

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

Winter 1998

Volume 4 Issue 2



## MEETING/ ACTIVITY NOTES

Reported by Marsha Simkin  
and Marv Beeferman

Mild weather rewarded January's meeting with another enthusiastic turnout. Reservations have been brisk for our February 21st swapmeet (let's hope they continue that way) so please make your decision early. A planned reconnaissance trip by Marv Beeferman and Phil Vourtsis to the Freehold Armory may result in a limitation on indoor spaces to avoid the crowding experienced during the last meet. Unless we get permission (not as yet confirmed) to set up outside, you may be disappointed if you wait for the last minute. The only conflicting events appear to be the Estes vintage radio auction in Ohio and the Greater Boston Antique Radio Collectors "Radio XXIX" meet on the 22nd. The Ohio auction may be too far for most (especially in February) but the Massachusetts meet may be to our advantage with collectors attempting to make it a marathon weekend.

With regard to swapmeet reservations, the club voted that refunds will not be honored for any reason unless swapmeet organizers are notified of a cancellation no later than a week prior to the meet.

## CALL FOR 1998 DUES

Yes, it's dues time again and if your mailing label indicates "1/98" its time to renew your membership. Our new membership chairperson, Marsha Simkin, reports that a spiffy new database will be available at February's meeting so you can check your entry and correct discrepancies, especially area code changes. If you can't make the meeting, please keep Marsha informed of any changes with your \$15 payment (\$20 for family membership). Send your check to:

Marsha Simkin  
10 Avalon Lane  
Matawan, NJ 07747

Membership cards will be mailed with the *Broadcaster* after notification of dues receipt.

John Dilks discussed the possibility of ordering cloisonne pins with the club logo from the Crestline company. With a die charge of \$125, pins run from \$2.50 to \$5.50 depending on style and quantity. We might want to consider individual purchases or a club purchase to be used as recognition awards, years of membership awards, etc. Congratulations to John for being elected to the Board of Directors of the Antique Wireless Association (AWA). Contact John or Marv Beeferman for a membership application if you are interested in joining.

Orders are currently being taken by Ruth Whartenby for club sweat shirts - in black with the club logo in gold. Prices are \$13 for S, M, L and XL, \$15 for XXL and \$18 for XXXL. Lud Sibley is also offering *Zenith Radio -The Early Years (1919-1935)* for \$24 (normally \$32 by mail).

Jim Whartenby exhibited two rare and historical pieces...a test standard for the altimeter for the Lunar Excursion Module (LEM) and a World War II "CRT1" hydrophone which was dropped from allied airplanes to transmit the location of enemy submarines. Jim explained that the test standard was essentially the first working unit and was the gauge by which

## MEETING NOTICE

The next meeting of the NJARC will take place on Friday, February 13 at 7:30 PM in the Grace Lutheran Church, corner of Route 33 and Main Street in Freehold. Contact Marv Beeferman at 609-693-9430 or Jim Whartenby at 732-271-7701 for directions. This is a convenient time to place your reservation for our upcoming swapmeet on February 21st and also pay 1998 dues. John Dilks will present a layman's talk on his 1920 vintage spark transmitter; members are encouraged to bring in examples of the era in the form of equipment or documentation to supplement what promises to be an exciting presentation. Although not guaranteed, John suggests that some sparks may fly if all can be arranged in time.

all other LEM altimeters were measured. It was made at RCA Harrison in the mid 1960s and amplified and multiplied a 100MHz signal by 96 to produce an X-band signal at 9.6GHz. The altimeter bounced this signal off the surface of the moon to determine the LEM altitude. Essentially similar modules were used for the LEM to Apollo docking and some other functions but Jim wasn't sure what they were. Jim said that he was fortunate to work with the individual in charge of production of the various amplifier-multiplier assemblies when he worked at RCA Labs. Later, he worked with an individual who had salvaged them from the Harrison plant when it closed and Jim considers the module the single most important item in his collection. More information is promised for the CRT1 hydrophone at the February meeting.

Tom Provost gave a talk on his experiments with a nickel plating kit obtained from Antique Electronic Supply in Tempe, AZ. The kit (also available for plating copper, brass, silver and gold) contains an applicator brush, a jar of plating gel and instructions. With Mark Mittleman supplying candidates for restoration, here is a summary of Tom's results and some member comments:

- Clip leads and a 3 - 4.5 volt battery pack supply power to the process. Tom found that 4V @ 100 mA worked well.

**THE JERSEY BROADCASTER,**

published a minimum of ten times each year, is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines with special emphasis on contributions made by the state of New Jersey. Dues are \$15 per year and meetings are held the second Friday of each month at the Grace Lutheran Church, corner of Route 33 and Main Street in Freehold N.J.

Submissions are welcome in typewritten or diskette (5-1/4" or 3-1/2") form with formats in ASCII, WordPerfect, Word, etc. Photos in high contrast black and white are appreciated but color photos are acceptable. The Editor or NJARC is not liable for any buying and selling transactions or for any other use of the contents of this publication.

**OFFICERS, BOARD OF DIRECTORS AND PROGRAM COORDINATORS****PRESIDENT:**

James Whartenby  
120 W. Franklin St.  
Bound Brook, N.J. 08805  
(732)-271-7701

**VICE PRESIDENT/TUBE PROGRAM:**

Ludwell Sibley  
44 E. Main St.  
Flemington, N.J. 08822  
(908)-782-4894

**SECRETARY/EDITOR:**

Marv Beeferman  
2265 Emerald Park Drive  
Forked River, N.J. 08731  
(609)-693-9430

**TREASURER:**

Gerald Dowgin, KB2E2E  
1481 Newark Ave.  
Whiting, N.J. 08759  
(732)-350-6259

**SARGEANT-AT-ARMS:**

Donald Cruse  
10 Bernard St.  
Eatontown, N.J. 07724  
(732)-542-2848

**TRUSTEES:**

Mark Mittlemen (908)-431-1324  
Phil Vourtsis (908)-446-2427  
Tony Flanagan (908)-462-6638

**TECHNICAL COORDINATOR:**

Tom Provost  
19 Ivanhoe Dr.  
Robbinsville, N.J. 08691  
(609)-259-7634

**SCHEMATIC PROGRAM:**

Aaron Hunter  
23 Lenape Trail  
Southampton, N.J. 08088  
(609)-267-3065

**CAPACITOR PROGRAM:**

John Ruccolo  
335 Butcher Rd.  
Hightstown, N.J. 08520  
(609)-426-4568

**WEB COORDINATOR**

John Dilks, K2TQN  
(609)-927-3873  
<http://www.eht.com/oldradio>

- Careful surface preparation is a must! Old nickel plating must be completely removed via an acid bath. Tom got good results using wet/dry abrasive paper (starting at 600 and ending with 220) followed by 4/0 steel wool and Brasso or Noxon.
- Dishwashing detergent and degreasing with ethyl alcohol removes contaminants...avoid fingerprints or they will be permanently preserved in nickel.
- The first coat will be thin and needs to be built up with several applications. Use a paper towel to polish between coats; too much abrasion will remove the nickel plating.
- Leaving the gel on too long might produce shadows. A suggestion was made that monitoring current with an ammeter and observing when the current starts to drop is indication that new gel is needed.
- Eric L. Reiss's *The Compleat Talking Machine* has a section on nickel plating.

Tom noted that it is fairly easy to do a decent job, technique will improve with practice and experimentation and no fumes or skin irritation was experienced. Tom also showed the before-and-after results of a Zenith Transoceanic leatherette restoration using Clorox 2, Kiwi leather dye and Kiwi black paste shoe polish. A suggestion was made that placing a radio in a plastic bag with Kitty Litter (in a pie plate) will permanently remove residual mildew odor. (So as not to offend any of our animal lover friends, I won't mention what was also suggested to be placed in the bag to expedite the agitation process...Ed)

Our "oldest radio-related stock certificate" scavenger hunt contest was won by Ray Chase with a 1908 certificate from the Radio Telephone Company. Runners up were Jerry Simkin's 1910 North American Wireless Corp. entry and Marv Beeferman's 1918 Marconi Wireless Telegraph certificate. To allow more time for searching, our next category won't be due until the March meeting: **Discrete radio component (capacitor, resistor, coil, etc....but no tubes) with oldest patent date marked on it.** Good luck!

**THE PRESIDENT'S COLUMN****ANNIVERSARIES****By Jim Whartenby**

The fiftieth anniversary has gone unnoticed by most of us. Has it so changed the world that every one takes it for granted? What would it be like if it went undiscovered? Would our daily lives really be any different then that of our parents? Probably not, but it would be less convenient and truly less instant. It has deeply penetrated the fabric of our lives and we depend upon it for almost everything. In fact, it is hard to find anything that hasn't benefited from it's existence. No, I am not talking about duct tape, I'm talking about the transistor.

The transistor has just two inventors, although, like all inventions, it was built on the work of others. Julius Lilienfeld, a Canadian, patented a crude point contact field effect transistor in 1925 but due to randomly structured (natural) crystals, he could not get it to work well. By the mid 40's, high purity semiconductor crystals were perfected and the stage was set by researchers like William Baker, William Yager, R.S. Ohl, Jack Scaff and others who each in turn added to the knowledge of crystal semiconductors.

This marvel was discovered on December 16, 1947. One week later, it was demonstrated before a group of respected scientists and engineers and of course, managers and directors who oddly enough named it then and there. The transistor remained a Bell Telephone Company secret until mid 1948 when inventors John Bardeen and Walter Brattain filed a patent. After demonstrations to both the technical staff at Murry Hill and to representatives of the military, it was made public on July 30, 1948.

As I write this, I hear the snicker-snicker of fellow hollow-staters who remain more loyal to the vacuum tube than I. And that is OK. The tube has a quaintness about it, a real touchy-feely quality. (Continued on page 5)

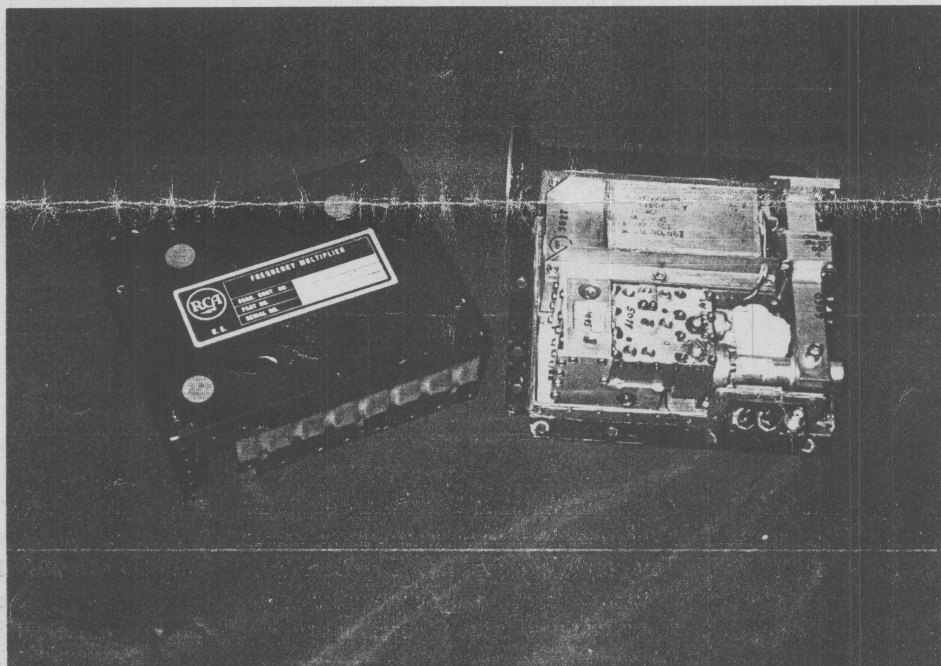




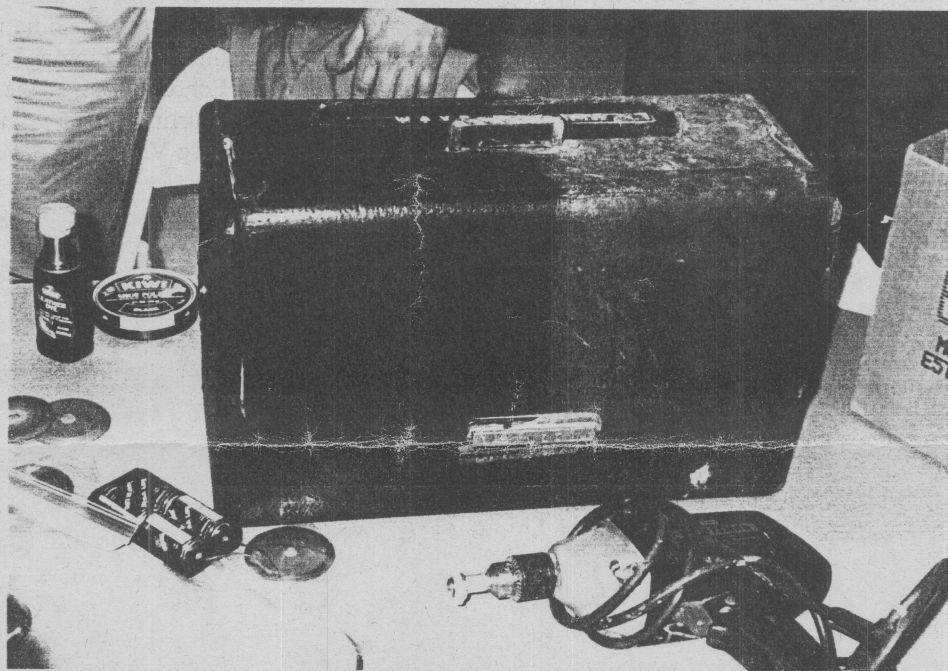
**TOP: JIM WHARTENBY'S CRT1 HYDRPHONE**



**RIGHT: TOM PROVOST DISCUSSES NICKEL-PLATING AND TRANSOCEANIC CASE RESTORATION; AN INTERESTED LUDWEL SIBLEY LOOKS ON**



**JIM WHARTENBY'S LEM ALTIMETER TEST STANDARD**



BEFORE-AND-AFTER TRANSOCEANIC CASE RESTORATION A LA TOM PROVOST



## New Jersey Antique Radio Club Antique Radio Swap Meet

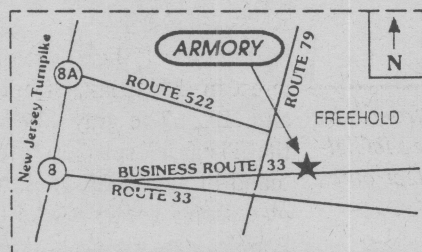
Saturday, February 21, 8:00 AM - 1:00 PM\*

**New Location: National Guard Armory, Freehold N.J.**



NJARC presents its Winter all-indoor swapmeet in a spacious, new location with vendors displaying a spectrum of collectible old-time radios, military and civilian communication equipment, audio equipment, phonographs, and associated parts and literature. Convenient, ground level access for vendors; snacks are available. Everyone is welcome! **Reservations are required to guarantee a space. NOTE: Tables will not be provided; floor space is ample and clean.**

**DIRECTIONS:** **From the North:** N.J. Turnpike Exit 8A to Route 522 East; in Freehold, take Route 79 South for about 1 mile to BUSINESS ROUTE 33 (Park Ave.) East – The Armory is about a block East of Route 79 on BUSINESS ROUTE 33. **From the South:** N.J. Turnpike Exit 8 to Route 33 East for about 10 miles; continue on BUSINESS ROUTE 33 (Park Ave.) through Freehold – The Armory is about a block East of Route 79 on BUSINESS ROUTE 33.



### RATES:

NJARC members \$15/space; non-members \$20/space.

### CONTACTS / RESERVATIONS:

Marv Beeferman, 2265 Emerald Park Drive, Forked River, NJ 08731 (609-693-9430). James Whartenby, 120 W. Franklin St., Bound Brook, NJ 08805 (732-271-7701)

\*Vendors set up at 7:00; no early admittance!



*(Anniversaries...continued)*

Compared to the transistor, it has heft, it gives off light and heat and if you don't watch out, it can and will bite you. But a transistor, ha! It's completely encased, it can get lost on a moderately messy workbench and, unlike the venerable tube, if stressed, it is very unforgiving.

But look how fast it was developed and brought to market as compared to the vacuum tube. The Edison Effect was noted in 1883 and DeForest added the grid in 1907. It was almost another 20 years before radios were in the home in any kind of numbers. True, several industries had to be developed in those 40 years which was no trivial task. But 40 years is the better part of a lifetime. Scores of then famous but now forgotten men made their mark in the development of these industries. Who remembers the discoverer of cathode self bias, the most common method used to control plate current?

The transistor went from invention to product in less than five years (1952). But, it was not in radios. The Regency Division of the Industrial Development Engineer Associates (IDEA) would make the TR1 two years later in 1954. The first product using transistors was the hearing aid. It used devices manufactured by Raytheon, then a manufacturer of sub-miniature vacuum tubes. Raytheon, became the leading manufacturer of transistors, supplying the world with half of all transistors made up to 1955.

It is interesting to note that the name most associated with the transistor is not on the first patent. William Shockley was the program director for whom Walter Brattain and John Bardeen worked. He left BTL about four years after the invention of the point contact transistor, some say because he was not mentioned on the patent. Shockley was the sole inventor of the junction transistor for which a patent was filed in July, 1948 only six months after the discovery of the point contact transistor. The junction device is the perfected version of the bipolar transistor and made the point contact obsolete. It was first reduced to practice in 1951, the year Shockley left BTL. Was this another coincidence? And you thought that there were troubles with DeForest, Armstrong and Sarnoff!

Brattain, Bardeen and Shockley won the Nobel Prize in physics (1956) for the

transistor. Also interesting to note is that John Bardeen is the only person to have won two Nobel prizes in the same field, physics; the second was for work in superconductors (1972).

One final comment. The hot bed of early transistor development was here on the east coast. From the area around New Jersey, the birth place of the transistor, up through New England where early development continued, much of the foundations in semiconductors were laid. Companies already mentioned were AT&T's Bell Telephone Laboratories and Raytheon but there is also:

- Amperex Electronics Corporation in Hicksville, NY
- CBS-Hytron in Danvers, Mass
- Germanium Products Corporation in Jersey City, NJ
- General Electric Co. in Syracuse, NY
- General Transistor Corp. in Jamaica, NY
- National Union Electric in Orange, NJ
- Philco Corp. in Philadelphia, PA
- RCA in Harrison, NJ
- Sylvania Electric in NY, NY
- Transistor Products in Waltham, Mass
- Transiron Electronics Corp in Melrose, Mass
- Tung-Sol Electric in Newark, NJ
- Western Electric in NY, NY
- Westinghouse in Elmira, NY.

I imagine that this list is incomplete, can anyone else add a name or two? Finally, did you know that a small company named Geophysical Services Inc. moved from New Jersey to Texas and renamed itself Texas Instruments in 1951?

### Where Has All the Good Stuff Gone?

*The following is a continuation from January's "Broadcaster" of a Gary McClellan article that appeared in "Electronics Now," October 1966...Ed.*

As stated in last month's installment, vintage audio equipment especially "hot"

in Asia includes jukeboxes, amplifiers, preamplifiers, tuners and speakers, all which command impressive prices (not to mention shipping charges and duties). For example, prize jukeboxes like the Wurlitzer 1015 from 1946 and the Seeburg V200 from the 1950s, once restored, may fetch \$15,000 to \$20,000 and \$6000 to \$8000 respectively.

### AUDIO

When supplies of McIntosh MC-275 amplifiers dried up, Asian buyers shifted their attention to other models like the MC-240 and MC-225. Today, a clean MC-240 brings \$1500 to \$2000 while the MC-225 is worth \$600 to \$1,000. Another desirable amplifier is the Marantz 8B; good ones fetch \$2000 or more. Incidentally, McIntosh products are in heavy demand because they are well made, sound good and look impressive. Preamplifiers in demand include the Marantz Model 7 and the McIntosh C-22. Both units were top-of-the-line products during the mid-1960s and mint examples go for \$2000 to \$2500.

Since McIntosh and Marantz amplifiers and preamps are now scarce, buyers have turned their attention to still-plentiful Fisher Radio products. The Fisher 400C, 500C and 800C stereo receivers from the mid-1960s are especially sought after. They sell for \$100 to \$175, depending on condition.

By far the most desirable tuner is the Marantz 10B FM tuner. This "monster" sports 26 tubes and an oscilloscope for easier tuning. Although it originally sold for \$700 in 1965, a unit in mint condition goes for \$3000 today. Another FM tuner in high demand is the McIntosh MR-78. Although solid-state, nice ones go for \$500 to \$800; its only a matter of time before all vacuum-tube equipment is snatched up and quality solid-state units get big tickets.

### SPEAKERS

In general, there is strong overseas interest in any speaker from Altec-Lansing and JBL. The gray Altec A-7 "Voice of the Theater" speakers are in heavy demand in Japan, followed by raw (i.e., replacement) speakers like the model 604. Popular raw speakers from JBL include the LE8T 8-inch woofer. Speaker prices fluctuate constantly, and there is a definite

"we'll pay whatever it takes to get it" buyer's mentality.

## COMMUNICATIONS GEAR

There is some interest in 1950s vintage Collins, Hammarlund and Hallicrafters equipment. The Collins 75A4 receiver is popular, followed by the matching transmitter and linear amplifier. Prices for 75A4s in good condition start at \$500. Like the 754A, the Hammarlund SP-600 receiver was popular with military and commercial users during the late 1950s. Clean examples go for \$400 and up. Hallicrafters turned out vast quantities of low-priced equipment like the S38 and SX100 series receiver which go for \$50 or more. Expect low priced communications gear to escalate with time; these receivers are becoming more popular with end users who are not wealthy but want a piece of Americana.

## PARTS

Although interest is higher in vintage equipment, there is a strong market for certain electronic parts. Overseas buyers want new old stock (NOS) tubes, capacitors, and audio output transformers. Ironically, tubes imported into the United States are in far greater demand than domestic tubes. On the other hand, US made capacitors and output transformers are highly prized.

Desirable NOS tubes include the Western Electric 300B, Genelex KT66, Genelex KT88, Mullard EL34, and Telefunken 12AX7. Originally introduced in the early 1930s for use in theater sound equipment, the 300B now may start at \$550 apiece. The Genelex and Mullard tubes were imported from Great Britain. They are arguably the finest audio-output tubes available, and their sale prices reflect it. NOS KT88s sell for \$125-\$300, KT66s for \$70-\$150 and EL34s for \$30-\$65 each. The Telefunken 12AX7s were imported from West Germany, and new ones sell for \$25 and up when available. Like the Genelex tubes, they are considered among the world's finest.

NOS vacuum tubes in demand from domestic suppliers include the Tung-Sol 5881, Tung-Sol 6550, and any brand of 7591. Tung-Sol developed the 5881 and 6550 tubes in the early-to-mid 1950s. Many people think they were the best tubes of their kind, and they were once very common. Today, these tubes are scarce and

their prices reflect it. New 6550s sell for \$45-\$80, and 5881s go for \$10-\$25. The 7591 was made originally by Westinghouse and it was widely used in Fisher receivers. Today, most tube sellers consider the 7591 extinct and price it accordingly at \$30-\$100.

Desirable capacitors include electrolytic capacitors of recent manufacture and Sprague *Vitamin Q* pigtail tubulars. The Mallory Company offers a line of twist-lock, high-voltage electrolytic "cans" for replacement purposes. Unfortunately, the cost of these capacitors have more than doubled in recent years so there is renewed interest in equivalent electrolytic types made within the last five years. Desirable values include 4 x 20 uF at 450 volts and 40/20/20/20 uF at 500 volts. Sprague Vitamin Q paper-oil capacitors were widely used in 1950s and 1960s military equipment. Some people claim those capacitors make their equipment sound better and that hype has raised prices to the \$2 to \$22 range. (*One proposed theory is that Sprague used a low-fat oil that did not clog insulation walls, giving electrons an unimpeded path...Ed.*) Desirable values include 0.047 uF, 0.1 uF and 0.22 uF at 600 volts.

As far as output transformers are concerned, Peerless and Acrosound are the leaders. Typical part numbers sought out by overseas buyers include the Peerless S248Q and Acrosound TO-330. Both transformers were widely used in top-quality 20-watt amplifiers back in the 1950s and typically sold from \$2 to \$5. Today, prices range from \$75 to \$150 depending upon appearance.

## TIPS FOR SELLERS

The keys to success in selling vintage equipment are that the equipment is in demand, you know the current sale prices and that you have access to potential buyers.

Typical resources for determining the hottest equipment in demand include classified advertisements, classic audio equipment catalogs and reference books such as the *HiFi Spotter's Guide* by Charles Kittleson. Determining the sale prices of equipment can be tricky; most sellers lose out because they guess on prices. In general, the right price depends upon the condition of the equipment and what the local market is willing to pay for it. Some sell-

ers sell for a multiple of catalog price while others "shop" local exporters and flea-market sellers in order to determine the local asking price. Finally, reaching potential buyers is merely a matter of making your presence known. With a dwindling supply of vintage equipment, most people will come to you. You can advertise in a local paper, respond to an exporter's advertisements or sell at flea markets (where some buyers expect big discounts). But by arranging a private sale with friends, many of the hassles resulting from these methods may be

## CLEANING AND NICKEL-PLATING SMALL PARTS

Edited by Marv Beeferman

*As promised, here's a follow-up to Tom Provost's nickel-plating talk at January's meeting. The method (for both cleaning and plating) is described by radio historian Alan Douglas in the February 1984 issue of "Radio Age." Since I have not researched it, the source for supplies that Alan mentions may no longer be in business, but I'm sure there is still availability. Alan must be happy with the results since he tells me that he still keeps the same electroplating solutions at-the-ready should the need arise.*

*As with anything else in our hobby, both techniques and opinions abound. One well-known Atwater-Kent collector, describing a method using mini-plating pens, remarked on the tank-plating process (probably a misnomer, since most hobbyists use glass jars or Pyrex beakers) as follows:*

*"For a restorer, there is no technical reason why repairs cannot be made using the tank-plating process. However, there are many practical reasons why tank-plating is not the method of choice for the average collector. The mess of the tanks and the solutions, the difficulty of getting very small quantities of the needed materials and the disciplines of bath concentration, temperature and time make the whole effort uninteresting to all but the far-out perfectionists."*

*What's your opinion? Read on...Ed.*



In the course of radio restoration work, one of the most common jobs is cleaning nickel-plated parts. I've developed a standard technique for this, which is just as convenient for one small part as for a whole radio-full. It requires some equipment and supplies not found in the ordinary shop, but once you have them, you can begin work at a moment's notice, without a lot of preparation, or cleanup afterward.

The first step is cleaning off dirt and corrosion. Detergent and water is of course the safest thing to try, though it won't have much effect. For small parts such as screw heads or nuts, scrubbing with a wire "toothbrush" will often work (Brookstone sells them) but it may scratch the plating. These brushes can be made gentler by holding their bristles against a buffing wheel charged with tripolit, to round them off slightly. Incidentally, you'll find that these are very handy to have around, and it's worth buying six or a dozen, earmarking some for rough work and some for fine. Keep the corroded parts wet as you brush them, to avoid raising dust which is poisonous to breathe.

Generally, I use an ultrasonic cleaner for corroded nickel parts. Mine is a Heath—but after the troubles I've had, I wouldn't recommend it to anyone. Give the parts a few minutes in detergent solution first, in the ultrasonic cleaner, to remove oily dirt (try automatic dishwasher detergent, the stronger the better). Then, fill the cleaner with a solution of sodium bisulfate, a weak acid which dissolves the corrosion products and leaves clean metal. This is sold under the name Sparex by jewelry-supply houses (try Allcraft Tool & Supply Co., 100 Frank Rd., Hicksville, NY 11801). Some toilet-bowl cleaners contain sodium bisulfate and may work, though I've never tried them. It doesn't take much; a teaspoon per quart is plenty. Run the cleaner for five minutes, and if any corrosion remains, scrub it with a wire brush and put the part back in the cleaner for another five minutes. It can be a slow process, but adding more sodium bisulfate won't speed it up any. By the way, keep this stuff off your hands and clothes; it acts like weak sulfuric acid and causes dermatitis.

If the nickel plating was in good condition, it will now be clean, ready to be rinsed and dried. If you see bare brass areas,

though, you'll have to re-plate them. The ideal time to do it is right now, while the brass is chemically clean. I keep a tank of nickel-plating solution on my bench all the time, ready to go. You can buy ready-made solutions (from Allcraft) but I made my own: for one gallon, 14 oz. nickel sulfate; 2 oz. ammonium chloride, 2 oz. nickel chloride, 2 oz. boric acid. Pure nickel anodes are available from Allcraft (don't use anything else). I use my variable power supply; the voltage isn't important (3 volts is plenty) but you'll have to control the current. 50 mA is about right for a small binding post; too high a current will cause gassing and black plating. A few seconds in the solution will put on enough nickel to hide the bare brass, without changing the appearance of the intact nickel on the rest of the part. Rather than go to the trouble of stringing a lot of small parts together for the plating, I usually take each one from the ultrasonic cleaner at a time, rinse it, hold it with a clip-lead connected to the negative power-supply terminal (the anode goes to the positive) and dunk it in the plating solution for several seconds to half a minute. Another rinse, and dry, and you're done.

Rusty steel parts can be handled the same way, and nickel-plated too; the tuning handles on a Radiola III, for instance. Of course, if the rust is deep, you'll have to sand the metal down and buff it before plating, and that's a whole different technique. (A future "Broadcaster" article may cover this technique if there is enough interest...Ed).

Parts such as switch points can be replated without removing them from the radio panel, if you make an electrical connection to the negative power-supply terminal. Cover the part with a little plating solution (a single drop may be enough) and hold a bit of nickel anode above the part, just touching the solution surface. A couple of milliamps is plenty.

Cleaning nameplates is far trickier than ordinary plated parts, because the black background color on most plates will be removed by the cleaning agent. Sometimes you can get away with a quick cleaning with Sparex, not in the ultrasonic cleaner, but with a nylon-bristle toothbrush. But you'll be amazed at how quickly the black will come off, which is to say that once you notice it coming off,

it's too late. Another quirk worth pointing out, is that if you try to nickel-plate an old nameplate, you will plate right through the black background, whether or not it looks clean to you (it's Murphy's Law again: where you want it to plate, the slightest trace of dirt will prevent it, but where you don't, it will plate every time).

It is possible to re-blacken the background areas, by applying "Brass-Black" sold by Brookstone or Birchwood-Casey. It works on nickel as well as copper and brass. However, the raised lettering must be protected with lacquer or shellac, and you can probably guess how tedious a job that is, under a stereo microscope. All things considered, you may be better off just scraping the worst corrosion from the nameplate with your fingernail, and letting it go at that.

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*At February's meeting, I hope to have copies of articles describing other methods. If you can't attend, write me; for the moment, here are a few more tips (Ed.):*

1. Commercial electroplating solutions (if you can get small quantities) do the best job (acid base only for home use) since they contain additives not found in hobby solutions (organic brighteners, leveling agents and copper scavengers).
2. Typical working temperatures run about 125 degrees F. This is usually provided by a hot pot, hot plate or hot water bath. Plating bath temperature is not that critical as long as you are above the recommended temperature.
3. For larger pieces, power sources up to 4.5V at 1.5A may be required. Accurate current is critical to prevent blistering or rough nickel buildup on edges.
4. For larger parts, unless the item is suspended from two or more points, uneven plating will result.
5. Part rotation and solution agitation are important.
6. Know the original plating...some RCA tube socket shells are chrome over nickel plate; some Kennedy dials are silver plated; Aeriola Sr. and Jr. dials are silver plated.

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## CONNECTIONS

Free exposure for buyers and sellers! Unless requested otherwise, each ad will run for two months in both the *Jersey Broadcaster* and the *Delaware Valley Oscillator*. All buying and selling transactions are the responsibility of the parties involved.

## FOR SALE

Back issues of *Antique Radio Classified* - as a lot only. 154 issues from Volume 1, number 5 (Dec. 1984) to Volume 14, number 9 (Sept. 1997). Asking \$275 or best offer. Jim Whartenby, (732)-271-7701. (2/98)

Collection of glass telegraph-telephone insulators. Quality/historic stuff (no tchotchkes): Lynchburg, Gayner, 1880's Brookfield, a bunch of Surges, etc.; no Hemingray 42s! Four big boxes, modestly priced for the set. Can deliver to DVHRC or NJARC meetings. Ludwell Sibley, (908)-782-4894. (1/98)

Check out NJARC's capacitor program for those most commonly needed replacements. Contact John Ruccolo at any club meeting or call him at home (609)-426-4568 to find out what's available. All proceeds go to the club.

The ever-handly reference *Tube Lore* gives 186 pages of insightful scoop on about every North American tube there is. Reviewed by Eric Barbour in *Vacuum Tube Valley* as "an instant classic." The book is available from the following hip sources: (A) the DVHRC book program (B) DVHRC's A. G. Tannenbaum, 215-540-8055 (C) W7FG Vintage Manuals, 800-807-6146 (D) Antique Radio Classified, 508-371-0512 (E) Antique Electronic Supply, 602-820-5411 (F) Fair Radio Sales, 419-223-2156 (G) Angela Instruments, 301-725-8823 (H) Antique Radio Components, 916-878-1780 (I) Paul Washa, 612-472-3010, and (J) the Museum of Radio & Technology Bookstore (charleston, WV). Or...its available from Ludwell Sibley, 44 E. Main St., Flemington, NJ 08822 for \$19.95 post-paid in the U. S. and Canada, \$24.95 by air overseas. Clubs get a discount on multiple copies. (7/97)

The NJARC tube program offers clean, tested, boxed tubes at very reasonable prices with availability at any club meeting (no dealers, please...not for resale). Proceeds go to the club. Of course, donations of radio-type tubes in any condition are welcome. See Lud Sibley at any monthly meeting to obtain or donate tubes.

Highly collectible tubes. Send SASE for list of duplicates (mailed in Jan.) Jerry Vanicek, PO Box 4743, Chicago, IL 60680 (No phone calls, please.) (11/97)

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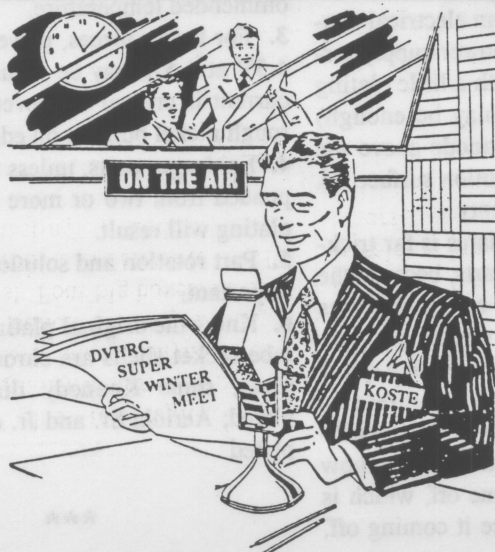
Buying European Radios! Grundig, Telefunken, Saba, Normende, Blaupunkt, French Radios, Polish Goplana, etc. Must be in mint or close to mint condition and in working order. No junkers, please! Richard Brill, P.O. Box 5367, Old Bridge, N.J. 08857 (732)-607-0299 Fax: (908-679-8524) rgbent@aol.com

Someone to repair my Standard SR-G433 transistor radio. Bill Gaston, 622 Witthill Rd., Ridgewood, N.J. 07450 (201)-444-0434

Audio transformers-one for a Crosley 51 and two for an Amrad S522. Jerry Dowgin, 1481 Newark Ave., Whiting NJ, 08759. (908)-350-6259 (2/98)

Two coil forms, B & W 3018; three National R-50 (or similar) 2.5-mh r.f. chokes. Marv Beeferman, 2265 Emerald Park Drive, Forked River, NJ, 08731. (609)-693-9430. (2/98)

Reservations for NJARC's Almost Spring Swapmeet at the Freehold Armory on February 21, 1998. Marv Beeferman, 2265 Emerald Park Drive, Forked River NJ, 08731. (609)-693-9430. Jim Whartenby, 120 W. Franklin St., Bound Brook, NJ, 08805. (732)-271-7701.



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