmitted through space in the form of radio waves." However, he also observes, "If there's anything I don't like in my life, it's being told what to do." Therein is the heart of the problem that has put him at odds with the FCC over the years.

Whatever one might think of pirate broadcasting, Weiner's commitment to it certainly is genuine. He put his first station on the air when he was fifteen, and one cannot read the accounts of his many subsequent efforts, including the outfitting of the *M/V Sarah* (home of RNI), without being impressed by his intelligence and industry.

Indeed, Weiner's considerable skill in turning junk into radio stations has permitted him to earn his living in the broadcasting industry, both as engineer and station owner. His energy and enthusiasm

continue unabated, for, while not described in the book, it is well known that he has assisted in outfitting another radio ship, the *Electra*, soon to depart Boston for an unknown Caribbean destination.

At least some of Weiner's prior trespasses appear to have been forgiven. Recently, the FCC granted him a construction permit for a 50,000-watt shortwave station on his farm in Monticello, Maine, with call letters WBCQ. He hopes to have the station on the air by late summer/early fall.

There are some serious topics in pirate-related broadcasting, including the inherent constraints on the little guy from the high cost of licensed broadcasting, the feasibility of a hobby broadcasting band, and FCC enforcement policy toward pirate broadcasters (pretty lax of late). Unfortunately, these subjects are not dealt with in any analytical way in this book. Neither is Weiner's basic argument that FCC licensing policies have abridged his free speech and personal liberties. However, if you are interested just in knowing a

little more about one of the longer running David and Goliath tales of pirate broadcasting, this book will give you Weiner's side of the story.

*Access to the Airwaves: My Fight for Free Radio* by Allan H Weiner, as told to Anita Louise McCormick, is available in soft cover, 5 1/2" x 8 1/2" format, at \$17.95, plus \$4.95 shipping and handling. You may order it from the publisher, Loompanics Unlimited, P.O. Box 1197, Port Townsend, WA 98368. Visa and MasterCard are accepted by mail and by phone. 1-(800)-380-2230.

(Jerry Berg, 38 Eastern Ave., Lexington, MA 02173. jberg@tiac.net)





# RADIO MISCELLANEA

"Radio Miscellanea" includes items of general interest selected from A.R.C.'s incoming correspondence. "In The Marketplace" items are based on information submitted by the businesses themselves. "From The Internet" items are obtained from internet newsgroups and other internet resources. Submitted items should be verified for accuracy; items may be edited by A.R.C. for publication, and publication is not guaranteed. See the masthead for more details.

## Cool April Fool Cover

Dear Editor:

All right youse guys!

My wife already thinks I'm a bit of a nut. Now you fool me with that Chinese transmitting tube. I told her all about it — it was sooo cool! You should've heard her laugh when she found out it was a vase!

Oh, well. I've got the radio bug and it's incurable. It was a good one! Look forward to your next issue.

Jim Fals, Eureka, CA

## LA Wireless Shop Info Wanted

Dear Editor:

I am doing a story on the Wireless Shop of Los Angeles, 1910-1933. This company has a unique history of radio parts, kits and sets. I'd like to hear from collectors with literature about or radio sets from the Wireless Shop. Of interest is the 1925-1933 period, as well as the early years.

Both Jerry Finamore on the East Coast and Stew Oliver on the West Coast have been very helpful in supplying information and photos, particularly of the 1910-1923 era. I'm hoping to fill in some voids.

Floyd A. Paul, 1545 Raymond, Glendale, CA 91201

## Swan or Peacock?



Dear Editor:

Thanks very much for the Jackson Bell Model 62 article in the March 1998 issue. Bunis 4 agrees with calling this design [left above] a "swan." But, Mark Stein in *Machine Age to Jet Age, Vol. II* identifies it as a "peacock." I agree with Stein that this grille design resembles a peacock with its tail feathers spread more than a swan whose tail feathers lay close to its rear body.

I enjoy A.R.C. very much. Keep up the good work. Willard Smith, Bedford IN

Dear Editor:

I loved Richard Arnold's article on the Jackson Bell Model 62 with the swan grille. The article's reference to a second type of "swan" grille undoubtedly refers to sets with what is considered to be a "peacock" grille [right above.] Check out Frank Heathcote's article on the Model 62 with a "peacock" grille in the April 1985 A.R.C.

I love my Model 62 and consider it one of the most attractive of the 1930-1931 Gothic midget sets.

Dale Davenport, Fort Worth, AR

*It's great to know that a very early A.R.C. article sticks in the memory. (Editor)*

## A.R.C. on the Internet — Pro & Con

Dear Editor:

I have mentioned it before, but guess it was a few years before its time. There are several ways to put A.R.C. in its entirety on the web where only subscribers could have access — using a Newscape commerce server is the easiest. An alternative would be to post the articles on the web and use a mailing list for the classifieds. Either one would eliminate the biggest problem with A.R.C. — the perception of "favored zip codes."

A. Padgett Peterson, padgett@gdi.net

*I agree, the technology is there. We are hesitant, however, to put the classified ads online because over 70 percent of our readers do not access the internet. Also, it is very difficult to obtain sufficient revenue from the site to cover the cost of maintaining it. This is an ongoing debate for us, and we continue to consider solutions that are fair to all.*

*As for "favored zip codes," delivery speed is entirely a U.S. Postal Service issue, and our studies show that different zip codes are "favored" each month. There is not enough consistency in delivery times to merit staggering mailings other than mailing local issues a day later than the rest of the country, as we do. (Editor)*

Dear Editor:

In response to Edward Herrschaff's letter in the April A.R.C. regarding the Internet, I sell only to those who do *not* have internet capabilities. Why? Because many are being treated like second class collectors. I have recently sold an Emerson Stradivarius, an early transistor, and a breadboard — satisfactory dealings, and I have more to sell. Snail mail is still effective.

Milt Faivre, Vero Beach, FL

*Certainly there are criteria for choosing potential buyers — friends, collectors you've met at radio events, geographic proximity, credit worthiness — but eliminating over 20 percent of your market might be short-sighted. On the other hand, "to each his own" is still a good maxim. (Editor)*

## More on the 1L6 Circuit

Dear Editor:

RE: The Type 1L6 tube substitute article in the March A.R.C.: Some Trans-Oceanic-like, multiband radios employed 1R5 tubes; others, 1L6 tubes. Zenith also sold AM/BC, band-only radios that used a 1L6 instead of a 1R5; for example, the fabric-covered, wood-cased, "flip-up dial" Model G503, chassis 5G41, battery/AC set, mfg. 1950, used a 1L6 tube. The similar styrene plastic version used a 1A5 tube. Yet, an earlier (red) styrene plastic, coat-pocket, battery-only set also used a 1L6 tube in place of a 1A5. Others are likely — a search of battery-tube radios by Zenith and other makers is in order.

Jim Farago, Minneapolis, MN



# CLASSIFIED ADVERTISING POLICY

**ONE FREE 20-WORD AD** for subscribers in each issue; additional words are 29¢ each. See details below. Classified ads sent by mail, fax or by any other method must be received (not just postmarked!) by **Noon Eastern Time** on the classified ad deadline date to guarantee inclusion in the current issue. Late ads are held for the following issue. Please enclose correct payment with all ads. Stamps or cash are OK for small amounts. (Canadian and other foreign advertisers, please see "Payment" on page 2 for methods.) "Free words" cannot be accumulated from month to month; free words must be requested when ad is submitted.

**Faxed & e-mailed ads:** Please see additional information on the inside front cover.

**When including ads with other A.R.C. correspondence, write the ads on a separate piece of paper.** Include SUB# with ad. Ads may be sent in advance; but, write each ad on a separate piece of paper and indicate the month (or successive two months) you want the ad to run.

**To minimize our typing errors: Please write legibly.** Use both capital and small letters. Do not use a dash between words. Carefully write the following numbers and letters (especially in model numbers) since some can look alike; for example 1, l and I (the number one, the capital i and the small L.) Also: 0, O, o, Q and D; r and n; 6, b and G; V, U, u, v and Y; A and R; 5, S and s; 2, Z and z. We try to correct spelling errors, so when using an uncommon word or manufacturer which we might mistake as a more common word or manufacturer, note it so that we do not "correct" it. Editor's annotations are in [brackets].

**Advertising is accepted only for early items related to radio, communication, etc. All items must be described fairly; reproductions, reprints and not-original items must be so identified. Advertisers must agree to respond promptly to inquiries and orders, to resolve problems promptly if the buyer is not satisfied, and to comply with a buyer's refund request on unaltered returned items.**

The publisher reserves the right to edit ads without notification to the advertiser and to reject ads for any reason. Names other than the advertiser will be edited out of ads. Ads with non-radio-related items will be returned or edited unless the non-radio-related items are for trade of radio-related items, or they are incidental to and appear at the end of an otherwise acceptable ad. The publisher is not responsible for errors due to illegibly written ads or for any other reason.

**Clubs:** Since club activities receive free coverage on the *Coming Radio Events* pages, the free 20 words may not be used for club activity ads. See inside front cover for additional information.

## CLASSIFIED AD DETAILS

**Deadline: NOON ET— 10th of the month!**

Classified ads must have a standard heading such as **WANTED, FOR SALE, FOR TRADE, FOR SALE/TRADE, SERVICES, MESSAGE, HELP, AUCTION, MEET, etc.** This heading is the only bold or all-capitalized words allowed in the ad. Capitalize only manufacturer names, model names, etc. This standard ad format makes scanning the ads easier.

Before writing your ad, please look over the ads in a recent issue of A.R.C., and try to write your ad in the same style. Full name (or company name) and address is required in all classified ads; we will add it if you forget.

To encourage varied content of the ads, the same classified ad may be run only once per issue and for only two consecutive months. (To run an ad longer, use a boxed classified or display ad.)

### Classified Ad Rates per Month

Subscribers:

First 20 words: **FREE\***

29¢ per word for extra words over 20 **plus**

10¢ per word for a shaded ad (count all words including free words).

\* Subscribers may take 20 free words on only **one** ad each month.

Non-Subscribers:

47¢ per word **plus**

10¢ per word for shaded ad.

Please do not forget to send in the extra 29¢ per word when your classified ad runs over the free 20 words; your payment will be appreciated, and it will help to keep A.R.C. healthy.

## BOXED CLASSIFIED AD DETAILS

**Deadline: 1st of the month!**

Boxed classified ads can run unchanged for three months or more. No words are free. Ads may be shaded and may include bold and all-capitalized words freely. The ad need not begin with "For Sale," etc. Minimum run is 3 months, prepaid. Discount: 10% for 6 months; 20% for 12 months.

### Boxed Classified Ad Rates per Month

Nonshaded ads:

40¢ per word for all words,\* none free, **plus**

10¢ per word for each bold word **plus**

10¢ per word for each all-caps word.

Shaded Ads (All words are bold at no charge):

50¢ per word for all words\* **plus**

10¢ per word for each all-caps word.

Non-Subscribers:

Add 20¢ per word to above costs.

\*Three words can be bold-all-caps at no extra charge.

## PHOTO & DRAWING DETAILS

**Deadline: 1st of the month**

**for all ads with drawings or photos!**

Drawings and photos are encouraged as the response to your ad is much larger and the reader knows better what you want or are selling. Send in your drawing or photograph, and A.R.C. will reduce it or enlarge it as needed.

### Photo and Drawing Rates per Month

\$23.00 per month for each photo or drawing

(If ad is canceled, this amount cannot always be refunded.)

## CHANGES & CANCELLATIONS

Please check your ads carefully before sending them in. Once ads are received, it is not always possible to refund the amount sent, pull the ad or make changes.

## IMPORTANT — COUNTING WORDS — IMPORTANT

The **standard headings:** WANTED, FOR SALE, etc., count as **one word** each time used in an ad. **Name, address** and (one) **telephone number**, count as **6 words**, regardless of length. Ham call letters and business name can be included in the 6 words and do not count extra. Full name (or company name) and address is required in all classified ads. Each additional word, abbreviation, model number or number group, extra telephone numbers, fax, e-mail, etc. count as one word each. Hyphenated words count as two words.



PERIODICALS

A.R.C., P.O. Box 2, CARLISLE, MA 01741  
ADDRESS SERVICE REQUESTED

**CLASSIFIED AD  
DEADLINE MAY 10th  
Noon Eastern Time**