

OUR 15TH YEAR!

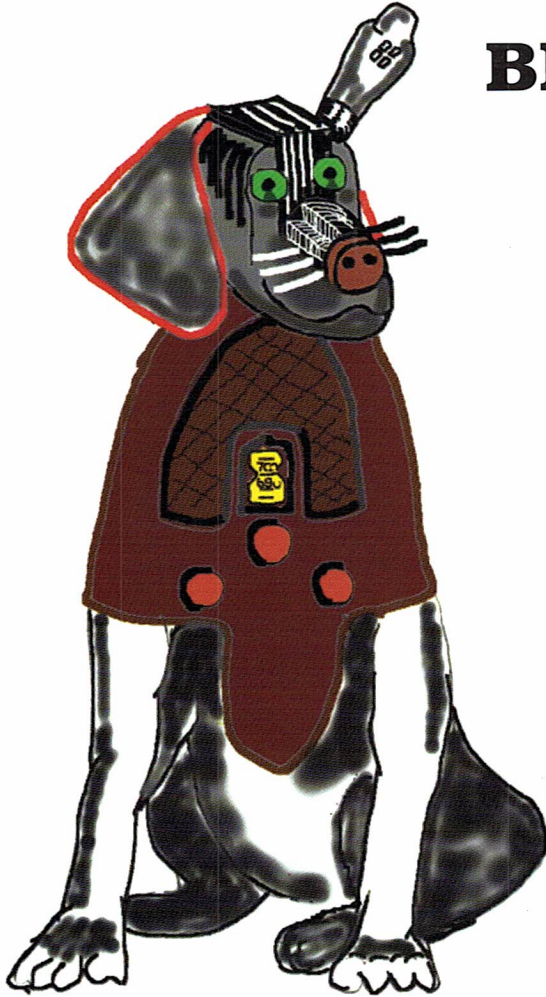
ANTIQUE RADIO CLASSIFIED



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NUMBER 8



**BEWARE
THE
DOG!**

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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	74.00	197.00	342.00	595.00	19.00†
	38.00	101.00	177.00	305.00	9.00†
	not avail.	53.00	90.00	159.00	7.00†
	not avail.	68.00	118.00	205.00	7.00†



ANTIQUE RADIO CLASSIFIED



EDITOR'S COMMENTS

When Fred Geer's article — "Radios That Are Dogs" — arrived a few months ago, it immediately seemed right for August. Why? Because the phrase "dog days" leaped to mind. Little did we know then how right the choice would be for so many of you enduring the heat and fire hazards across the country this summer.

A little sleuthing revealed that the expression "dog days" survives from the Ancient Roman belief that the hottest part of the year was associated with the rising of Sirius, the Dog Star. The name "Sirius" comes from the Greek meaning "sparkling" or "scorching" — even more appropriate, wouldn't you say?

But, Fred's article will help to get your mind off these "dog days" and start you thinking more positively about what to do with those radios in your collection that are really DOGS. Working with basic test equipment, Fred encourages you to revisit those sets that you have given up on and allowed to molder on shelves. "Be dogged" would surely be Fred's motto.

As a prelude to the AWA Conference in September, we present our A.R.C. staff representative there — Bobby Lyman — in a *Staff Profile*. Bobby is well known to those of you who have attended the conference for many years, so this is a perfect time to tell you more about her.

Wally Worth often comes up with interesting articles about New England radio companies. This time he tells of the evolution of Browning-Drake radios from the early kit days to manufactured sets. The story follows two Harvard researchers, Browning and Drake, through their development of a more efficient transformer, to their collaboration with the National Company, and finally to the founding of the Browning-Drake Corp.

Many of you may be unaware of the controversy that has existed since the publication of the first Bryant and Cones' book on Zenith. Specifically, it involves differences of opinion between the authors and Alan Douglas, author of the 3-volume series *Radio Manufacturers of the 1920's*. Since the controversy has continued with the publication of the second Zenith book, we have decided to provide a forum for the debate. We begin with Alan Douglas' side of the argument and invite others to join the discussion.

Our plan to reprint a page from A.R.C.'s first year during this, our fifteenth year, continues with Frank Heathcote's popular *The Collectors Corner*. Before he became distracted from radios by car restoration, Frank contributed more than 30 of these popular radio columns to A.R.C.

With information from military and engineering manuals provided by Anton George, Ray Bintliff has made sense of the seemingly random codes identifying military equipment — from communications receivers to jeeps to pigeons! Called the "Joint Army-Navy or AN Nomenclature System," it is perhaps well known to military equipment collectors. However, our article concentrates on the subset of the system likely to be helpful to the radio collector.

Our thanks to Larry Babcock for an article about the Niagara Frontier Wireless Association's exhibit at the Amherst Museum in Erie County, New York. The exhibit scans the mechanical-to-electronic history of TV, and celebrates the golden anniversary of local TV in the Buffalo area. Opening at the club's August meet, the exhibit continues until the spring of 1999.

Billing the Molletiere Radio and Jukebox Auction in Souderton, Pennsylvania, as the "really big one" was no exaggeration. Ray Chase reports that the sale of close to 1,000 radios, from cathedrals, Catalins, consoles, and communications receivers to hi-fi equipment, totalled about \$60,000. As reported by Ludwell Sibley, jukebox sales were extraordinary — totalling \$285,000. Certainly, this auction has to be rated among the best in recent years.

Ray Chase also reports on the Robert J. Lee Auction in Mesquite, Texas — Ray is obviously a man with ever-ready travelling shoes. The over 500 lots sold included everything from a traditional Atwater Kent breadboard to over 100 novelty radios — Tropicana Orange Juice, Cabbage Patch, golf bag, windmill, you name it!

Of particular interest in *Photo Review* are an unusual Hallicrafters clock/radio and an Amplion horn speaker. In *Radio Miscellanea*, the pro and con internet debate continues, as does news about Nipper and the restoration of the RCA Building in Camden, N. J. John Grady also reminds us of a major safety issue while restoring an old radio.

A follow-up to letters in the January 1998 *Radio Miscellanea* is found on page 6 in Alan Douglas' short article on leaky capacitors. Rich Urmano also contributes a short article that encourages you to give homebrew construction a try. His tiny 2-tube regenerative set has given him a lot of pleasure and is inspiring him to consider more ambitious projects.

Coming Radio Events. Collectors have a choice of over three dozen events this month. They include the gigantic ARCI Radiofest in Elgin, Illinois, August 5-8, and the HVRA Mega Auction in Houston, Texas, August 21-22. Following almost on HVRA's heels is the annual "really big one" — the AWA Conference in Rochester, New York, September 2-5. As I've said many times before, if you can go to only one meet, make it to this one. A.R.C. hopes to see you there and at Elgin.

Happy Collecting

John V. Terrey, Editor

ON THE COVER

Once again, collector/artist Fred Geer adds his touch of whimsy to our cover. Many of you will remember his acrylic painting reproduced on our June 1994 10th anniversary cover. But, though retired, Fred is a man who moves with the times — his "Radio Dog" is a completely computer-generated drawing. No rejection of modern technology here! Fred would be the first to say that you can teach an old dog new tricks.

RESTORATION TOPICS

Radios That Are DOGS!

BY FRED GEER

Using an apt metaphor, Fred Geer tackles those "dogs" in everyone's collection, offering suggestions to counter subtle problems he has met along his 50-year journey in radio. If a radio still doesn't work after you've corrected the obvious problems, you have a "dog" on your hands and may want to try some of Fred's solutions. (Editor)

My friend George and I were talking about radios that refuse to work properly. George said, "I know that some radios that I have worked on were shipped from the factory in nonworking condition. Too many sets that I buy to work on have so many things wrong with them that they must have been non-working from the start."

After thinking over what George had said, I concluded it did have a basis in reality. A seller might just put such sets in a dark corner, take his loss, and forget them until a fellow collector discovers them years later.

Fifty years ago, I began tinkering with radios, adjusting those little screws that made them work better on certain stations. As I learned more about radio, it seemed clear that most nonplaying radios had only one bad part.

Now, 50 years later, that theory is no longer true. Heat, humidity and time have begun to have some strange effects on the radios that cross my workbench. The harsh climate here in Florida seems to be accelerating multiple radio problems making them all DOGS!

Over the years I have compiled a list of things that take the BARK out of those DOGS. Every radio is suspect now of having one or more defects beyond the obvious. Using a time proven technique, I find that 99 percent of the radios will work like new, cosmetics aside.

I use the following test instruments: an analog volt ohmmeter, a signal generator, a simple signal tracer, a signal injector pen, a resistor/capacitor substitution box, a good tube checker, contact cleaner, and plenty of alligator clip test

leads to substitute other parts. A must is service information from "Rider" or "Sams."

BEFORE YOU BUY

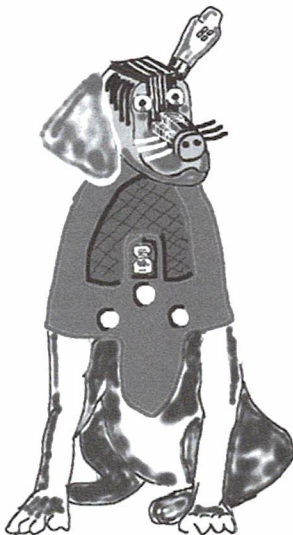
You can test that all important power transformer before buying a radio. Pull the rectifier tube. Power up the set, checking to see that the other tubes are glowing and that the power transformer is not making any strange sounds. Use a voltmeter to check AC voltages at the rectifier tube socket from the top of the chassis. If there is no voltage, run away before that DOG bites. If no AC power is available, use an ohmmeter to measure the resistance of the transformer windings. With all tubes and dial lamps removed, these measurements can be made at the tube sockets and the line cord's plug.

TAKING THE BARK OUT OF DOGS

If it is old enough to be an antique, I suggest replacing every paper and electrolytic capacitor with a new exact value component. On AC sets, I use 600 working volt papers and 450 VDC electrolytics. In the past, mica capacitors have seldom presented any problems, but a new mica or ceramic disk won't hurt. AC/DC sets get 600-volt papers and 160-volt electrolytics. An electrolytic used in the audio section should be replaced with exact value and voltage.

[Although blanket replacement of all capacitors may be the best approach, A.R.C. believes that it may be overkill in some cases. Instead, follow the guidance provided in items 1 and 4 below. Replacing only the critical capacitors will get the radio playing. Whether you decide to replace all capacitors as part of a complete restoration will depend upon your skill level. If you do replace all of the capacitors, it's a good idea to replace them one at a time and one lead at a time to prevent wiring mistakes. When in doubt, make a sketch of the capacitor's connections before proceeding.

A loud hum may indicate an immediate need



for replacement of the electrolytic capacitors. Shorted paper capacitors may cause resistors to overheat. Such obvious capacitor problems should be corrected before proceeding with the other troubleshooting techniques.]

SIMPLE TESTS FIRST

1. You are now ready to find out what else is wrong with the radio. In AC sets, pull the rectifier tube before powering up. Let the remaining tubes heat up and then insert the rectifier just long enough for it to become active. Watch the rectifier for evidence of excessive current. Symptoms of excessive current or a short circuit may be bright flashes, a purple glow, or overheated plates that glow red. If any of these symptoms appear, cut the power or pull the tube fast and check over the components in the power supply. Most of the time, if you have replaced all of the capacitors, the set will play like new; however, at this point, the DOGS begin to BARK.

2. The best test for tubes is direct substitution with a known good tube. Some tubes refuse to work in certain circuits, so try several. The tube pins, as well as the tube socket, may have corrosion or rust on them. Clean them with contact cleaner and fine sand paper. The wires inside the tube's base may have a poor solder connection that keeps the tube from working. Remelting the solder in the tube pins can make a bad tube good. Poorly made sockets may have a break between the tube pin connection and the solder lug. Rock the tube around in its socket or jump with test lead from the lug to the tube pin.

3. Missing tube shields can be replaced with aluminum foil wrapped around the tube and grounded to the chassis. A shield is used to stop hum and undesirable interstage coupling. Example: An Emerson U5A would not play anything but squeals when on a station. I found that the original shield was missing, and that a foil cover made the radio play as it should.

4. You must use all of your senses. Look for a wisp of smoke, and smell for overheated parts. Listen for strange sounds. Hopefully, none of those symptoms show up. If they do, cut the power and do some detective work with the ohmmeter looking for shorts in wiring, coils and resistors. Look especially for parts that connect from B+ to ground. It is OK to power up from time to time to help isolate the offending part.

5. Once everything seems to be working, put your finger [via a metal probe] on the center volume control lug. Does it give a robust hum? If it does, the audio section is working. This test will give you an idea what next to consider.

6. Does the oscillator work? Get another radio and set it to a clear spot on the dial around 1200 kHz. I use a transistor radio and hold it close to the offending radio. Tune the suspect radio, listening for its local oscillator on the transistor set as you tune up and down the dial. A faint whistle indicates that the radio's oscillator is working.

7. Offending resistors may check good but may change values under load. Resistors made

from 1942 to about 1950 are the worst for value change. Those from 100,000 ohms up love to go up in value. I suspect internal heat does this. Find the bad ones with an ohmmeter or with a resistor substitution box.

Be very careful selecting replacement resistors. Use the same value and wattage rating. Sometimes the working temperature is very important. Example: a 1948 Philco FM/AM/SW oscillator section had 1/4-watt 1-meg ohm resistors that ran very hot. They were replaced with 1/2-watt resistors. However, I now had a DOG with frequency drift. The 1/4-watt resistors' heat stabilized the circuit by preventing drift.

Resistors that go down in value are harder to find. Take voltage readings at the tube socket. When improper voltage is detected trace back to the voltage source. All resistors in that line become suspect. Replace them one at a time with a known good resistor.

Check any wire replacements with an ohmmeter to be sure it is just wire and not a resistor that looks like a wire.

When resistors make noise (crackling, popping and static), wiggle every resistor to see if the noise can be produced at will. My signal tracer has a noise-generating voltage. With the set powered down, hooking the probe and ground connection to each part sometimes causes the part to act up, be it resistor, transformer or any part.

8. Wires and solder joints can help a DOG BARK. Some strange sounds can be generated by a wire that is incorrectly located in the chassis. Just a slight wire movement during the work process might cause hum, motorboating and squeals to appear or disappear. That goes for parts location too!

Over time, rubber insulation develops cracks and crumbles, exposing the wire to hidden shorts. A worse offender is wire shielded with a braid or spring. The internal conductor may touch the shield causing a short. Also heat can melt the insulation.

9. Fine wire and old solder in the presence of humidity can sometimes cause an acid that eats fine wire. Reheating the joint cures it most of the time. Otherwise the wire must be cleaned, tinned, and resoldered. This happens in audio transformers, IFs and RF coils.

Here's an example of a new problem with audio transformers: The radio played fine at very low volume but became very annoying at room-filling volume with static, crackling, and a raspy sound on high notes. It checked perfectly, but the noise tester indicated that the static sound was coming from an interstage transformer. Unwinding the transformer revealed that several turns had insulation breakdown, but perfectly good wire [no copper oxide].

10. Moving parts, including switches, variable condensers, volume and tone controls, and trimmer condensers, have hidden defects that will drive you crazy. I hate rotary switches the most. Some have silver contact points that turn black with silver oxide and other corrosion effectively

(Continued on following page)

(*Radios That Are Dogs, continued*)

stopping the radio from working. Ideally taking the switch apart and polishing cures the problem. I leave that job to the truly dedicated. Tuner cleaner spray works for a time, and working the switch will keep it clean. Switches are designed to be self-cleaning through use.

Variable condensers may corrode (a la Philco), develop aluminum oxide (the white bumps and powder), and have bent plates. Those with very close spacing may have metallic dust from the atmosphere trapped between the plates. Disconnect the wires going to the variable condenser. Hook an ohmmeter between the stator and rotor plates. Moving the condenser through its range will give an indication if and where a short exists.

For example, an RCA Model K-80 uses a very large condenser frame with a tiny, closely spaced variable condenser and mechanical push buttons. Repeated hard use of the push buttons causes the frame to warp throwing off the plate alignment. The cure is to cover both sides of each plate with scotch tape — a really trying job.

Taking the condenser off the chassis and soaking it in *Fantastic* overnight will loosen all the trash. Scrubbing with a stiff artist's brush will remove the difficult dirt. Rinse and let dry.

Volume and tone controls make a scratching sound. Replacing with new ones would be great but is usually out of the question. Take them from the chassis and remove the back cover. Dust the resistive element with a soft brush, and with a 6B lead pencil, coat the resistive surface. (A 6B pencil is a form of conductive graphite that lubricates the surface and stops the noise.) Check with an ohmmeter to see if the wiper arm is insulated from the case. Should a short exist, the control must be insulated from the chassis.

A wire-wound volume control is hardest to fix because the wire can't be soldered. Make two "U"-shaped metal clamps to hold the broken ends of the resistive element in place. Then

solder a wire between the two clamps. When it is more than a break and some of the wire is missing, use the clamp to make a solder joint. Measure the total resistance, and then use a fixed resistor to make up the difference.

11. Speakers with broken cones just need a little help to sound good once more. *Kleenex* and *Liquitex Acrylic Gloss Varnish*, medium, (buy it at an art supply store), and a white milky glue — something like *Elmer's Glue* — can bond thin *Kleenex* to cover holes and tears in the cone. Painting the whole cone with this varnish will help preserve the paper.

If a voice coil (VC), whose spider is held in place by a screw, is rubbing the pole piece and needs to be centered, it can be recentered using three shims made from thin metal. After loosening the screw, push the shim between the voice coil and the pole piece, centering the cone. Once the cone is centered, retighten the screw, and then remove the shims. The cone should work smoothly. Trash lodged in the VC post gap on an electromagnet speaker can be dislodged with the shim. On a permanent magnet type — good luck!

WHAT IS A TRUE DOG?

A chassis with all its parts removed and without a speaker is a true DOG. The only cure is to replace it with a new transistor radio cleverly hidden under the nonworking chassis.

I hope that these "BARK Suppressors" help tame all your DOGS!

(Fred Geer, 6042 Brookridge Rd., Jacksonville, FL 32210)

Fred Geer's radio collecting began in 1953 with a Shure microphone and an RCA R-32. In addition to his 300-plus collection, he owns around 2,000 old-time radio shows, which he can broadcast to any radio in his house. Through his articles, he enjoys sharing various aspects of radio collecting and history.

More on Leaky Capacitors

BY ALAN DOUGLAS

Here is a follow-up to the follow-up in the January 1998 *Radio Miscellanea*:

A mica capacitor is a poor choice for plate bypass or interstage coupling where there is applied DC. Any leakage current will cause microscopic silver dendrites to form in the mica, eventually shorting the capacitor; essentially, it becomes an electroplating cell. There is always some leakage because moisture always gets in through the Bakelite case and wax dip. Modern silver micas with alternate dips of phenolic and epoxy resins have good resistance to moisture, but nothing short of a glass-to-metal seal will keep it out permanently.

Paper capacitors always leak to some degree, also because of moisture in the dielectric. Any leakage current means that metallic ions are being transferred through the paper, and failure is only a matter of time. Sprague Black Beauties

have the worst reputation: perhaps the heat of Bakelite molding degraded the paper, and then it was just a matter of moisture re-entry over 20 or 30 years. But, all old paper capacitors are suspect, and any that pass more than a few microamps at working voltage might well be replaced.

Some of the older capacitor checkers apply a substantial DC voltage during the leakage test and read out directly in megohms, though I find it less confusing to measure the leakage current rather than resistance. Modern ohmmeters which run at low voltage can give misleading results: try reversing the polarity and see if the reading changes. Old capacitors are capable of generating a small voltage by electrolysis. When my Fluke 79 DVM reads negative ohms, I know there's something fishy.

(Alan Douglas, Box 225, Pocasset, MA 02559)

A.R.C. STAFF PROFILE

Bobby Lyman — “Wonder Woman Works Here”

BY DOROTHY SCHECTER

Writing a profile of Bobby Lyman inspires a typical A.R.C. scenario. The script might read like this:

“Was that Mrs. Terrey tending the A.R.C. outside booth at AWA in Rochester?”

“No, that was Bobby Lyman.”

“Not the Bobby who handles subscriber problems, I hope. I always start my letters out with ‘Dear Sir.’”

“Bet she’s used to that. But, believe it — Bobby is definitely a lady.”

Just who and what Bobby (née Roberta, of course) is sometimes raises questions from those of you who haven’t met her. However, we at A.R.C. have no doubts about her identity. Bobby is her own person — a woman of firm convictions and our resident “troubleshooter” for subscriber complaints. Her direct, open style led one fellow worker to say, “Bobby’s word is gold. If she says she’ll do something, you know it will be done.”

Why is Bobby a regular at the AWA Conference every year? Because Rochester is part of her personal history. Although she grew up in Maryland, she graduated with a degree in biology from the University of Rochester where she met her husband Warren. While he finished his Ph.D. in nuclear chemistry, she worked for Kodak.

And so, every fall, Bobby returns to her old college town and a reunion with her roommate, who becomes the other “Mrs. Terrey” at A.R.C.’s inside booth. (Obviously, A.R.C. never runs out of “Mrs. Terreys”!)

The Beginning. As you all know, A.R.C.’s home base is in Carlisle, Massachusetts. The Lymans moved to Carlisle in 1973 — right next to John Terrey’s long driveway leading to the house in the woods where he has lived since 1971. Little did the Lymans know the consequences of that geographic choice, as Bobby set about generally living up to the sign that eventually appeared over her A.R.C. desk — “Wonder Woman Works Here.” She has raised three children, coached kids’ soccer for fifteen years, served on the town Board of Health, tended her large garden, etc., etc.

But, one day in 1987, there came a knock on her door. It was John Terrey — and wouldn’t she like to help out with his quite new publishing venture? It would be easy. After all, she could just run down the driveway and work part time around the children’s schedules. All very flexible. No problem.

Well, those were A.R.C.’s “primitive days” when we worked out of the Terrey kitchen, family room, basement — almost the whole house! And the Lyman house proximity proved more than once to be a handy annex.

A vivid memory is that of Hurricane Bob in August 1991, leaving the Terrey house without power just when the labels for the September issue had to be printed. Power was restored to the Lyman house soon-

er, so the entire A.R.C. operation moved down that long, long driveway. No problem, right Bobby?

Although our ambience has not gained in elegance, we now do occupy the one so-called industrial building in Carlisle, once a molasses factory. Bobby can no longer just run down the driveway nor can we just pop into her emergency annex, but she is still on her flexible schedule. Despite all efforts to talk her into more hours, Bobby is firm about time for other interests.

Beyond A.R.C. An avid gardner (there’s that biology degree), Bobby shares her produce with us every summer. Tennis and bridge are other pursuits. And family vacations too are important — a summer stay in Nantucket, a skiing trip to New Hampshire, time-shares anywhere warm, and trips to see her older daughter Carrie in Arizona.

One of Bobby’s links to radio collectors is her longtime hobby of stamp collecting. Since she handles a great deal of the incoming mail, a “fringe benefit” of the job is the stamps on the envelopes.

No, she doesn’t buy stamps for her collection. If we were to give Bobby a middle name, it would be “Frugality.” But, her collection fills many a box in the attic, and organizing it will be her “retirement job.” We can’t imagine that day, and besides, Bobby’s brand of retirement would not be anyone else’s.

Now that Carrie and son Peter are on their own and Sarah will be a freshman at Tufts University in the fall, Bobby is not the type to suffer from the “empty nest syndrome.” She and Warren will program themselves into untold activities and have a great time doing it.

The Job. Speaking of programming, Bobby always says that she took this job in order to learn more computer skills. As it has turned out, she hasn’t had time for much of that, for her main job here has been processing mail in any form — fax, e-mail, and post office — dealing with the many books we sell, and handling complaints in writing (not by phone, please!).

In addition to the flexibility of her job, she also likes working with a multiage group. At A.R.C., she hears everything from first-home buying to nursing home searches. We are a motley crew, to say the least!

But, if she enjoys hobnobbing with us, we, in turn, are always glad to see her come through the door. Make no mistake about it — when we are desperate for help, Bobby can be counted on to answer the call.

And as for her retirement, we refuse to contemplate that possibility. We hope you will be stopping by to say “hi” to Bobby at the AWA Conference in September this year — and for many more years to come.

(Dorothy Schecter, c/o A.R.C., PO Box 2, Carlisle, MA 01741)



WITH THE COLLECTORS

Browning-Drake Radios

BY WALLY WORTH

In this article, Wally Worth shares his knowledge about the variations in Browning-Drake receivers made in the 1920s. Of particular interest is the affiliation of Glenn Browning and Frederick Drake with the National Company for the manufacture of the Regenaformer and coils. (Editor)

The founders of Browning-Drake Corporation, Glenn Browning and Frederick Drake, were at Harvard University in 1923 and engaged in research to increase the efficiency of radio frequency transformers. At the time, RF transformers were only 20 to 30 percent efficient, and thus were losing a lot of the energy normally passed on to the detector tube.

These two men, after much experimentation, found that the losses were caused by too much capacity between the primary and secondary coils of the radio frequency transformers. They had formulated an idea to manufacture these transformers with much lower capacity by making the primary winding very narrow, and placing it in a slot at one end of the coil, instead of along the surface of the secondary winding.

THE NATIONAL COMPANY

Browning-Drake approached the National Company, then on Brookline St. in Boston, with the proposal of manufacturing this new type of transformer, and mounting it on the rear of National's variable condenser to form the "Regenaformer." The Regenaformer included an adjustable tickler coil to control regeneration. National also manufactured the antenna coil and mounted that on another National variable condenser. With this arrangement, the National tuners were born.

These tuners were sold as part of a kit, along with other components, to be mounted on a breadboard to form the Browning-Drake receiver that included two tubes. These kits sold so well that



Figure 1. The Browning-Drake Model 5R with variable ratio vernier dials at either end of the cabinet.



Figure 2. A Browning-Drake 4-tube set with both dials at the left-hand side of the panel. Note the Browning-Drake engraving with the "Baird Built" logo just above.

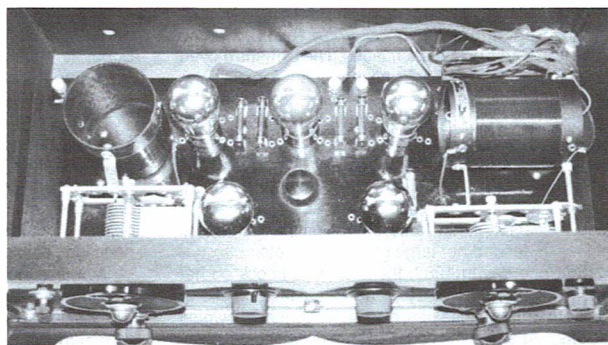


Figure 3. An interior view of the Model 5R showing the 5 tubes located between the National tuners.

other kits with 2- or 3-tube audio amplifiers were placed on sale.

There were many adaptations of chassis layouts and tube styles pictured in the various magazines of the day, and they enjoyed a brisk sale

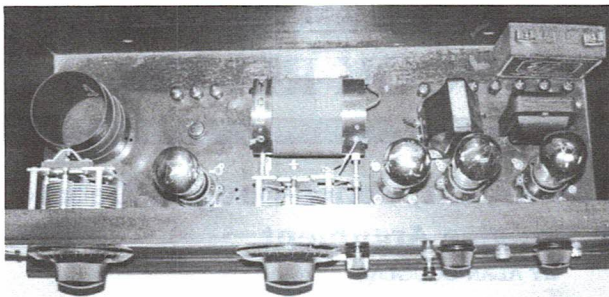


Figure 4. An interior view of the 4-tube Browning-Drake set with the transformer coupled audio circuit.



Figure 5. A front view of a 1924 Browning-Drake model with a panel meter.

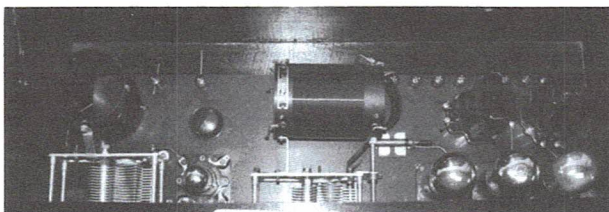


Figure 6. An interior view of the set in Figure 5, showing the lone Type 199 tube between the two variable condensers and the three Type 01-As at the right.

because of the sensitivity of the Regenaformer. These kits, and later complete radios, gave the Neutrodynes of that era a good run for the money, since they were much easier to operate, and more sensitive.

As an aside, I remember working for Boston Gear Works as a sales engineer and calling on the National Company plant, then on Jackson St. in Malden, Massachusetts, and talking with their engineers and draftsmen. Several old timers there remembered Glenn Browning coming into the plant and discussing the manufacturing processes of their coils and Regenaformers. Browning even had a small office there where he oversaw the making of parts.

THE BROWNING-DRAKE CORPORATION

Both Browning and Drake were closely involved with the National Company for many years, but Glenn Browning terminated his relationship with

National in July 1927 to devote his energies to the newly formed Browning-Drake Corporation, which had moved across the river to Cambridge to a larger plant.

Later the various models put out by the Browning-Drake Corporation were sold using a 4- or 5-tube circuit with two tuning dials at each end of the front panel, as shown in Figure 1, or with both dials at the left hand of the panel, as shown in Figure 2. These tuning dials were mostly the National Company's "Velvet Vernier" dial with variable-ratio tuning used in the radio shown in Figure 1.

Figures 3 and 4 provide internal views of the radios shown in Figures 1 and 2. Another version of the Browning-Drake radios is shown in Figures 5 and 6. This 4-tube radio uses one Type 199 and three Type 01-As. Also note the use of a panel meter.

Later, 6-, 7-, and even 8-tube models were produced, but these had single-control tuning in the center.

Of the many kits and finished radios that were put on the market, only the panels of the finished receivers were engraved with the Browning-Drake name. The kit sets were engraved only with the control function. Thus, it is easy to distinguish between kit sets, of which there were many, and the complete radios built by the Browning-Drake Corporation.

Most of the complete models were housed in fancy 2-tone cabinets and finished in mahogany or walnut. Cabinets used were made by the Fritts, Signal and Corbett companies. The panels almost always were mahogany-colored Bakelite with a high-gloss finish to make a very pretty set.

When looking at these sets and trying to resurrect the model number, remember that the "R" in the model number means that the audio amplifier tubes are resistance-coupled. The model numbers without the "R" are transformer-coupled.

Reference:

Radio World, July 23, 1927.

(Wally Worth, 2 W. Elm Ave., Wollaston, MA 02170)

At age fifteen, Wally Worth began saving his paper route money to buy parts for 1-tube sets. Fifty years later, in 1986, he started to collect anything that needed cabinet work. His diverse collecting tastes include crystal sets, 1920s battery AC sets, transistor and multiband sets, novelty radios, tubes, and both horn and cone speakers.



Zenith Radio — The Bryant/Cones-Douglas Debate The Douglas Argument

BY ALAN DOUGLAS

The first Bryant and Cones book — “The Zenith Trans-Oceanic: The Royalty of Radios” — was previewed in the January 1995 issue of A.R.C. When the book was published, the authors invited readers to “judge for themselves the validity of our conclusions.” Alan Douglas, author of the 3-volume “Radio Manufacturers of the 1920’s,” a pioneering work, was in the forefront of those who responded. Although our files were thick with the controversy that arose, we did not publish the details, hoping a resolution would come about in the natural course of events.

When the second Cones and Bryant book on Zenith was published — “Zenith Radio, the Early Years: 1919-1935” — they previewed it, and Bill Harris reviewed it in the December 1997 A.R.C. However, the book itself contains attacks on the credibility of Alan Douglas’ books, which have long been reputable references for collectors. This time we felt that it was appropriate to publish Alan Douglas’ response. Although lengthy, it contains many insightful points. We’re sure readers look forward to further debate on the subject of Zenith by the “Radio Professors,” Alan Douglas, and any others who may wish to join in via A.R.C. (Editor)

When I wrote *Radio Manufacturers of the 1920’s*, I tried to give a balanced view of the whole industry. Every radio company has its strengths and its own appeal, and each has its partisans; for example, I have a good friend who likes Federal Orthosonics, and someone else may even collect Kolsters, for all I know.

It was obviously impossible for me to do complete research on every radio company, and if a person chose one name and began digging, he could uncover more than I did, enough to warrant writing at least a supplementary magazine article and possibly a book. Such publications have appeared on Atwater Kent, Federal, Philco, Scott, and maybe others, and now we have one on Zenith. Zenith has a lot going for it: quality products, appealing style, availability, a flamboyant president, and a name that lasted longer in the radio/TV industry than any other (under its original ownership).

The danger is loss of perspective — boosterism run rampant. Zenith did not do everything first or best, and whatever it became in the mid-1930s and afterward, it was a nobody in the 1920s. Zenith might have ranked as high as tenth in the industry — the figures vary wildly from year to year — but it was dwarfed by RCA and Atwater Kent up to mid-decade, and by Majestic and Philco later.

All but two of Zenith’s “firsts” turn out to have been fabricated from whole cloth by its advertising

department, and the exceptions — arctic exploration and automatic tuning — have rather little to do with the development of the radio industry or broadcasting.

With all this in mind, here is my review of the new Zenith book. Should you buy it? Absolutely. Does it have problems? In spades.

The first book by Harold Cones and John Bryant — *The Zenith Trans-Oceanic: The Royalty of Radios* — used no contemporary references before 1938. This new book is much better, but still relies too heavily on unverified recollections and Zenith promotional material.

The cover legend sums it up well: “A Schiffer book for collectors.” [Ironically, Cones and Bryant call Douglas a “hobby writer.” Is there a difference between a writer “for hobbyists” and a writer “for collectors?”] It is a fine book for collectors: a sewn binding, well printed, lots of color photos, and as complete a rundown on the various models as you will ever find. My books, of course, stop at 1930.

As a quick collector’s reference, *Zenith Radio, the Early Years: 1919-1935* has one failing — the sections duplicate each other somewhat and locating all the information on a particular model takes considerable digging (there is no index) through scattered lists, photo sections, reproduced ads, notes and text. If you take this book to a flea market for identification purposes, someone else will have bought the radio by the time you find it in the book.

As a more detailed collector’s or historian’s reference, it has other failings. Radios are identified only by model year, not by introductory month, and the otherwise fine ads are not dated at all. One would expect a book-length “definitive” account of Zenith’s early history to be at least as detailed as previously available references. But a model listing such as “1922-3” for the 1R is too vague to be useful (and one of the tables gives it as “1922-2”).

Zenith models did not necessarily follow the automobile industry’s model-year ideal, so a month and year of first advertising would better accommodate the many models that appeared during a year in which strikes, new tubes and circuits, licensing changes, competition, and whatever forced Zenith’s hand.

The best chapters cover radio-related topics in which McDonald or Zenith played an integral part: the history of WJAZ, Chicago trade shows, broadcasting chaos in 1926-28 and of course Arctic explorations. The contemporary material recently uncovered (literally) in McDonald’s personal files is invaluable in illuminating these areas, and we are

promised another book on Arctic expeditions, using much additional non-Zenith source material.

THE HOWE AND ARTHUR 1922 PHOTOS

The authors' interpretations of industry conditions are not always fully informed. For instance, in the introduction to the Howe and Arthur photos (much sharper than the ones in my books, which came from poor halftones in a magazine), we read, "Since radio sales and manufacturing were cyclic, with the peak period being September to January, a manufacturing output of 50 radios in June would indicate phenomenal growth for the small company."

Actually, a weekly output of 50 would indicate phenomenally bad timing, since by June 1922 the radio industry was dead. If Zenith really made 50 per week—a later page states 15 per day in July, but no source is cited for either figure—they were probably for dealer samples.

A Zenith sales department letter quoted in *Radio World*, July 8, 1922, p. 22, claims 300 per day, and I don't believe that either. I would guess the photos were taken in September (open windows, no heavy coats on the hooks) when they had accumulated enough of a stockpile to stage some impressive publicity shots.

This introduction also postulates that, "The large work force in this series of photographs indicates they were taken during the peak radio manufacturing period; most of these employees were probably laid off in January, and the work force was not again enlarged until next August." What the photographs tell me is that most of them were QRS employees. You may lay off production workers, but you do not lay off machinists or cabinet makers in a model shop.

We know that some of these people were Zenith employees. That is Rudy Grey standing behind the revolving chassis jig, and I would bet that the person working on variable condensers is Joe Wahlgren since he devised the pulley-and-string drive to replace failing pot-metal gears on the 1R. This information is from Fred Cassens, who incidentally stated unequivocally that no women were employed by Zenith at the QRS plant. He was there in 1923, not I, and not the authors, and not anyone at Zenith now.

The authors prefer "posed" to my "faked"; of course, they were posed, as the exposures took about two minutes. But, if they show another company's building, fixtures and (some) employees, then if it quacks like a fake, it's a fake.

Now, in all probability, Zenith was using that space at the time—most of the photos were taken in the same room—but it had to be the QRS shop. One of those punch presses could have produced more stampings in a day than Zenith used all season. It doesn't make sense to buy and install such a machine only to use it for a few days. More likely, these presses were originally used to stamp out piano-roll spool ends (I have some dated 1922) and were idle after QRS switched to mold-composition spoons.

And where are these "employment/personnel records" referred to by the authors? There is plenty of space in the endnotes for such trifles as the cost of instruction books for various electric models (endnote 85, p. 211) but none for personnel

records? Now I could be wrong, but do we know the exact employment dates for four workers (endnotes 51 and 58, p. 209) only because they had 25th anniversaries in 1947? In other words, there are no employment/personnel records from 1922.

QRS

I wish a little more credit were given to Tom Pletcher and the QRS Music Roll Company for their pivotal role in Zenith's survival in 1922-23. In the 1920s, when no home was complete without an expensive piano, music dealers were the most prestigious outlets in each city and town. Zenith had essentially no product, no factory, no employees, little more than an Armstrong license. But by nestling under the QRS wing, Zenith obtained instant entree to the best showrooms across the country, and not so incidentally, kept other manufacturers out.

Other than displaying pretty ads on the wall, radio collectors generally ignore marketing. But it was no accident that the manufacturing companies who seemed to grow into giants overnight, like Atwater Kent and Philco, had elaborate dealer organizations in place long before their entry into radio.

By the way, QRS sold rectifier tubes to Zenith (and Majestic) in 1927 and would have become a major tube maker had it not lost a patent suit to Raytheon in mid-1928. (See Douglas, "The Rise and Fall of QRS Radio," *ARCA Gazette*, Vol. 8, No. 2, Spring 1980.)

The authors in the "Afterword" state, "We believe that the Commander would point to Pletcher's wisdom, advice, and understanding of the music industry..." No speculation is needed: the official 1955 Zenith history, which McDonald commissioned, has not a single mention of Tom Pletcher or QRS. Is this generosity of character?

Writing an unbiased account of Zenith, while simultaneously obtaining most of one's source material from the company and interviewing only those who chose to remain there, is patently impossible.

RCA LICENSING

I have stated that RCA licensing in 1927 was no big deal, while the authors attach special importance to Zenith's being number one (endnote 88, p. 212). RCA licensing in 1927 was far more important to RCA than Sarnoff would ever admit. RCA had been formed as a communications monopoly, but there was absolutely no excuse for using this position to control radio manufacturing or broadcasting. RCA simply happened to be in the right place at the right time, and Sarnoff's hope was to cement this position before too many people noticed.

He did pretty well. He made it seem almost natural that RCA would own all radio patents and impose stability on a chaotic industry, and that 7½ percent was a fair royalty to RCA for the service. He got his way in the vacuum-tube industry where a few patents were fundamental, but finding a basic radio-circuitry patent was not so easy.

By good fortune, Alexanderson of GE had such a patent on cascaded tuned-RF circuits, and by equally good fortune, one federal judge in one test case had interpreted this patent far more broadly

(Continued on following page)

(Bryant/Cones-Douglas Debate, continued)

than it deserved to be. RCA's ploy was to publicize this decision as much as possible, to avoid appealing it at all costs, and to stampede the industry into signing up, before it realized how weak RCA's position actually was.

The few that did know, like Splitdorf and Atwater Kent, extorted very favorable terms from RCA, which collected less than half the total royalties from the industry that the 7½ percent arithmetic would indicate. Even many ordinary companies got forgiveness of past royalties. (See Floyd Paul's story on Gilfillan in the August 1994 SCARS Gazette and reprinted in *AWA Review*, Vol. 10, based on documents recently seen in ITT Gilfillan files.)

So what did McDonald get by being first on RCA's doorstep, hat in hand? Probably — since Zenith had no money to pay — forgiveness of all past royalties, in return for hewing to the RCA party line. Could he have carried on business without the license? Certainly for a year, probably more — no one likes to be first in line for a shearing, and in Zenith's absence, who knows if anyone else would have come forward. Sparton did very well without a license, but was more self-sufficient, with a tube-making subsidiary.

I don't know. But Zenith was in poor financial shape at that moment in early 1927, so Sarnoff and McDonald each held a much weaker hand than each thought the other had, and each was most anxious to make a deal.

“FIRSTS”

A company's history is of little use except to generate confidence in the future and to promote sales. Zenith's advertising department has always found it expedient to glorify the past, and in particular to treat it as a succession of “firsts.” This dates all the way back to a 1927 newspaper campaign touting Zenith as holder of some unnamed long-distance record, as well as first in the Arctic, first to build DeLuxe radio, and first to make batteryless receivers (*Radio Manufacturers of the 1920s*, Vol. 3, p. 264; compare *Zenith Radio*, p. 38)

Endnote 84 (p. 211) quotes an engineering report from 1929 (this must be an error: it would have been June 1927, judging from the content) giving Zenith's “irrationality” for this AC-set claim. After describing essentially a Garod Model EA and saying he had never heard of a commercial set like that (Garod sold more EAs than Zenith sold 17s), this Zenith engineer then defines the practical AC set as not using liquids or chemicals and somehow places the Model 27 first.

What does that make the Radiola 30 — chopped liver? It used the same series-string Type 99s more than a year earlier, and it worked better too. And how about the many sets using non-RCA AC tubes? Those left “a certain doubt in our minds as to whether a receiver using these tubes will measure up to our established standard of performance.”

Apparently the “doubt” evaporated in three months when Zenith began using directly heated tubes too, just like RCA. In fact the new 11E had the same tube lineup as the RCA Radiola 17, which pretty much disposes of the authors' efforts to make the 11E the first AC set.

As for the DeLuxe radio, every radio maker would build something fancy if paid to, so this is

hardly a first. The fact that Zenith's would work with a short indoor antenna is nothing — the Grebe CR12 came with 20 feet of wire to hide behind a picture molding two years earlier. Dual horns, high and low? The Grebe Synchrophase console had those too, at exactly the same time as the DeLuxe.

Note that Zenith was not claiming the first portable set as of 1927, even by its convoluted logic. The never-produced 1920 PR-1 could hardly claim portability if it needed a 100-foot antenna and ground, and if these are allowed, any number of models back to 1910 would qualify. But Zenith's claim was there in 1955 for the Companion (though the illustration was of something else).

Somewhere along the line the “first all-band portable radio” claim appeared. It is not in the 1955 Zenith history, but the original 1942 advertising comes close. In any event, the Hallicrafters S-29 from August 1940 predated the Zenith Clipper by more than a year.

The advertising department did not confine its creativity to hardware. As of 1955 the WJAZ truck station was “probably the first mobile radio broadcasting station.” Too bad for them that 3OI scooped Zenith by more than two years (Oct. 1921). 3OI was an amateur station in a cabin on a truck chassis, with radiophone transmitter and receiver, on-board gas-powered generator, mobile antenna attached to the body, and even a phonograph for playing records. Owned by Horace Beale of Parkesburg, Pennsylvania, it operated in the days when amateur stations could still transmit music and other programs, and was well documented both then and in modern times.” (Ludwell Sibley, *DVHRC Oscillator*, Nov. 1997.)

We are now left with two — count 'em, two — Zenith firsts. Arctic radio is fair enough, though there is yet one more bit of mythology to debunk there. As to automatic tuning, fair enough also, for what it's worth — Zenith did have the first production radio with push-button tuning. By the way, there was a competitive system that was never built — one J.E. Gardner applied for a radiophonograph patent in 1926 that was eventually assigned to Majestic (1,897,252). This described local and remote control, signal-seeking (!) and automatic shutoff when a station left the air or when the record stopped playing.

HANDS-ON REPORT — A FEW ZENITH PRODUCTS

Sometimes it is well to forget what the ads claimed, and simply hook up the radios and run them.

The 1R. The 1R operates as well as any of the better Armstrong regenerative sets, which is to say, very well. It is particularly insensitive to hand capacitance, despite being completely unshielded. I have never run a 3R, but I presume it handles the same.

The Super-VII. The Super-VII, like all attempts to get around the Armstrong patent, was a step backward. The only really good unshielded TRF was the Grebe Synchrophase, with its self-shielded (binocular) coils, physically-small tuning capacitors, and careful layout. The Super-VII works well, but only because it is regenerative after all — the rheostat in the first RF amplifier plate circuit allows setting the gain right on the hairy edge.

The Reinartz Transceiver. Cones and Bryant ant show this set on page 69. I have Serial No. 1 here, bought from the Zenith employee who was given it in 1925. (See Douglas, "Ham Radio in the Arctic — 1925," *73 Magazine*, July 1975, pp. 103-105.) I have never run the transmitter, a self-excited 01-A Heising-modulated by another 01-A for phone. The receiver, using three Type 99 tubes as regenerative detector and 2-step audio, works amazingly well on 40 meters, though it is fussy about needing a really hot Type 99 (I settled on a W.E. 239A in a Type 99 base). Connected to an AC power line in any way (B eliminator), it is swamped with a tunable hum, but naturally, that was not a problem in the Arctic.

The Model 27. This model is a joke, a leftover-stock VII chassis with Type 99 tubes installed in adapters. It pulled Zenith out of a financial hole in 1926, but as an engineering advance, it would make a good birdhouse.

The Model 39A. This model, with its 50 output stage has impressive bass power without much treble. RF performance is adequate, and the cash register tuner is fun to demonstrate. It has an internal rotating loop also. Much of the purchase price, as with all these big Zeniths, went into the cabinetry.

PERSONAL RECOLLECTIONS VS. CONTEMPORARY DOCUMENTS

PART 1 — WHEN PARAGON BECAME ZENITH

"There is nothing so unreliable as eyewitness testimony." Whoever phrased that thought so well knew what every good historian knows — personal recollections are fine, but one takes them at face value at his peril. The fables surrounding Zenith's first use of the trade names "Paragon" and "Z-Nith" are no exception.

When I first wrote and asked R.H.G. Mathews, through mutual friend Leo Gibbs, for any details of the Chicago Radio Labs operation, Matty was reluctant to commit himself. That was a long time ago, he didn't recall much about those days, and he considered that part of his life much less important than his subsequent career. Nonetheless, he did make some guesses about the number of sets produced and their scheduling — information which I used in my books, and which I am glad to share with other writers.

Unfortunately, though not surprisingly (recall the opening quote) Mathews was quite wrong about several things: it is human nature to rearrange events to suit our own views. Hassel's memory was little better. They were, of course, not going to admit to pirating the Paragon name, and if I had interviewed Paul Godley or Al Morgan, I would have heard very different stories. Both, unhappily, were gone by the time I started my collecting hobby.

I do however have a letter from Wardell Smith, with Adams-Morgan since before the war, who knew the participants well. The amusing thing about this letter is that he has it wrong too!

[In Wardell Smith's 1980 letter, he states that he recently read that, "Mathews in Chicago was using the name 'Paragon' and Al Morgan had to stop him after considerable trouble. As I remember it, it was the other way around." Smith makes clear that all this was a long time ago.]

The historian's job then is to sift through this

chaff and search out the bits of truth, or at least to make a try at it. Contemporary records, not later recollections, are the place to begin, and if one reads through the issues of *QST*, *Wireless Age*, and *Electrical Experimenter*, one can get a fair feel for what actually happened.

The nutshell is an ad for the Adams Morgan "PARAGON R.A. TEN" in the February 1921 *QST*. [Excerpts from the ad include the following: "Of course, we have known all along that imitators were using the PARAGON name, but only recently did we realize how radio men were being deceived. Letters have come in, however, from a number of amateurs who bought these fake PARAGONS and were tremendously disappointed... The use of the PARAGON name on other instruments is therefore not only unfair and deceptive, but also illegal... Be sure to get a PARAGON — a real PARAGON."]

It is very difficult to read this ad and believe that Adams-Morgan willingly let anyone else use the Paragon name. And, just by coincidence, this very same issue of *QST* carries a CRL ad announcing its new trade name — Z-Nith.

PART 2 — MCDONALD'S SINGING ESKIMOS

[Cones and Bryant refute Alan Douglas' account of the singing Eskimo story in endnote 66, p. 220.]

This one needs some background. The story of McDonald broadcasting Eskimo songs to Admiral Coontz halfway around the world has been unchallenged for more than 50 years. It originated with McDonald, appeared in a Zenith house organ in 1944, and even found its way into MacMillan's biography before being repeated by the present authors in the Trans-Oceanic volume (photo, p. 16).

Briefly, McDonald and MacMillan were heading a 1925 National Geographic expedition to Greenland, while Admiral Coontz commanded a US Navy cruise to Australia to test shortwave communications. Fred Schnell, ARRL traffic manager, was in charge of the radio gear on the *USS Seattle*. Zenith lore has it that McDonald was responsible for placing Schnell there and played a large part in the Navy's subsequent adoption of shortwave technology. Contemporary records show otherwise.

A story in *Radio Digest* for August 29, 1925 covers this Eskimo broadcast in some detail. It occurred on August 12, 1925, and was received at 9XN, Zenith's experimental shortwave station at Arlington Heights, on 40 meters, with the intention of rebroadcasting it on 322 meters. Unfortunately, the broadcast happened without prior warning, starting at 10 P.M. Chicago time. While it was received quite well, by the time all the engineers were found and the necessary equipment hooked up, it was 1 A.M. Little more than one Eskimo song was rebroadcast, and that was drowned out by a local thunderstorm.

On August 12, the *USS Seattle* was anchored at Wellington, New Zealand, 1,300 miles away, having left Melbourne on August 6. The only time the *Seattle* was "off Tasmania" was during her arrival on July 20 or at departure; otherwise, radio operator Schnell was ashore. While MacMillan was said to have broadcast McDonald's voice and songs by expedition members to "all parts of the

(Continued on following page)

(Bryant/Cones-Douglas Debate, continued)

American continent" before the August 12 broadcast, it is quite unlikely that Schnell heard any of them. His log showed that he heard WNP enroute to Melbourne, but WNP was the *Bowdoin*, not the *Peary* which did all the broadcasting.

The only 2-way communication (CW) with WAP (*Peary*) was on August 19 and afterward. And Schnell makes no mention in a 7-page article in the January 1926 *QST* detailing his voyage of any voice reception other than from 2NM, Gerald Marcuse in Surrey, England. Schnell's logs are printed in various issues of *QST* in late 1925 in the "Traffic Department" pages (not always included in newstand issues, or saved by libraries).

In endnote 66 (p. 220), the authors admit that the "off Tasmania" part of the story is probably wrong, and that McDonald got confused by some messages to the 1923-24 MacMillan expedition that were heard off Tasmania by the British Navy. But, they still insist that Admiral Coontz heard Eskimo songs, largely on the basis that so many Navy men would not have engaged in a public-relations fraud.

But where is the fraud? The only person who claimed this reception happened was McDonald, 20 years later, with MacMillan following his lead. However, MacMillan was in no better position to know who was receiving his broadcasts than McDonald — they would not know most of what went on until they returned to civilization several months later.

Do you suppose McDonald ever got the real picture? I can just imagine the Zenith flunkies telling him, "We screwed up and didn't get to rebroadcasting your concerts at all." There's a one-way ticket out the door. "Oh, yeah, Commander, they came in just great, sounded like college yells. We've got reception reports from New Zealand and all over."

If Schnell had actually heard McDonald's singing Eskimos, it is simply incredible that he would not have said so; it would have been the highlight of the cruise. His comment on hearing the *Peary's* transmitter, "Lord, what a note!" (italicized in endnote 66, p. 220), refers to CW tone, not singing; that was common ham parlance at the time.

It would appear, based on a paraphrased but unseen — and undated — letter, that McDonald had something to do with putting Schnell on the USS *Seattle* (endnote 43, p. 219). Here is a bit of contrary hard evidence, from the typescript reminiscences of A. Hoyt Taylor (head of the Naval Research Laboratory), as annotated by his colleague Leo Young, p. 197: "I persuaded the Navy Department to call Fred Snell (sic) back to active duty and assign him to the staff of the United States Fleet Radio Officer, who was then Commander Hooper. Hooper, at that time, was not at all sold on high frequency. When he came back from that cruise, he was enthusiastically in favor of it." (Thanks to Ed Lyon for the Taylor typescript.)

Taylor goes on to describe Schnell's preliminary work at the laboratory on the equipment that would be used during the cruise.

Now the authors have McDonald planting Schnell not only on the USS *Seattle*, but also at the Naval Research Laboratory to build and test the equipment beforehand. I would say that the Com-

mander was badly mistaken about his degree of involvement in this matter.

FRED CASSENS

I should say a word in defense of Fred Cassens, who is no longer here to speak for himself. He worked for the Commander for twenty years and in a responsible position, not as an office boy or favorite nephew. Because of ulcers, he retired in 1946, to run his own radio-repair business. He certainly had a viewpoint, as did everyone who worked for McDonald, but nearly everything he told me turned out to be independently verifiable.

The only thing I had major doubts about was his story of failing 1928 power-pack capacitors bought from Majestic, as nothing ever appeared in the trade press about this. But the authors have found documents showing not only that this did happen, but even that McDonald felt Majestic was out to get him (endnote 98, p. 212). Reread my paragraph on this (Vol. 3, p. 265) and see if it doesn't agree precisely with the authors' "new" information.

FINANCIAL DATA

There is little discussion of Zenith's finances in this book. One would think that the company went from strength to strength with an unbroken succession of engineering advances, somehow pre-ordained. This is far from the truth. Appendix II is a chart of sales, profits and net worth from 1924 to 1935, but neither the actual numbers nor any production figures are given. I printed the full income accounts in *Radio Manufacturers of the 1920s*, obtained from annual volumes of *Poor's Manual of Industrials*. Surely much more detail is available in the vaunted "corporate archives."

SUMMARY

Cones and Bryant claim, without giving any specifics, that my chapter on Zenith is "seriously flawed" (endnote 69, p. 210). But so far as I am aware — and this applies after reading their new book — there are no factual errors in my chapter. *Au contraire*, quite apart from our respective opinions of McDonald's character, *their* book has many errors of fact and interpretation.

It is entirely up to a book's authors whether to get a dialogue going on resolving conflicts before publication, or to make the corrections afterward. Attempting to use "scholarly" endnotes to have the last word is immature.

My books are about radio manufacturing, but Zenith's best stories are not the pretty cabinets they made. Instead, they're about McDonald's derring-do — his Arctic explorations, feuds with the Department of Commerce and other radio companies, and flair for sales (and self) promotion. What other radio executive could be in command of a ship on an Arctic expedition?

All I ask is to get the story straight — no company hype, no delusions that the Commander was God's gift to mankind.

(Alan S. Douglas, Box 225, Pocasset, MA 02559)

Alan Douglas, an electrical engineer, has written over 100 articles in *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.

OCTOBER 1984 THE COLLECTORS CORNER

The "Collectors Corner" will appear as a regular feature of Antique Radio Classified. It is an attempt to build knowledge and interest of radio collectors primarily in AC home receivers of the late 20's to the 1940's, with emphasis on the lesser known and more unusual styles and brands. Helpful restoration hints will be given where possible. Any questions, comments, or suggestions on this column, the radios featured, or on any other radios may be sent to Frank Heathcote, 1235 N. 3rd St., Logansport, IN 46947. Please include a self-addressed stamped envelope for replies.

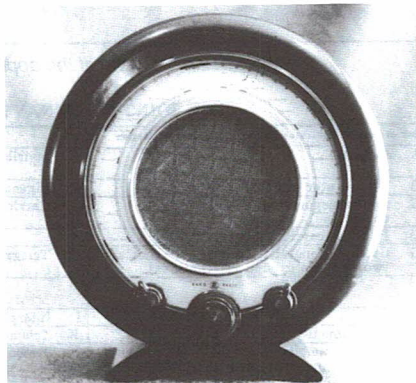
An unusual radio from England is featured this month. Style and mechanics are quite unlike that of any American set. What looks to be a radio made for a specific segment of the radio market was a long time big seller in England.

This is the Ekco model A-22, manufactured by E.K. Cole Ltd. of Southend-On-Sea, Essex, England. It is a 3 band superhet using 4 tubes. The bands covered are the European long wave broadcast band 950-2000 meters, 310-150 kc., medium wave 200-550m, 1500-540kc. and short wave 16-50m, 19-6mc. It operates from 200-250 volts AC, 40-80 cycles. The A-22 was released in November of 1945 selling for the equivalent of \$72. The plastic cabinet was available in walnut or black with brass or chrome trim respectively.

The A-22 was designed by architect Welles Coates and was featured in the 1946 "Britain Can Make It" Exhibition held at the Victoria & Albert Museum in London. This was a showcase for the world to see that post war British industry was alive and kicking. The striking round shape first appeared with the AD65 of 1934 and marked a distinct break from traditional radio design. Other Ekco models used the popular design well into the 1950's.

The A-22 is 14 1/2" tall, 13" wide, 7" deep, and weighs 18 lbs. The chassis consists of a vertical circular member with 3 tubes mounted horizontally along with filter capacitors, choke, IF transformers and 6" speaker. Bypass capacitors and resistors are mounted on a flange on the outside edge of the circular chassis.

The rectifier tube and power and output transformers are mounted on a horizontal compartment with switches, tuner, volume control and trimmers mounted below. The tuner is friction driven. A pulley off the tuner drives an arm with a dial light on the end. This travels around the dial scale providing spot lighted tuning indication.



Ekco A-22

Four Mullard tubes are used. A metallized (spray shield) ECH35, a triode-hexode works as an oscillator and RF amplifier. A metallized EF39, a variable mu RF pentode operates as IF amplifier. An EBL31 double diode pentode operates as AVC, 2nd detector, and output tube. High voltage is supplied by an AZ31 full wave rectifier tube.

The art deco styling of the A-22 makes it a very collectable piece. It is an interesting addition to any collection. I hope everyone enjoyed some information on this somewhat unique (to the U.S. anyway) radio.

Next month a Jesse French model G will be featured. Happy collecting! - Frank and Diana Heathcote.

WITH THE COLLECTORS

Joint Army-Navy Numbering System

COMPILED BY RAY BINTLIFF
WITH INFORMATION CONTRIBUTED BY ANTON GEORGE

While at an auction or flea market have you ever spotted a piece of military electronics and wondered what it was? The U.S. military has a system for identifying its equipment. It is called the Joint Army-Navy or AN Nomenclature system. Although well known to avid collectors of military equipment, this system may also be of interest to less experienced or new collectors.

An example of the application of this system is shown in Figure 1. The first two letters (AN) indicate that the following nomenclature uses the AN system. The next group of letters and numbers (ARC-3), called the "set or equipment indicator number," describes a specific piece of equipment. In this example, the letter "A" tells us that the set is airborne equipment; the "R" indi-

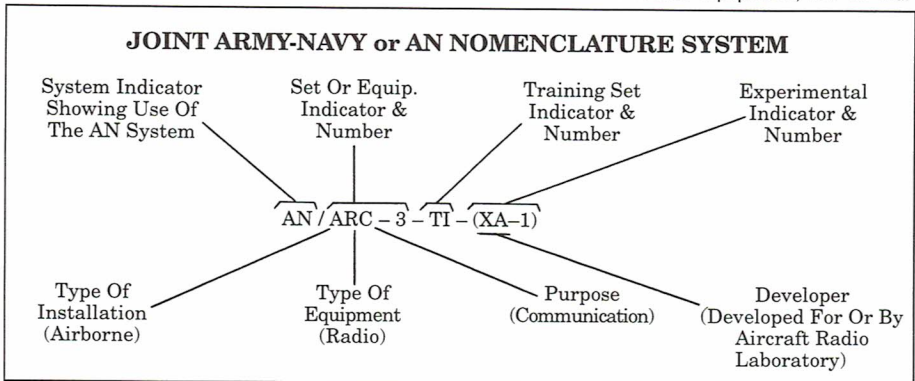


Figure 1. An example of the application of the AN Nomenclature System.

JOINT ARMY-NAVY NOMENCLATURE SYSTEM

Set or Equip. Indicator Letters	Type of Installation	Type of Equipment	Purpose
A	Airborne	A Invisible light, heat radiation	A Auxiliary assemblies (not complete operating sets)
B	Underwater mobile, submarine	B Pigeon	B Bombing
C	Air transportable (inactivated, do not use)	C Carrier (Wire)	C Communications
D	Pilotless carrier		D Direction finder
G	Ground, general ground use (includes two or more ground installations)	G Telegraph or teletype (wire)	G Gun directing
			H Recording (photographic, meteorological, and sound)
		I Interphone and public address	
K	Amphibious	K Telemetering	
M	Ground, mobile in a vehicle which has no function other than transporting the equipment	M Meteorological	M Maintenance and test assemblies
		N Sound in air	N Navigational aids
P	Ground, pack, or portable	P Radar—	P Reproducing (Photo and sound)
		Q Underwater sound	Q Special, or combination of types
S	Shipboard	R Radio	R Receiving
		S Special types, magnetic, etc., or combinations of types	S Search
T	Ground, transportable	T Telephone (wire)	T Transmitting
U	General utility (includes two or more general classes)		
V	Ground, vehicular, installed in vehicle designed for other functions, i.e. tanks	V Visual and visible light	
W	Underwater, fixed		W Remote control
		X Facsimile or television	X Identification and recognition

Figure 2. A 3-column list of the letters used in the AN Nomenclature System.

EXPERIMENTAL INDICATORS

In order to identify a set or equipment of an experimental nature with the development organization concerned, the following indicators will be used within the parentheses:

XA	Aircraft Radio Laboratory, Writhe Field, Dayton, Ohio.
XB	Naval Research Laboratory, Anacostia Sta., Bellville, D.C.
XC	Coles Signal Laboratory, Red Bank, New Jersey.
XE	Evans Signal Laboratory, Belmar, New Jersey.
XG	USN Electronics Laboratory, San Diego, California.
XM	Squier Signal Laboratory, Fort Monmouth, New Jersey.
XN	Navy Department, Washington, D.C.
XU	USN Underwater Sound Laboratory, Fort Trumbull, New London, Connecticut.
XW	Watson Laboratories, Red Bank, New Jersey.

Example of AN type number:

AN/ARC-3 (XA-2) Second experimental type developed for Aircraft Radio Laboratories.

Figure 3. The 2-letter designators used with experimental equipment.

cates that it is a radio and the "C" shows that the set is used for communications. The number "3" distinguishes this particular model from the many types of airborne communication sets.

Figure 2 provides a three-column list of the letters that can be used to describe a set. The first column lists 13 letters used to describe the types of installation. The second column shows the identifiers for the various types of equipment and the third column provides a list of letters used to identify the set's purpose. For example, the APN-4 was an electronic altimeter used in aircraft of World War II vintage.

Most equipment that you are likely to encounter will carry the 3-letter identifier followed by a single or 2-digit number. However, the AN system also provides for additional alphanumeric combinations to identify training sets and experimental models. Refer back to the example in Figure 1 to see how the experimental and training set designators were added to the basic equipment identifiers. Figure 3 shows the two-letter designators used with experimental equipment.

But wait, there's more. The AN system also has provisions for identifying components. Figure 4 contains a list of component indicators. The complete list is rather long, so we have only included those items that are radio-related and likely to be of interest to radio collectors. A complete list may be found in the third and fourth editions of the *Reference Data for Radio Engineers* published by International Telephone and Telegraph Corporation.

The information provided in this article represents the AN nomenclature system as it existed in the late 1940s — just the right vintage for collectors.

Reference:

Reference Data for Radio Engineers, 3rd Edition.
Federal Telephone and Radio Corp.

(Anton George, 7203-39th Ave., Kenosha, WI 53142)

(Ray Bintliff, 2 Powder Horn Ln., Acton, MA 01720)

TABLE OF COMPONENT INDICATORS

INDICATOR	FAMILY NAME	INDICATOR	FAMILY NAME
AB	Support Antenna	IP	Indicators, Cathode-Ray Tube
AM	Amplifiers	LS	Loudspeakers
AS	Antenna Assemblies	M	Microphones
AT	Antennas	M	Meters, Portable
CK	Crystal Kits	OS	Oscilloscope, Test
CR	Crystals	PP	Power Supplies
DA	Antennas, Dummy	RD	Recorders and Reproducers
DY	Dynamotors	RG	Cables and Trans. Line, Bulk RF.
F	Filter	RT	Receiver and Transmitter
FR	Frequency Measuring Devices	TN	Tuning Units
G	Generators	TS	Test Equipment
H	Heads, Hand, and Chest Sets	TT	Teletype and Fax Apparatus
HC	Crystal Holder	TV	Tester, Tube
IL	Insulators	UG	Connectors, R.F.

Figure 4. Partial listing of component indicators used in the Joint Army-Navy Nomenclature System.



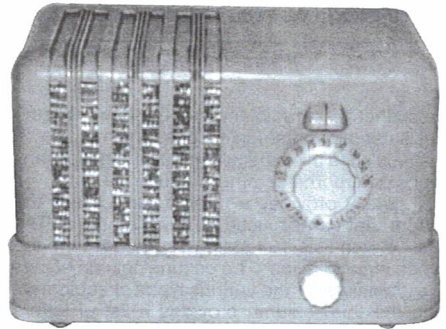
PHOTO REVIEW



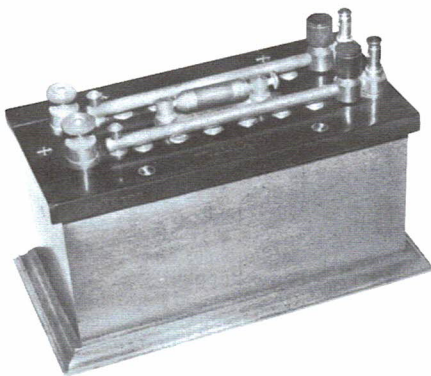
This column presents in pictorial form many of the more unusual radios, speakers, tubes, advertising, and other old radio-related items from our readers' collections. The photos are meant to help increase awareness of what's available in the radio collecting hobby. Send in any size photos from your collection. 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.



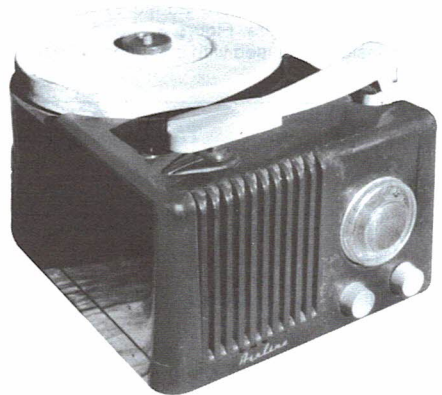
RCA VENETIAN STYLE PIN-UP LAMP – This 1950s illuminated RCA dealer sign was found new in its original carton. (Guy Forstrom – Quinnesec, MI)



GENERAL ELECTRIC MODEL C400 – Made in Toronto, Ontario, Canada, this 4-tube set measures 7 1/4" x 4" x 5". The plastic cabinet is a marbled robin's-egg blue, mint green, and white, with two white knobs. (Wayne Michiels – Tillsonburg, Ontario, Canada)

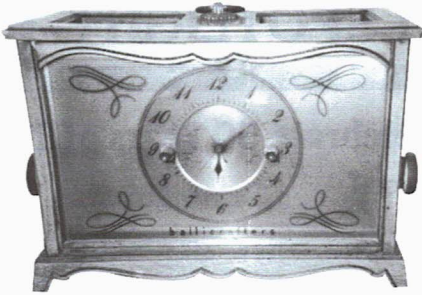


MORRIS E. LEEDS & CO. CRYSTAL SET – I'm told that Morris Leeds paired up with Northrup later on to form "Leeds & Northrup." This set is undated. (H. K. Fredrickson – Kemble, Ontario, Canada)

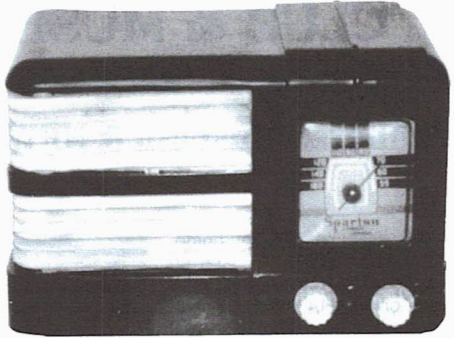


WARD'S AIRLINE RADIO/PHONOGRAPH, MODEL UNKNOWN – This 3-speed, 4-tube model has a bright red cabinet with white tone-arm, turntable, and knobs. I saw one very similar to it in a Sears Roebuck ad in 1950. (James Apthorpe – Leesburg, FL)

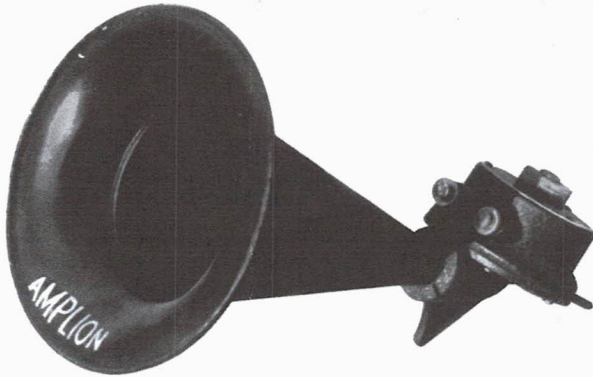
PHOTO REVIEW



HALLCRAFTERS MODEL 51C2 CLOCK/RADIO – This appliance-switching alarm clock/radio with 2 loudspeakers is encased in a blond wood cabinet. The volume control and the station selectors are on each side. The tube types are 12BE6, 12BD6, 12AV6, 50C5, and 35W4. (*Francis Yonker – State College, PA*)



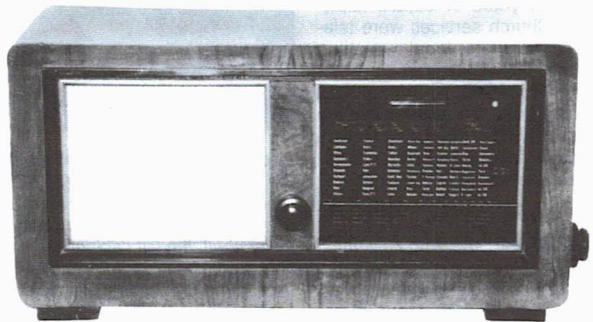
SPARTON MODEL UNKNOWN – Made in London, Ontario, Canada, this 5-tube set measures 7 $\frac{1}{2}$ " x 4 $\frac{3}{4}$ " x 5". The cabinet is black Bakelite with white and black marbled knobs and wraparound grille. (*Wayne Michiels – Tillsonburg, Ontario, Canada*)



AMPLION AR-39 HORN SPEAKER – This is but one of the many types of speakers offered by the Amplion Corp. of America. Amplion marketed speakers specifically in Europe, but also all over the world. This one has a wrinkle-finished horn bell. The driver has molded feet allowing it to become its own base. (*Dave Crocker – Mashpee, MA*)

KÖRTING HONORIS 39W – This was a top-of-the-line radio in Germany in 1939. Although the name Körting was used after World War II in West Germany, the set was manufactured in Leipzig, and the factory could not have survived the war. The configuration of dial, speaker and side knobs was typical of the period. This particular set was brought to the United States from Greece, where it had survived the German occupation and was used for years, as evidenced by the many repairs, nonoriginal parts, and circuit modifications.

It has now been restored electrically to near-peak original performance. The cabinet finish is still the original; some knobs are not. The tube types are AK2, AF3, ABC1, AL3, and AZ1. (*Jorge Llacer – Los Gatos, CA*)



CLUB & MUSEUM SPOTLIGHT

Amherst Museum & NFWA Celebrate 50 Years of TV

BY LARRY BABCOCK

Television came to my hometown when WBEN-TV started broadcasting from Buffalo, New York, on May 14, 1948. To celebrate the golden anniversary of local TV, the Niagara Frontier Wireless Association (NFWA) has placed a detailed exhibit of early television artifacts in the Amherst Museum's Hall of Communication. As many of you know, NFWA maintains an exhibit of early communications items in the museum located just north of Buffalo. The exhibit will be available until at least the spring of 1999.

This new TV exhibit fulfills the club's customary plan to present a different exhibit in time for each annual NFWA/AWA antique radio meet, which will be held at the museum this year, on August 8.

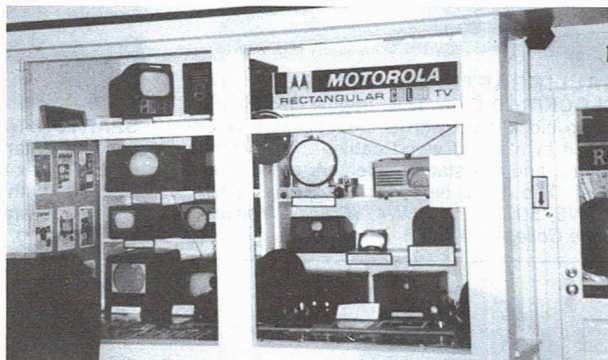
The television artifacts are shown behind windows made to depict an old radio storefront. This also isolates the artifacts from viewers while allowing easy viewing and minimizing dust. Included are both mechanical disk and scanning drum systems from the 1930s as well as early electronic sets of the type that were used to receive the first WBEN programs.

There were no networks for the first few years of Buffalo television. Church services were televised as were local wrestling shows. The station even transmitted the picture of a ticking clock and pointed the camera out the studio window to show viewers the cars going up and down Delaware Avenue.

NFWA/AWA MEET - AUG. 8

Last year, the August annual joint meet with AWA drew more than 200 collectors. The flea market opens at 8:00 A.M. and will continue until noon. Items from the estate of the late John Myers, including 1920s-1950s radios, speakers, paper, tubes, etc., will be auctioned at 11 A.M. At 12:30 P.M., there will be a talk on early TV.

The Amherst Museum is in Erie County on the south side of the Tonawanda Creek. From the New



The NFWA storefront television display.



Upper left is a 3" Pilot TV and magnifier (to the right), marketed in 1949 as the first TV under \$100 (\$99.95). Upper right is a 1930s Baird TV receiver, which looks much like a cathedral radio, but there is no speaker. It was used with a scanning disk and neon bulb picture lamp. On the lower shelf, the left cabinet set is a Baird 1930s mechanical TV receiver. The cabinet to the right is its matching Baird scanning drum. To the far left is a home-brew scanning disk. The two 3-tube amplifiers shown are resistance-coupled and were used to drive the neon bulb kino picture lamp. Several of these neon bulbs are shown, as are several early 1930s TV magazines, with front cover predictions of the appearance of TV.

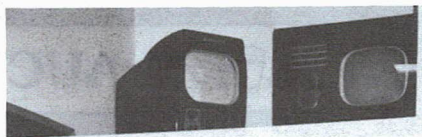
York Thruway take Exit 49 (Transit Rd., Rt. 78) north for nine miles. Turn left on Tonawanda Creek Rd. just before entering Niagara County. Proceed west two miles to the museum. If you wish to come

on days other than the meet, call ahead to the museum at (716) 689-1440. For more information about the meet, call me at (716) 741-3082 or Gary Parzy at (716) 668-2943.

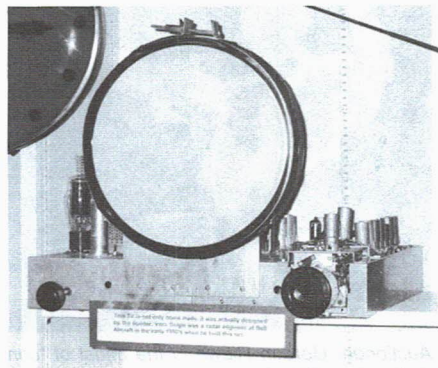
(Larry Babcock, 8095 Centre Ln., East Amherst, NY 14051)

Information on the Niagara Frontier Wireless Association can be obtained from Gary Parzy, 135 Autumnwood, Cheektowaga, NY 14227. Annual dues are \$9.00. The club publication, "The Chronicle," is published quarterly.

Larry Babcock, a retired electrical engineer, traces his interest in anything radio-related to his father's radio and TV business. He specializes in equipment made in the Buffalo, N. Y., area, such as Federal and Wurlitzer, as well as early sets of the 1920s. An inveterate auction attendee, he is an excellent contributor to A.R.C. reports.



Top shelf: a 10" Admiral in a brown plastic cabinet and a 10" Crosley with a continuous tuner, which also receives the FM band. Second shelf down: an unusual Temple TV with a built-in magnifier lens and a 7" Teletone portable in a leatherette case; this set includes a built-in rabbit-ear antenna that collapses like a tape measure. Third shelf down: a 7" Admiral in a brown plastic case and a 1948 Hallcrafters in a metal case; this set is push-button tuned and includes Channel 1. Bottom shelf: a 10" Admiral in a brown Bakelite cabinet and a large RCA 8TS30 TV. A UHF converter, numerous full page ads for early TVs, and a DuMont TV sign are also in the exhibit.



An early 1950s home-brew TV, which was constructed and designed by the builder, Vern Siegel, a radar design engineer at Bell Aircraft at the time. He later invented the automobile radar detector.

My Tiny Mite 2-Tube Regenerative set

BY RICH URMANO

After years of stumbling across the many construction articles about 1- and 2-tube regenerative sets, the information in Lindsay's books [Lindsay Publications, Inc., P.O. Box 538, Bradley, IL 60915, publishes a number of books dealing with the construction of simple radios from the 1930s] put the hook in me and I was compelled to give it a try. This was to be my first "home-brew" radio.

Using my trusty copy of *The Elements of Radio*, 1955, as a reference, I put together the very straightforward 2-tube regenerative radio using 6C5 metal triode tubes, as shown in Figure 1. Gathering coil data from the books offered to radio collectors, I was able to wind my own set of coils covering both the AM and SW bands. The radio uses high impedance headphones, and my Brandes Superior phones do it justice. The radio has truly amazed me in its sensitivity and its ability to copy DX and SSB/CW from all over the world — loudly, I might add.

I am already pondering my next set, as I have gained the confidence necessary to put together

one with an RF stage and maybe even a power pentode for loudspeaker operation. This little set guarantees many hours of truly satisfying listening.

(Rich Urmano, 24 Risleys Rd., Hewett, NJ 07421)

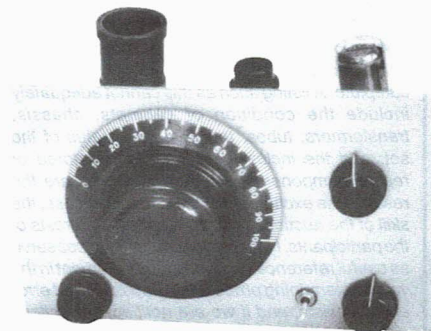


Figure 1. The Tiny Mite 2-tube regenerative receiver.



AUCTION REPORT

Tony Molettiere Radio and Jukebox Auction Souderton, Pennsylvania — May 7-9, 1998

CONTRIBUTED BY RAY CHASE AND LUDWELL SIBLEY

The Molettiere Auction at Souderton, Pennsylvania, May 7-9, was highly advertised as "The Really Big One" of the year, and it did not disappoint. Actually, it was two auctions — two days for radios and one day for jukeboxes and accessories. The auctioneer was Gordon Riewe and Associates from Lapeer, Michigan, a company well known for selling amusements memorabilia but not quite as knowledgeable about radios.

Tony Molettiere had amassed an extensive collection and the multicolored 8-page advertising brochure prepared for the auction listed over 150 jukeboxes, 150 jukebox remote speakers and wall units, 1,000 antique radios, 2 collector cars, and many other amusement-related items.

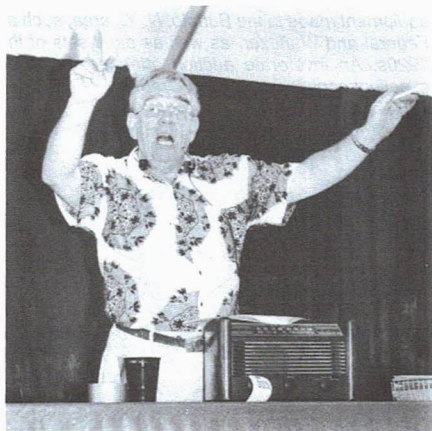
The radio merchandise was scheduled for Thursday and Friday, May 7 and 8, with the jukeboxes and related items for Saturday, the 9th. This schedule avoided a conflict with the Schooleys Mountain, New Jersey, radio meet scheduled for Saturday.

Tony's radios were located in three old brick buildings, and the auction was held under two large tents behind the buildings. The preview on Wednesday for the Thursday auction was worth the trip up four flights of stairs to a hot loft. Previews on the other two days preceded the 10:00 A.M. auctions.

Gordon Riewe had prepared a catalog, but it was largely devoid of model numbers and accurate descriptions. The result is that the listing below is shorter than usual for such a large auction.

Members of the Delaware Valley Historic Radio Club were taken on as runners for the auction and helped clarify things. Notably, Pete Grave, Charles Class, and Mike Koste moved goods along with great speed and endurance.

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.



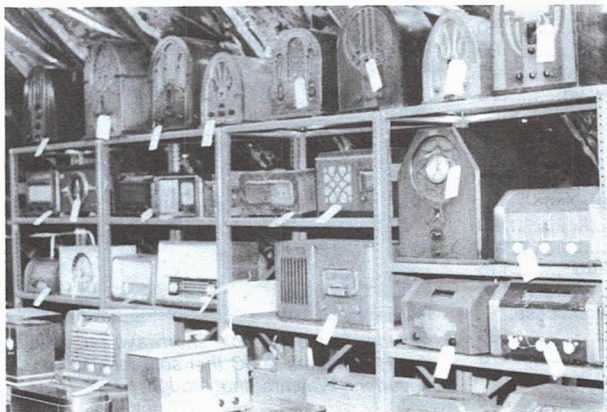
Auctioneer Gordon Riewe in the midst of "conducting" another radio sale.

There was a great deal of confusion over a buyer's premium. Wednesday buyers were told that it would be 5 percent, but apparently some buyers noted the premium had not been advertised. The result was that the premium was cancelled on Thursday morning. There was a \$10 per day admission charge or \$20 for all three days. This fee was not refundable and was intended to keep out curious nonbuyers.

Most of the radios were 1930-1960 vintage of all types. There were few battery sets, no tubes, and very little in the way of paper and documentation. Some radios were very well restored or in good original condition, but many were "as found" or needing work.

The catalog listed 1,067 radio lots for the two days, but some were pulled by the owner and others were combined so the number of radio lots totalled about 875. Buyers came from Canada and surrounding states, but the huge auction tent never seemed to be more than one-third full. Nonetheless, bidding was usually spirited, and the more desirable items drew good prices. The radio portion of the sale netted slightly over \$60,000.

Among the highlights of the sale were a Scott 8FM Phantom selling at \$1,750 and two Scott Allwave 12s, one at \$1,700 and the other at \$825.



Some of the many cathedrals, tombstones and wooden radios of the '30s, '40s, and '50s that were included in the auction. At right is a Philco Model 70 grandfather clock radio that sold for \$600.

Catalin sales included an Emerson AV190 selling at \$1,550, an Emerson 564 at \$1,150, a Bendix 526 at \$500, and a Fada 760 at \$1,000. A Philco Model 70 grandfather clock brought \$600.

Although the weather was fine for Thursday's sale, on Friday the rains came, and rivers of water ran through the tents. At times the noise of rain on the tent nearly drowned out the auctioneer. Collecting one's purchases at the end was a harrowing experience as the downpour continued. It was a day for the truly dedicated buyer.

Jukeboxes. Day three of this auction demonstrated that jukeboxes go for big money — sales totalled \$285,000. Many jukeboxes sold for over \$1,000 each. For example, two Wurlitzers brought \$15,000 and \$13,500 respectively. Some rare brands, such as Aireon and RCA, also appeared on the block.

Among the jukebox-related items were wall boxes, arcade machines, slot machines, and advertising signs and clock. Also included were a lot of charming nonelectronic collectibles like coin-op scales, two 1950-1960 cars, a merry-go-round horse, and even an amusement-park Mutoscope. Only a few of the 350 jukebox lots are included in this report. See the June 1998 Delaware Valley Historical Radio Club *Oscillator* for a more complete listing.

A novel touch was the use of a pair of huge TV monitors to sell the jukeboxes. Used with a roving camera, the monitors eliminated the need to move the goods in front of the audience.

Our listing is but a small portion of this huge auction. It gives some highlights and a flavor of the range of types and prices.

All prices are rounded down to the dollar, and lower priced items missing model identification are not listed.

e=excellent, vg=very good, g=good, f=fair, p=poor, NT=no tubes, WT=with tubes, N.I.B.=new in box

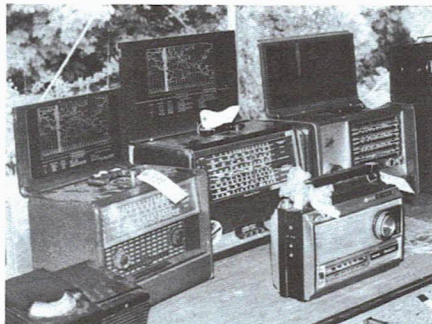
Admiral 10" console TV, small, wood \$40
 Admiral 6001 table, plastic 30
 Advertising clock, "Westinghouse TV Radio Service," "RCA Picture Tube", (2) ... 100

Air King plastic table, (2)	25, 40
Airline 62316 table, wood, p	40
American Radio Associates coin-op radios, (2) ...	70
Amperite desk microphone, g	100
Arvin 518A table, wood, 4 knobs, NT	65
Arvin Hop-A-Long Cassidy radio, vg	325
Arvin small tombstone, f	125
Asco coin-op, metal cabinet	25
Atwater Kent 20, small box, NT	60
Atwater Kent 33 in Red Lion drop-front desk, w/speaker, vg	225
Atwater Kent 40	45
Atwater Kent 40, in a good Pooley cabinet, w/speaker	65
Atwater Kent 40, w/speaker	125
Atwater Kent 44 and E speaker	110
Atwater Kent 55 metal table and speaker	210
Atwater Kent 55, chassis only	45
Atwater Kent 60, in Kiel table	275
Atwater Kent 145, g	155
Atwater Kent 165 cathedral, g	325
Atwater Kent 286 console, vg	65
Atwater Kent F4 speaker, in advertising cabinet, "C. Proctor Radio Svc.," vg	175
Atwater Kent horn speaker	70
Belmont tombstone, 3 knobs, vg	160
Bendix 526 Catalin, dark green	500
Bendix "Aviator" table, plastic	30
Bicycle radio, (3), and a novelty radio	20
Blaupunkt 50s console, w/player, side-by-side, ...	15
Blaupunkt console, w/player, 50s, (3)	40, 50, 110
Brandes cathedral-shaped speaker	40
Bulova table, green plastic	40
Candlestick telephone, (2)	35, 85
Champlain table, wood, w/player, 4 knobs	30
Chevy 1957 novelty transistor radio	80
Clarodyne large table battery 3 dialer, speaker grille on each side, NT	135
Columbia coin-op radio	25
Cookie Jar novelty radio, ceramic, w/salt and pepper, as is	30
Cookie jar novelty radio	30
Coradio coin-op radios, (2), one N.I.B.	55
Crosley clock radio, light green "Dashboard" ...	145

(Continued on following page)

(Molettiere Auction, continued)

Crosley console, 10-tube, 4 knobs, g	50
Crosley E30MN table, brown plastic	30
Crosley Musical Chef, white plastic	25
Crosley Super 11 console, 4 knobs, vg	175
Crosley table, chartreuse, 1950s "dashboard," (2)	120, 140
Crosley table, green, "dashboard"	85
Crosley table, maroon plastic, g	145
Crosley table, red, "dashboard", repaired crack, well done	80
Crosley table, small, white plastic	105
Crosley table, small, tan, "dashboard"	115
Crosley table, white, "dashboard"	115
Delco 32-volt dynamotor in small wood case, for Delco farm set, rare	120
Delco 1107 tombstone, g	475
Delco cathedral, originally a 32-volt farm set, converted to 110-volt AC operation ...	200
Delco R1231 table, brown plastic	35
Desk phones, (2)	45
DeWald table, AM/FM, brown plastic	25
Dynakit components, tuner, preamp, and amp	300
Echophone table, plastic, 4 knobs	85
Edison 7R early console, w/sliding doors, 2 chassis, nice	225
Edison dictaphone and misc. equipment.	20
Electronic Corp. of America table, brown plastic, 4 knobs, g	50
Emerson 520 table, brown and white, plastic, (2)	100, 100
Emerson 564 Catalin, small, mustard	1,150
Emerson 587A table, white plastic	69
Emerson AU 190 Catalin, orange/yellow ..	1,550
Emerson table, red plastic, nice, but switch added to cabinet side	500
Erla cathedral, w/clock, 2 knobs, g	325
Espy 581 military entertainment radio, metal case	35
Fada 652 Catalin, orange/red	700
Fada 760 Catalin, orange w/white handle	1,000
Fada battery set, w/fold-out loop antenna, WT, probably pot metal problems	80
Farnsworth console, 10-tube, 4 knobs, push buttons, g	60
Farnsworth table, blue and white plastic, (2) ...	100
Federal B30 table, wood, WT	30
Fisher 21R Custom Electra tuner	20
Fisher 40-watt tuner	130
Fisher 80 tuner, (2)	10, 30
Fisher 101B amp	45
Fisher 101R tuner	25
Fisher 400CX tuner	375
Fisher 500 stereo tuner	25
Fisher 500B tuner	75
Fisher FM-100B tuner	25
Fisher FM-100C tuner	65
Fisher FM-200B tuner	65
Fisher FM-80 tuner	10
Fisher FM-90X tuner	25
Fisher reverberation unit, N.I.B.	50
Fisher speakers, pair	20
Fisher tuner, "The President"	25
Fisher X101C tuner plus stereo cabinet and tuner, Heritage series, plus empty cabinet	50
Freshman 3 dialer, NT	25
GE A-55 console, 4 knobs, g	50
GE film strips and records, training course "Electric Power," in case, ca. 30s or 40s	65



Included in the portable shortwave radios were this Hallicrafters 500C that sold for \$100 and a Silvertone Wayfarer that brought \$125.

GE H116 console, f	10
GE L916 console, 10-tube, g	35
GE M61 stepped cathedral, g	165
GM 110MM cathedral, vg	275
Granco Hi-Fi AM/FM tuner	65
Grunow All-Wave console, 4 knobs, p	40
Grunow table, wood, w/chrome trim, vg	175
Hallicrafters 500C portable, green, vg	100
Hallicrafters S-107, dial glass broken	30
Hallicrafters S-36A	95
Hallicrafters S-38, f	35
Hallicrafters S-40A	40
Hallicrafters S-85	50
Hallicrafters S-94 Civic Patrol, (2), f	20
Hallicrafters SX-101A	175
Hallicrafters SX-25	65
Hallicrafters SX-62A, g	200
Hallicrafters TW 1000, g	175
Hallicrafters TW1000	55
Hammerlund HQ129X	70
Hewlett Packard HP608 signal generator, vg ..	55
Hickock 209A large VTVM	70
Hickock tube tester, (3)	90, 100, 110
Home Brew broadcast superhet, in metal cabinet, 8 tubes, nice	35
Home brew 2 dialer, looks factory, w/7 UV199s, 5 in audio section, vg	175
Howard table, wood, small, 2 knobs, g	60
Howdy Doody puppet novelty, w/transistor radio inside	25
Jewel clock radio, vg	35
Kamraphone, early portable mechanical phono player, very small	100
Knight plastic table	30
Lafayette console, w/telephone dial, 6L6 outputs, (2) speakers, f	200
Lasalle cathedral, vg	110
Lyric S-6 grandfather clock radio, vg	380
Lyric small console, 3 knobs, g	45
Lyric-Wurlitzer S65 cathedral	300
McIntosh receiver	200
McIntosh tuner	90
Magictone large bottle radio, w/label	310
Magnavox table speaker, wood, f	120
Majestic 15 grandfather clock radio, vg	500
Majestic 90 console, double-door highboy	45



This Scott 8FM Phantom Deluxe in very good condition brought a winning bid of \$1,750.

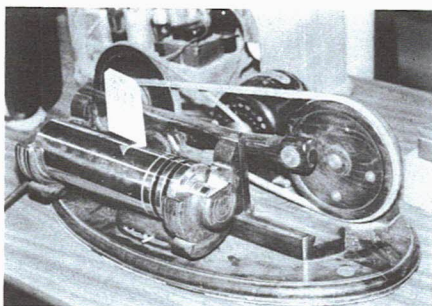
Majestic 130A console, 4 knobs.....	30
Majestic 300 console, ca.1930, g.....	190
Majestic B eliminator.....	25
Majestic console, lowboy, g.....	170
Majestic double-door console, highboy, 3 knobs, g.....	130
Majestic large tombstone, w/chrome trim.....	320
Mantola table, wood, big dial, 30s, 4 knobs ...	80
Marantz 18 receiver.....	50
Mickey Mouse alarm clock radios, (3).....	30
Mickey Mouse clock radio, 50s.....	60
Microphone radio, plastic.....	75
Midwest console, small, 12 loctal tubes, vg ..	125
Motorola 6Y console, knobs missing.....	20
Motorola 7" table TV, wood, g.....	55
National NC 125, g.....	105
Neon Daffy Duck clock. plus another clock....	50
Novelty radios, (8) lots, about 20 ea.....	50 to 375
Peerless cathedral speaker.....	30
Philco 16L lowboy console, 4 knobs, g.....	60
Philco 37-60 cathedral, f.....	70
Philco 37-84 cathedral.....	95
Philco 37-84 cathedral, g.....	75
Philco 38 cathedral, no speaker.....	35
Philco 38-3 console, 4 knobs, g.....	45
Philco 38-61 cathedral, vg.....	170
Philco 38-690 console, w/roll-top front, 20-tube, (2) chassis, multispeakers, g.....	750
Philco 39-7 table, wood, 2 knobs, push buttons, g45	
Philco 40-190 console (2), 4 knobs, push buttons, g....	50, 75
Philco 40-217 console, w/"mystery control," mirror top, grille p.....	130
Philco 41-221 table, plus one other.....	85
Philco 41-296 console, g +.....	70
Philco 42-1013 large console.....	150
Philco 42-340 table, wood, AM/FM.....	35
Philco 44 cathedral, 4 knobs, g.....	200
Philco 48-482 table, wood.....	25
Philco 60 cathedral, (2), g, vg.....	95, 175
Philco 70 grandfather clock radio, vg.....	600

Philco 86 console, highboy, desk-style, vg ..	135
Philco 95 console, nice tapestry grille, g.....	30
Philco 118 console, lowboy, 4 knobs, g.....	85
Philco 610, 4 knobs, g.....	105
Philco 623 Empire tombstone, p.....	45
Philco cathedral, 3 knobs, g.....	100
Philco chairside, g.....	100
Philco Jr. cathedral, g.....	100
Philco lamp/clock radio, vg.....	110
Philco Predicta table TV.....	325
Philco R1116 console, f.....	25
Precision 10-15 counter-top tube tester, g.....	110
Precision 920 tube tester.....	30
RCA console, w/Radiola 60 inside, vg.....	100
RCA floor model tapestry speaker, g.....	65
RCA Radiola 18 and speaker.....	50
RCA Radiola 18, w/hood.....	60
RCA Victor 6K2 console, p.....	10
RCA Victor 7K29A chairside, f.....	45
RCA Victor 87K2 console, restored, vg.....	125
RCA Victor 811K, console, wood, (2), f....	35, 50
RCA Victor 4T cathedral.....	75
RCA Victor 16X4 table, wood.....	20
RCA Victor 75X11 table, plastic.....	40
RCA 100A speaker, g.....	30
RCA 103 tapestry table speaker, g.....	85
RCA Victor C6-2 console, g.....	40
RCA Victor K80 console, 4 knobs, push buttons, g ..	45
RCA Victor R4 cathedral, 3 knobs, g.....	300
RCA Victor R28P table, wood, with sliding doors, vg.....	175
RCA Victor coin-op floor model, nice.....	55
RCA Victor coin-op radio.....	25
RCA Victor coin-op radio, metal, (2).....	25, 35
RCA Victor console, w/Cobra changer, late 20s	375
RCA Victor console, w/player.....	125
RCA Victor lighted sign.....	200
RCA Victor lowboy console, 4 knobs, vg.....	100
RCA Victor 45 rpm player.....	75
RCA Victor 45 rpm players, (2).....	45
"Recording" illuminated sign.....	22
Rickenbacker Electro early portable PA amp.	75
SAE Mark VI B receiver and Bogen receiver .	50
Scott 8FM Phantom Deluxe, cabinet and radio, vg.....	1,750
Scott 510 console, blond, AM/FM.....	160
Scott 800B console, w/player, vg.....	500
Scott Allwave 12, g.....	825
Scott Allwave 12, some rust, no speaker ..	1,700
Sherwood tuner.....	22
Silvertone 750 console, g.....	15
Silvertone 6140 console, g.....	30
Silvertone 9000, brown plastic.....	35
Silvertone drum table, w/radio built-in, double doors, 4 knobs, mirror top, very nice.....	200
Silvertone R1591 table, wood, p.....	35
Silvertone small plastic.....	250
Silvertone table, small, black Deco, plastic .	475
Silvertone Wayfarer, Trans-Oceanic-style, g	125
Sparton console, cut-off legs.....	280
Spice Chest radio.....	50
Splitdorf RV695 battery set, WT, vg.....	190
Statler Hotel radio sign, framed.....	20
Stewart-Warner console, lowboy, ornate double-door.....	100
Stewart-Warner "Fireside Radio", like chairside but smaller, unique.....	170

(Continued on following page)

(Molettiere Auction, continued)

Stewart-Warner R1825 console, 4 knobs, f ...	25
Stewart-Warner small drop-front table, w/radio built-in, 4 knobs, push buttons, vg	175
Stromberg-Carlson 260L console, g	150
Stromberg-Carlson double-door ornate console, 5 knobs, g	350
Tektronix 524 scope	25
Thomas Talker table speaker	15
Thompson horn speaker, open driver	120
Tom Thumb Junior portable, in simulated alligator case	65
Radio hotel coin-op radio, very nice	70
Victor 78 rpm Victrola, floor model, g	200
Westinghouse Aereola Sr., with a Type 30 tube, headset	100
Westinghouse H188 table, Art Deco, black plastic	65
Westinghouse highboy console, 11-tube	100
Westinghouse "Refrigerator Radio"	90
Westinghouse WR8 Columnaire clock radio, p. 130	
Westinghouse WR12 Columnaire clock radio, g	280
Westinghouse WR12 table, wood	55
Westinghouse WR186 table, wood	60
Zenith 5H40 Trans-Oceanic	50
Zenith 5S228 tombstone, 3 knobs, vg	180
Zenith 6V27 large tombstone, farm radio	375
Zenith 8G005 Trans-Oceanic	175
Zenith 10S609, 40s console, black dial, f	55
Zenith console, 7-tube, black dial, Deco	75
Zenith console, 9 tube, Deco, f	130
Zenith console, 10-tube, Deco, f	75
Zenith fabric portable, airplane grille	100
Zenith G500 Trans-Oceanic	180
Zenith half-round chairside, black dial (not shutter), g	475
Zenith L66 Trans-Oceanic w/book	150
Zenith shutter-dial console, g	325
Zenith table, wood, Erwin cabinet, unusual..	110
Zenith Trans-Oceanic 3000-1 transistor radio, w/12-volt power supply, g	200
Zenith Trans-Oceanic transistor radio, 1968, 11 bands, vg	275
Zenith Trans-Oceanic, leather, g	150



Among the odd items included in the jukebox auction was this unique motorized cocktail shaker that sold for \$90.

JUKEBOX HIGHLIGHTS

Note: Jukeboxes are designated as to record speed and number of selections: (78/12), (45/100), etc.

General/Small Brands

"Orchestra," '30s, wood, (78/20)	\$200
"Singing Towers," restored	4,000
Automatic Instrument Co. Deco, wood	1,500
Cadet CMM1, glass cracked, (45/100)	350
Regina "Hexaphone" cylinder	4,000
Packard Manhattan Playmore, restored	4,750
RCA CE-29, bad veneer, less rear door ..	1,050
United (UMC), high fidelity, (45/100)	350
Williams "Music Mite," floor stand, (45/10)	1,600

Aireon

400 Ogive	700
Turreted wood-metal, (78/24)	500

AMI

"Mother of plastic," restored	3,500
200	3,100
Continental, stereo, w/book, (45/200)	2,200
Continental II, 33/45 automix, (2) ..	2,050, 2,250
Continental II, round	5,000
D80	1,500
E80 (45/160)	550
Sonoramic Sound	450

Chicago Coins

"Bandbox," restored	3,200
"Hit Parade," wall-mount, (45/10)	1,000

Evans

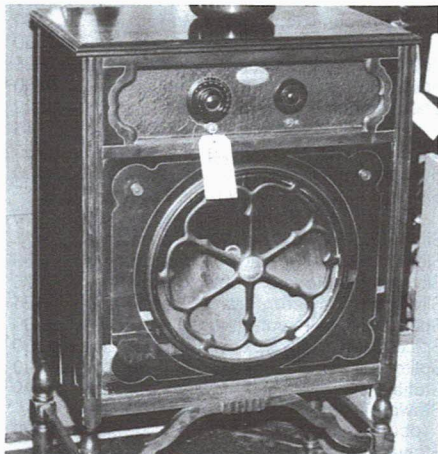
"Constellation," wood, (78/40)	200
"Jubilee," (45/40)	200

Mills

"Empress," (78/20)	1,200
"Ferris Wheel," wood, (78/12)	300
951, (78/40)	200

Rock-Ola

"Comet," (45/120)	900
"Grand Prix" GP160	500
"Hi-Fi" on pipe stand, (45/120)	1,000
"Hi-Fi" wall-mount, (45/120)	550
"Silver Anniversary"	2,300
"Starlet," (4)	100, 125, 150, 200
"Stereophonic 100"	2,000
120	3,250
40 "Junior," (78/12)	1,600
437	100
490-1, (45/200)	450
1422, (78/20)	1,850



This Atwater Kent Model 40 radio in a Pooley cabinet with large cone speaker sold for \$65.

1428, domed, wood	4,250
1436 "Fireball," (45/120)	300
1465, (45/100)	650
1488 "Regis," (45/120)	1,300
Rowe	
Rowe-AMI '60s mono, (45/200)	100
Rowe-AMI MM3 "Music Miracle" stereo (45/160)	90
Seeburg	
"Discothèque" PFEAIU multichannel stereo	300
"High Fidelity Hideaway," loose innards, (45/100)	225
"Two-channel"	1,300
148M "Trash Can," uses carrier-current for commands from remote and for audio to remote spkr., w/ "Wallmatic" remote on floor stand and remote spkr in "organ-pipes" style	8,000
201 Select-O-Matic, (45/200)	4,500
AY100U w/remote "now playing" sign	1,000
HF100G Select-O-Matic, (45/100)	1,400
KD200 Select-O-Matic, (45/200)	2,600
L100 Select-O-Matic, (45/100)	1,850
Quadraphonic, (33/160) (2)	300, 350
S100	750
Select-O-Matic, (45/100)	2,000
Symphonola "Classic"	200
Symphonola, (78/20) (2)	150, 200

Wurlitzer	
"Americana," (45/160)	650
"Colonial" "ship's wheel," wood, restored ..	5,000
"Console" "High Fidelity," 45 rpm	1,250
"Peacock," dome-top, lighted plastic, restored ..	15,000
"Victory," restored	7,500
800, quasi-dome-top, lighted plastic, restored ..	6,500
1015, dome-top, lighted plastic, restored	13,500
1050, domed	4,000
1100	3,500
1450, (78/48)	700
1550	3,000
1800, (45)	3,500
1850	400
2000, (45)	5,000
2510 stereo, (45/100)	500

(Ray Chase, 1350 Marlborough Ave., Plainfield, NJ 07060; Ludwell Sibley, 44 E. Main St, Flemington, NJ 08822-1224)

Delaware Valley Historic Radio Club, P.O. Box 41031, Philadelphia, PA 19127

Gordon Riewe Auction Associates (810) 664-5331. Fax: (801) 664-5291

Robert J. Lee Auction Mesquite, Texas — May 16, 1998

CONTRIBUTED BY RAY CHASE

Main Street Auction in Mesquite, Texas, about 20 minutes out of Dallas, held an auction on May 16, 1998, of the lifetime collection of Robert J. Lee, a local collector. Starting at 12:00 noon, this auction fit nicely between the local Vintage Radio and Phonograph Society swap meet on Saturday morning and the Baughman radio auction on Sunday in Dallas. Obviously, there was good reason to be in town if your interests were in old radio.

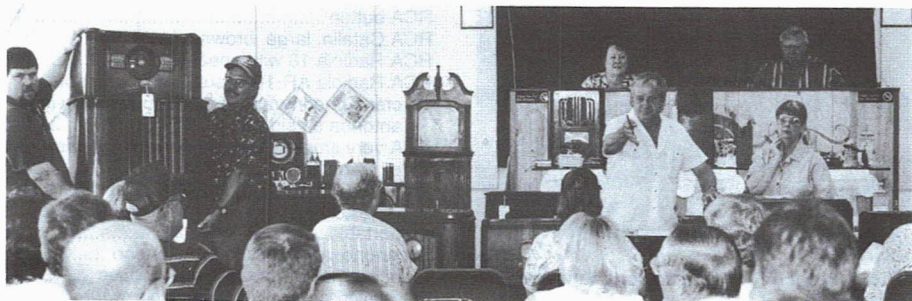
Preview was available on Friday afternoon and Saturday morning. Since ads had suggested reserving seats early, I did so by phone a week ahead. It was a wise move as the auction hall was a converted storefront with very limited space and seating.

Main Street Auction had prepared an 11-page catalog of 550 lots but with minimal descriptions.

Still, this was a great help. Because of the crowded conditions, it was difficult to inspect the innards or backs of many of the items closely. There were few battery sets, but many consoles, 1930s to 1960s wood and plastic table radios, and transistor radios, along with parts, tubes and test equipment. If novelty transistor radios are your interest, this was the place to be, as there were 89 lots of novelty radios totalling about 130 sets. Most radios were in "as found" condition, although some were refinished and some had been restored.

After starting at noon, Auctioneer J.L. Wells kept up a brisk pace of about 100 lots an hour and disposed of nearly all items by 5:30 P.M. Prices seemed moderate but better quality or rare items

(Continued on following page.)



Auctioneer J.L. Wells shown accepting bids on a Zenith big black dial console.

(Robert J. Lee Auction, continued)

always command good prices. Highlights were a Philco grandfather clock radio selling for \$550, a WKAM novelty plastic microphone radio for \$225, an ornate RCA bar radio (no glassware) for \$450, an Atwater Kent 4910 breadboard in scruffy condition for \$1,500, and a DeForest D10 in very poor condition for \$275.

As in most auctions, about halfway through, the crowd began to thin out, and towards the end, there were some good values to be had. For example: 40 small transistor radios sold in 9 lots for a total of \$62.50 or a little more than \$1.50 each; 30 plastic clock radios sold in 24 lots for \$261 or an average of \$8.70 each; 26 average wood table radios for \$282.50 or slightly less than \$11 each; 113 run-of-the-mill plastic radios in 81 lots for \$975.50 or an average of \$8.63 each; 16 box lots of tubes (mostly octals, miniatures and other common types, perhaps some big pins mixed in) for \$285 or an average of slightly less than \$18 per lot; 8 radio magazines (1922-1927) sold singly for \$100 total or about \$12.50 each.

The listing below does not include many unidentified and low priced consoles, cathedrals, tombstones, box lots, and other radios. Novelty radios are included in a separate listing.

The 10 percent buyer's premium is not included in the prices included here. All prices are rounded down to the dollar.

e=excellent, vg=very good, g=good, f=fair, p=poor, unk=unknown, NT=no tubes, WT=with tubes

- Airline 15 slant-front battery set, NT, f..... \$20
- Atwater Kent 4910 breadboard, w/tags, f+ 1,500
- Bike radio, (2) 5
- Bottle tube radio, partial label..... 70
- Bugs Bunny portable phonograph..... 5
- Clarion early console, lowboy, 3 knobs, g..... 80



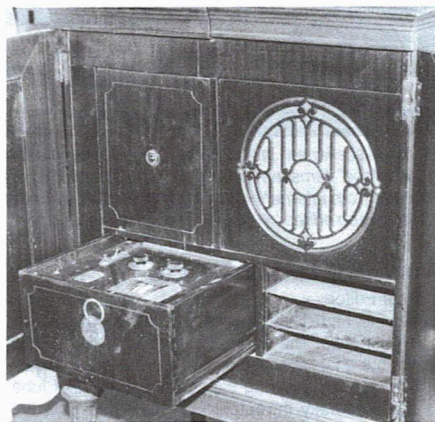
This unusual RCA bar radio console won a high bid of \$450.

- Columbia small suitcase portable phono, g ... 60
- Cookie jar in shape of radio, crude 15
- Crosley console, 10-tube, big dial , g 200
- Crosley clock/radio, brown "dashboard," g 60
- Crosley cathedral, 4 knobs, f..... 105
- Crosley console, small, 4 knobs, no speaker 125
- Crosley tombstone, 4 knobs , push buttons, g..... 150
- Crosley tombstone, 4 knobs, g 175
- DeForest D-10, w/crystal, no loop, WT, p 275
- Emerson 539 table, g 20
- Emerson 888 Vanguard transistor radio, in box ... 45
- Emerson console, small, Deco, w/chrome accents, 4 knobs, g 150
- Emerson table, green plastic, 50s 35
- Fada 845 brown "bullet," not Catalin, g 205
- Fada Catalin "bullet," butterscotch, red ring and knobs, repair on front 350
- Farm cathedral, WT, vg 150
- Freshman Masterpiece table, wood, 4 knobs, push buttons, 30s 7
- GE Mickey Mouse clock/radio, 50s 55
- Gem plastic car radios, (2) 40
- Grundig 1088 multiband table, f 35
- Guild Country Belle wall phone, (2), g..... 25, 40
- Guild Spice Chest tube radio, 3 knobs 40
- Guild Towne Crier, g 40
- Guild transistor radio, wall phone 10
- Horse radio, metal on wood base for desk top, manufacturer unk, g 65
- James K. Polk Playboy crank portable phono 20
- Jewel Trixie snakeskin small portable, vg 180
- Lunch box, shaped like a radio, nice 5
- Mantola table, wood, '30s, 4 knobs, g 40
- Mickey Mouse portable phono, 45 rpm (?) 22
- Minnette tombstone, repainted, f 160
- Mitchell Lullaby brown bedstead radio, g 20
- Motorola 51X17 small fabric table 20
- Nipper and Baby Needle tin, still sealed 12
- Nipper cast iron bank, "His Masters Voice" 27
- Nipper chalk bank, about 12", (3), g... 20, 30, 40
- Nipper salt and pepper 35
- Nipper solid statue, about 12", g 45
- Philco 70 grandfather clock/radio, g 550
- Philco "Bing Crosby" radio/phono 22
- Philco Predicta-style clock/radio, vg 50
- Phono stylus head, in original Nipper box 30
- Porto Baradio, w/glassware, vg 150
- Radio Orphan Annie decoder badge, 1935 40
- Radio Orphan Annie decoder badge, 1936 30
- Radio Orphan Annie decoder badge, 1937 32
- Radio Orphan Annie decoder badge, 1938 30
- Radio Orphan Annie decoder badge, 1939, ... 35
- RCA 45 rpm phono, plastic case, lid, (2).. 30, 35
- RCA bar radio, ornate, very clean , e 450
- RCA button 10
- RCA Catalin, large, brown w/swirl, vg 850
- RCA Radiola 18 with speaker 115
- RCA Radiola AR-1017 superhet in console w/ crank phonograph, amplifier, swinging loop antenna on side, f 135
- RCA very small snakeskin portable, w/case ... 25
- Rider manuals, 9 vols, #7 and up, f..... 60
- Seminole transistor radio, w/magnetic case... 15
- Shirasuna Denki Plaskon subminiature tube portable 25
- Silvertone victrola-style table phono 150
- Trancel small transistor radio, w/case 10
- Transamerican small transistor radio, w/box, g 15

Tube(s): eye, (6).....	22
TV digital clock, nice	12
V-M Tri-O-Speed portable plastic phono.....	10
Wall telephone transistor radio.....	35
Windsor microphone radio	17
WKAM plastic microphone radio, vg	225
Zenith console, black dial, Deco, 40s, vg	250
Zenith tombstone, blackdial, 4 knobs, vg	105
Zenith Royal 400 transistor radio, no case, f..	17
Zenith Royal 500, black, w/case, very clean ..	45
Zenith royal 500 transistor radio, no case	15

Novelty Radios

Air Force F-125	\$20
Ballantine bottle	35
Barbie	25
Bi-plane, desk type	100
Black race car	5
Blueflight, GE	5
Boat	45
Booze bottle, leather-covered	7
Burger	5
Cabbage Patch	5
Cannon	10
Car novelty	5
Classic car, 1931, with box	7
Coke bottle w/box	12
Coke bottle, no box	5
Columbia space shuttle	10
Cookie Monster clock/radio	12
Coors can	5
Crosley TV clock	17
Diet Coke can	10
Donald Duck	30
Dr. Pepper Mavericks' basketball, w/box	12
Ernie clock/radio	17
Ernie in-the-tub	45
Flying saucer	20
Golf bag	25
Holly Hobbie	5
Jimmy Carter peanut	30
Jones Blair paint bucket, (2)	7, 7
Knight	5
Locomotive	30
Male chauvinist pig	25
Masters of the Universe	5
Michael Jackson AM/FM, in box	20
Mickey and Minnie	20
Mickey radio, in box	20
Mobil 1 oil can	7
Money radio	5

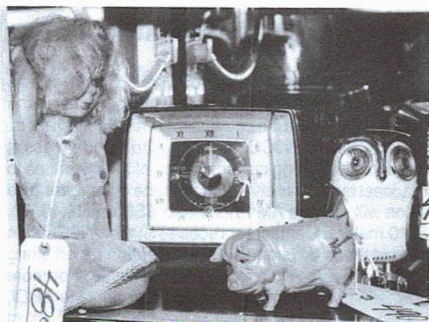


This RCA console with Radiola AR-1017 superhet in pull-out drawer included a crank-type phonograph, amplifier, and compartment with loop antenna sold for \$135.

Money talks	5
Mork from Ork Eggship	20
Movie promo TV set novelty	15
Naked girl, about 12" tall, vg	50
Old car, (2)	10, 25
Oscar the Grouch garbage can	12
Owl	40
Panda bear	5
Pepsi bottle	5
Planters Mr. Peanut	17
Planters peanut man	10
Polaroid film	10
Pound Puppy	5
Punchy (Hawaiian Punch)	10
Raccoon radio, in box	15
Radio Gobot	25
Red race car	12
Robot	85
Robot clock/radio	100
Rolls Royce, in box	7
Samsonite, small, nice	5
Santa Maria ship	25
Sesame Street, (2)	10, 20
Sesame Street Bert and Ernie	10
Sinclair gas pump	12
Small cathedral	10
Small globe	20
Sony cylinder	5
Spice box radio	5
Stuffed tiger	10
Telephone radio, (2)	5, 15
Texas Rangers Gatorade baseball	5
Transformer	15
Tropicana Orange Juice	10
Victrola	50
Windmill	30
Windsor microphone radio	12
Wrinkles	5

(Ray Chase, 1350 Marlborough Ave, Plainfield, NJ 07060)

(Main Street Auction, 120 East Main St., Mesquite, TX 75149. (972) 329-6900)



A few of the unique transistor novelty radios shown displayed around a 1950s clock/radio.



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.

Warning to Restorers

Dear Editor:

I recently had a fairly harrowing experience while restoring an old radio. The offender happened to be a 1930s Zenith, but what I describe could happen with any radio.

Because the coupling capacitor to the output tube had become leaky, the output tube drew a heavy current for a long time and caused the output transformer to overheat, making the transformer's insulation burn. As a result, the full power supply voltage (about 300 volts, backed by 16 μF) appeared on the speaker frame.

I moved the radio after repairing it, and picked up the speaker while touching the chassis — the thing almost killed me! The same problem could happen in the field coil too. The external appearance of the transformer was fine; only disassembly showed the burned portion.

All should be aware of this potentially lethal problem.
John Grady, Littleton, MA

Suggestion: work with one hand behind your back. (Editor)

The Net — For and Against

Dear Editor:

Regarding putting A.R.C. on the internet, I'd like to add my opinion. In fairness to current subscribers, but also to get the increased coverage available through the net, I would suggest that the entire A.R.C. be placed on the net one week after a First Class mailed copy is received in your office. This would protect your subscribers' priority while opening the ads to those using the net.

Charles Combs, Albany, MO

Dear Editor:

I agree — Keep it off the internet! I deliberately have no computer!

Robert Wheaton, San Antonio, TX

Dear Editor:

Have you ever given a thought to putting your database of classifieds on line for subscribers to browse? It can get to be a long, drawn-out ordeal to scan a number of issues looking for a specific item.

Donald J. Koetch, Lakewood, NJ

We are still giving many a "thought" to this issue including making the ads available on the Internet to subscribers only. (Editor)

'60s Consoles, Anyone?

Dear Editor:

I've been a radio collector for about 16 years. Until about the time I became an A.R.C. subscriber, I bought most of my best pieces at yard sales, including a Grebe CR-9 and a Westinghouse RC, an Emerson BM-258, and a couple of early postwar TVs.

For every good find though, I am continually amazed at how people will point out such things as a '60s stereo console blaring away nearby when I ask about "old" radios.

Ted Hutson, tedhutson@yahoo.com

A.R.C. Costs Covered by Insurance?

Dear Editor:

I read with interest the letter in the July 1998 issue from Stanley Bennett in which he describes how his doctor prescribed a new hobby, and he found antique radio collecting and A.R.C. He failed, however, to discuss one important point. If I get my doctor to write a similar "prescription," will my medical insurance cover a subscription to A.R.C.?

Frank Bequaert, Fitzwilliam, NH

We think it's worth a try. Let us know if you have any luck, and we'll spread the word.

New Nipper Windows in Camden

Thanks to Frank Krantz, we have received a clipping from the South Jersey *Courier-Post* (June 6, 1998) updating us on the progress of the preservation of the historic RCA Nipper Building #17 in Camden, N. J. (see A.R.C., April 1998). The article describes the installation of the new versions of the four stained-glass Nipper windows atop the building — a New Jersey landmark. The original windows, installed in 1916 and replaced in 1969 with windows having RCA's new logo, were donated to historical institutions, such as the Smithsonian.

Then in 1979, copies of the original windows replaced the replacements! Since the building was vacated five years ago, vandals, thieves, and the elements have taken their toll. Now that the building is being preserved by the Camden Redevelopment Agency, Nipper rises again, as we have said many times before.

The new Nipper windows were designed by stained-glass artist John Beirs, who modeled them on the original Barraud painting. Unlike the previous copies, they will contain the words, "His Master's Voice." Each window, about 15 feet in diameter and in 9 sections, will be hoisted to the top of the 11-story tower and soldered or welded into place. The newspaper color photos make this preservation project a sight to see when in the Camden area.

Vintage Radio Station at Radiofest

Dear Editor:

For the first time, the Antique Radio Club of Illinois (ARCI) will have a vintage amateur station transmitting at Radiofest XVII on the Holiday Inn, Elgin, Illinois, August 5-8, 1998. N9CQX will be our host and will assist individuals who bring current copies of their licenses to broadcast over a variety of vintage tube equipment. The station will operate AM Phone and SSB on 80, 40, 20, 15, 10 meters. Contact (or receive) Station N9CQX on either of these days and send a reception report along with a LSASE to ARCI for a QSL certificate. For more information, visit our web site at arci.com; write to ARCI, P.O. Box 1139, LaGrange, IL 60526; or call Art Bilski at (630) 739-1060.

Harold Blesy, Hinsdale, IL

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, I and l (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 3; 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 AUG. 10th
Noon Eastern Time**