



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

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Reported by Marv Beeferman

THE ON-LINE BROADCASTER

The New Jersey Broadcaster is now on-line. To date, 94 of your fellow NJARC members have subscribed, saving the club over \$1600 a year. Interested? Send your e-mail address to: mbeeferman@cs.com

Be sure to include your full name.

Sorry for being late with this month's *Broadcaster*. A little water problem at home (don't worry, no radios were affected) shaved a few days from my publication schedule. Another apology is also in order. We had some great entries in this year's homebrew contest, but space problems prevented me from doing the contest full justice. I'll be sure to make up for it in the June issue.

If you haven't been to the InfoAge museum lately, you should really stop by some Sunday afternoon - it's really turning into a first class operation. There have been many new additions including, via an "extra effort" put in by Ray Chase in bidding and pickup, a "U-TEST-EM" drug-store style tube tester. This will be made part of our "radio shop" exhibit.

Ray also reminds us that the annual Wall of Honor dinner will be held at InfoAge on July 21st. The event commemorates individuals who made significant contributions to the programs at Camp Evans. This years' honorees include Harold Jaffe (deceased) who was active in electronic warfare and communications intelligence, Dr. Rudolph Buser (deceased) who was active in laser developments and William Fishbein, active in radar development including "Firefinder." More details will



MEETING NOTICE

The next meeting of the NJARC will take place on Friday, May 16th, at 7:30 PM at the David Sarnoff Library in Princeton, NJ. Contact President Phil Vourtsis at (732)-446-2427 or visit us at <http://www.njarc.org> for directions. The May meeting will feature Part I of the "Crichton" auction. A full listing of offerings can be found in this month's *Broadcaster*. Remember, you must be an NJARC member whose dues are up-to-date for 2008 in order to bid.

follow.

On another topic, are you a radio repairman and restorer who has either run out of your own radios to work on or, more realistically want to support the InfoAge museum? We have received a quantity of radio donations that would make good additions to the club's museum. Others will be set aside for travel-



Can he handle the load? Nominee for NJARC president Richard Lee offers this photo in lieu of a candidate's statement. Richard is shown energizing a newly-installed 400 amp, 240 volt, 3-phase service disconnect switch at 1 Bryant Park in New York City.

ing displays, trades or resale as fundraisers. Many need only a good cleaning and polishing as well as a minor checkout. Why don't you stop by and take a couple home to practice your skills. If you only want to perform a cleanup and polishing, that's fine too. Contact Ray Chase at 908-757-9741 or enrpnr@erols.com.

NJARC Executive Board elections will take place during the June meeting, and

nominations will continue to be accepted at the May meeting. You must be a paid member for 2008 to nominate a candidate or to vote. At present, we have nominations for President (Richard Lee), Vice President (Harry Klancer) and a third Trustee (Ray Chase). Note that the outgoing President (Phil Vourtsis) takes the place of our first trustee and the second will be appointed by our new President. Remaining positions will be continued to be filled by our present officers (if no new nominations are received) but we absolutely need replacements for our Treasurer and David Sarnoff Library Sergeant-at-Arms. A candidate's statement by Harry Klancer may be found in this month's *Broadcaster*.

In closing, I'd like to repeat a posting on the club's information exchange website (the *Reflector*) by Rob Flory who insightfully noted that it is something we could all relate to:

I dragged my son Martin to the garage today to help me reassemble a vintage gas-powered generator that I am giving up on because I found a more suitable one. Five minutes into the project, Martin said "This is more fun than I thought it would be." I answered "Of course, Martin. I wouldn't have asked you to help if it wasn't fun. This is the kind of stuff I do for fun when I'm not working." Martin was quick to respond: "You mean like when you disappear sometimes?"

Pretty perceptive for a 5-year-old.

THE JERSEY BROADCASTER 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. Dues are \$20 per year and meetings are held the second Friday of each month.

The Editor or NJARC is not liable for any other use of the contents of this publication.

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BUILD YOURSELF A SIMPLE STEREO TUBE AMPLIFIER

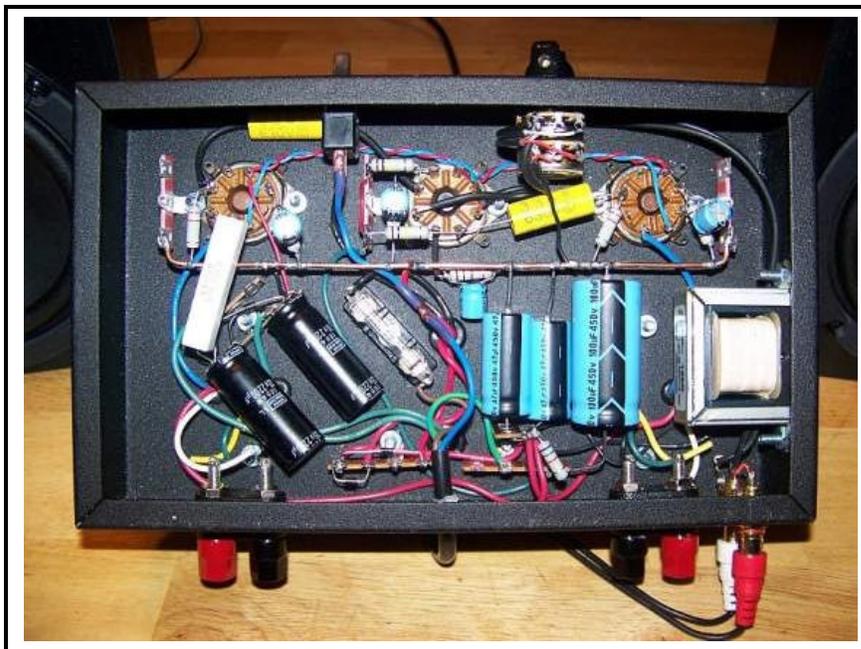
By Sal Brisindi

I like tubes, whether they are in radios, digital clocks or in tube audio amplifiers. Here is a great project you can build in your spare time that will blow your mind. It's a 3/4-watt per channel stereo amplifier using only three tubes; two 1626's and one 12SL7.

The 1626 is a triode that was used in transmitters during WW2. They are usually plentiful and inexpensive but the price has gone up a bit recently because of the popularity of this little amp. It's called the "Darling" because its designer had friends listen to it and he mentioned that it is a "Darling" little amplifier. There is a lot of information about it out there in cyberspace; just do a search.

You can build this amplifier for about \$130 using all new parts or, if you have a well stocked junk box, for a lot less. You may be curious how loud 3/4's of a watt per channel can be. Well, if you have fairly decent and efficient speakers, this amp will fill a nice sized room with plenty of volume.

As you can see from the schematic at the end of this article, it is very easy to build. I used a small 10" x 6" x 2" black, steel Hammond chassis. If you place your parts just right, as shown in the following photo, there is plenty of room.



The first step is the layout of the tubes and transformers on the chassis so the amplifier will look pleasing to the eye and also remain functional. After placing masking tape on the chassis, I placed a mark where I wanted to drill the holes. An Irwin "Uni-bit" was used to drill most of the larger holes.



The next step was to mount everything onto the chassis which included the transformers, tube sockets, speaker terminals, RCA jacks and on/off switch. Make sure you use rubber grommets around the holes where the transformer wires go through the chassis.



Now the fun begins! You will notice that I ran a ground bus wire just below the tube sockets. That made wiring a lot easier as there are many connections to it. The wiring sequence I used was to first solder the resistor and capacitor to the cathode connection on the tube sockets to the ground bus. I then soldered the .33uf/630v coupling capacitors from the plate of the 12SL7 tube to the grid of the 1626 tubes. From there, one by one I soldered the rest of the components to the tube sockets. After the amplifier was wired, I connected the volume control to the RCA jacks and the 12SL7 tube.

I then started on the filament power supply. As you might have guessed, the 1626 and 12SL7 tubes have 12 volt filaments but the power transformer has a filament secondary that is 6.3 vac. How do I get 12 volts DC out of 6.3 volts AC? Well, all you have to do is wire the diodes as a voltage doubler. The DC output is a little high, so you have to add a 2 to 3 ohm resistor in series with the tube filaments.

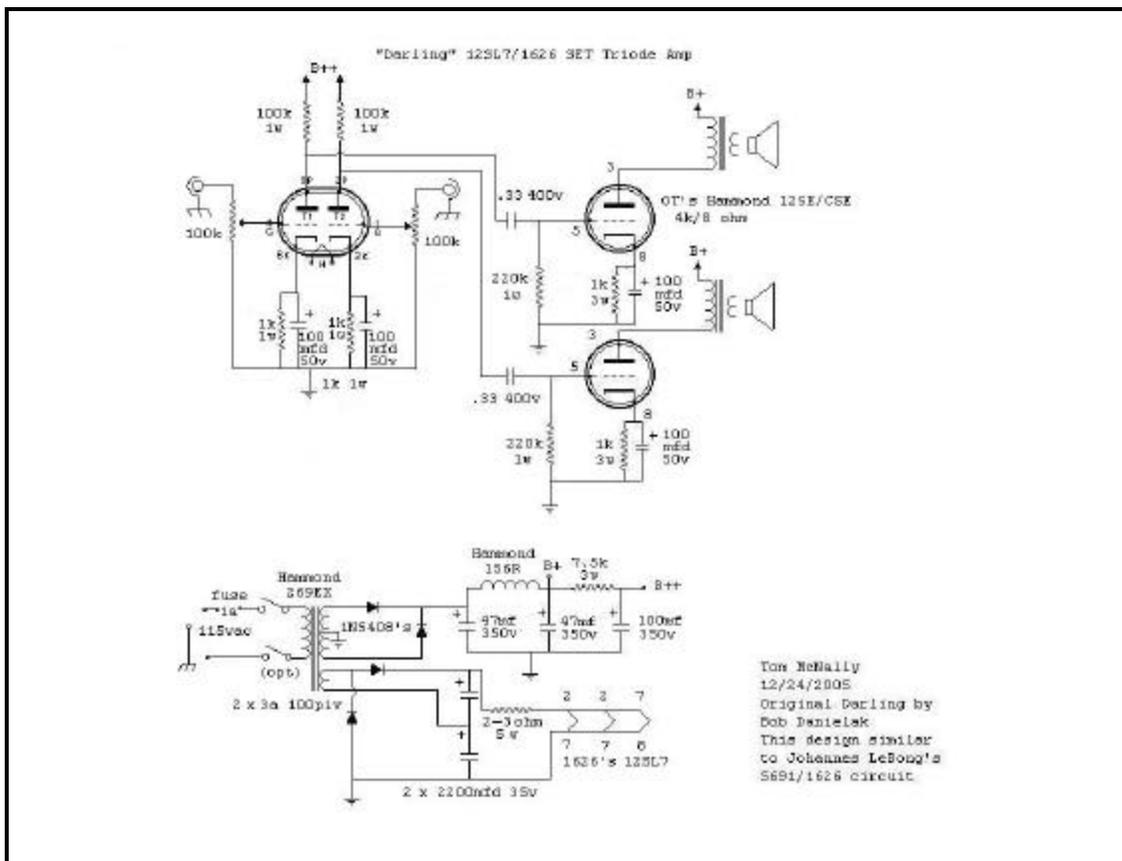
The next step is the B+ power supply. I used UF4007 diodes because they are less noisy than the standard 1N4007 diodes. The B+ filter circuit is wired C-L-C-R-C. I also connected a 1 amp fuse to the primary of the transformer.

When you are finished wiring the chassis, take some voltage readings without the tubes installed. You should have 16 or so volts DC for the filaments that will load down to approximately 12 VDC with the tubes installed. The B+ should measure around 275 volts.

With regard to parts, I purchased inexpensive audio transformers with 5000 ohm primaries from Triode Electronics for \$18.95 each. The rest of the parts were from Radio Daze. You can download additional copies of the schematic from my friend Tom McNally's website at <http://www.tmamps.com/pics/darling122405.jpg>. While you're at it, check out his tube audio page; it seems he builds tube amps weekly!

Overall, as you can see from the picture of my completed amplifier, it is very appealing. The shouldered brown-based 1626 tubes and chicken head knob gives it that vintage look. So connect your MP3 player, a set of efficient speakers, pick your favorite song and enjoy listening to this little Gem. I liked this amp so much, I built 2 of them.





CANDIDATE'S STATEMENT

Harry Klancer

As part of our election process (June meeting), candidates are requested to provide a short summary of their interests and their thoughts about the future direction of the club. The following was submitted by Harry Klancer who has been nominated for Vice President...Ed

My name is Harry Klancer and I have been a member of NJARC for about five years. I first began collecting and repairing radios in the 1950's and early 1960's (funny thing - old radios seemed much newer then). Then I took a brief hiatus of 40 years to be an electrical engineer for the USAF, Bell Labs and Bellcore.

Since joining NJARC, in addition to my general interests in tube radios and OTR program material, I have also been actively involved in the NJARC/NBHF museum at InfoAge. The museum is a great and growing opportunity and I would like for us to take full advantage of it. Combined with Richard Lee's great work in organizing

swap meets and Al Klase's technical expertise, we can make this great club even better.

Some ideas? 1) Published yearly, or at least half-yearly, schedules for meetings and events (always subject to change, of course). 2) Short talks providing technical (or non-technical) "hints & kinks" or FAQs. 3) Book talks. 4) Small, focused contests, such as: plastic radios, transistor radios, short-wave radios, cabinet refinishing, military gear (foreign and domestic), odd tubes, weird power supplies, etc. 5) How about Q&A sessions from the floor? We have people with expertise in a lot of areas.

In other words, let's try some things that are either new or not-recently-done.

ANOTHER GREAT E-SHOP CLINIC

By Richard Lee

Saturday, April 26th, was one of our semiannual "members-only" radio repair clinics held in the "E" shop at InfoAge. Experts and future experts gathered together to help each other with their assorted problem radios. At the end of the

day, most receivers left working better than when they arrived. The day was filled with comradeship, laughs and the exchange of expertise. One minor drawback, however, was those of us over 5'-10" who suffered mild concussions from bumping our heads on the low-lying service conduit running the length of the E-shop.

As usual, comments were positive:

"...I had a ball with my Hallicrafters 5T Sky Buddy. Thanks to Al for helping me with the alignment as well as Marty and everyone else for their help and suggestions. It's a great place and I highly recommend anyone to come."

"Just wanted to again thank Al, Marty, Rich, Steve and all who helped me "mucker about" with my Hallicrafter's SX-16. I was happy to see such a large turnout; it is really a great facility we have there!

The SX-16 was working very nicely when I left; just have to troubleshoot the BFO issue. For anyone who hasn't made these clinics, it is really a hoot! Nice relaxed atmosphere, good work areas, and lots of experienced people to help out when you need it!"



President Phil and Treasurer Sal working on an RCA 45 player attachment or "preparing for the sock hop."



Marty Friedman helping young John Tyminski with his Majestic tombstone (or his English homework).



Al Klase and Scott Roberts working on an SX-16 (or scavenging 456 mfd capacitors for the upcoming crystal set seminar).



Time out for a group photo

2008 CRYSTAL SET SEMINAR

By Al Klase

The New Jersey Antique Radio Club's 2008 Crystal-Set Seminar will be held June 14th at the Radio Technology Museum at InfoAge. (See: http://www.njarc.ar88.net/Xtal_Seminar.htm and be sure to check the pictures of last year's event).

For more than 100 years, ordinary people have been building their own radio receivers that work without the use of batteries or connection to an AC outlet. These radio sets work by using a solid-state device to rectify the radio-frequency

current captured by the antenna. In the earliest sets, this diode took the form of a mineral crystal in contact with a fine wire known as a cat's whisker.

This event will give you the opportunity to share the magic of crystal-set building. The club will supply a kit of parts and technical assistance to construct the New Jersey Antique Radio Club "Pretty Good crystal set designed by noted crystal-set guru Al Klase.

Participants will wind their own tuning coil and assemble approximately ten components into a working receiver. Children 10 and older, accompanied and assisted by an adult are welcome. If you have electrical hand tools (wire cutters, long-nosed pliers, screwdrivers, a soldering iron, etc.), please bring them along.

General admission is free, but there is

a \$15 participation fee for each crystal set kit. The number of kits is limited, so please contact Al Klase (al@ar88.net /908-892-5465) to reserve a kit. This will be a day-long event with registration for set builders opening at 9:30 AM; an orientation will follow at 10:00.

The seminar will run until 4:00 PM so bring a bag lunch or chip in for pizza. Those not building radios are welcome to drop in at any time.

Of course, we're counting on club members to volunteer as "expert assistants." We are also in need of donated parts, especially 365-500 pF variable capacitors. Single or two-section units with quarter-inch shafts are the desirable ones. There will be a donation box at the May meeting.

ANIMATED PARTICIPANTS AT THE 2007 SEMINAR



CRICHTON AUCTION—PART I (At May meeting)

<u>LOT</u>	<u>QUANTITY</u>	<u>ITEM</u>	<u>MAKE</u>	<u>REMARKS</u>
1	1	Radio	Joe Jones (1920s)	4-199s
2	1	Battery Eliminator	GE Tungar	7.5v/15-5/3 amps
3	1	Battery Eliminator	Rectigon Westinghouse 2-96 volts, 2-.25 amps	
4	3	Bulb	Tungar For old battery eliminator	
5	1	CB	Cobra 19 Plus	
6	Boxlot	Novelty Radios	Most from 80s and 90s	
7	1	AC House meter	Westinghouse 5amp	
8	Boxlot	Assorted Meters	Assorted	
9	1	Headset	RCA	Military
10	2	Isolation Transformer		
11	1	Portable Potentiometer	Rubicon	Meter in wooden box
12	1	Field Telephone	Fernsprecher 43	WW2
13	1	Mahogany box	Vintage box for project	
14	1	Audio Generator	Eico 378	
15	1	Heating pad	Very early	
16	1	Pants Presser		
17	1	Tube tester	Hickok mutual Conductance	
18	1	Key (morse code)	German	
19	1	Adustable Coil	Atwater Kent	Mounts on breadboard
20	Boxlot	Tubes	Assorted	Early 4,5, and 6 pins
21	Boxlot	Tubes	Assorted	Loctals
22	Boxlot	Tubes	Assorted	Octal
23	Boxlot	Tubes	Assorted	Octal
24	Boxlot	Tubes	Assorted	Octal
25	Boxlot	Tubes	Assorted	Miniature 7 and 9 pin
26	1	Variac	Type V5	
27	1	Variac	Barcelona	
28	2	Variac	Superior Powerstat	Type 20
29	1	Variac	Superior Powerstat	Type 10
30	2	Tube Tester	B&K Dyna Quick	Emission type
31	1	Radio, portable	RCA Victor	Model 2B400
32	1	VOM Eico 55J		
33	1	Telephone	Model 5306	1954
34	2	Ear Piece		For candlestick phone
35	1	Radio, transistor	Unknown	
36	1	Shower radio		In original box
37	10	Miniature tubes	5718, 572AX	
38	Boxlot	Vibrators		Used and worn
39	1	Neon Bulb	ER' in neon	

FULL HOUSE AT SPRING SWAPMEET

By Richard Lee

Glorious weather greeted attendees at the NJARC's annual Spring swapmeet on April 19th. In fact, it was more like Summer at the PAL building in Parsippany with the outside temperature in the low 80's. Webmaster Dave Sica and I arrived at the air-conditioned building at 6:30

AM to find the parking lot already full of vendors chewing the "radio fat" with coffee cups in hand.

As usual, John, the weekend PAL property manager was waiting to allow us early access into the main hall. Dave was quick to fire up the coffee pots and unpack the "radio buns." At 6:45, as promised, NJARC members started showing up to help with the all-important table distribution and name tagging. With vendors lined up outside, anxiously waiting for the back doors to open, 7 AM chimed the wagon train to roll in.

Vendors were greeted by our member volunteers who escorted them to assigned

tables. Along with the vendors were their "helpers" and a few early buyers (the usual suspects) who don't know how to tell time. At 8 AM, the waiting buyers rushed in, happy to be out of the house and back into the collecting season.

Many thanks to those members who contributed to making this another successful meet, including Dave Sica, Sal Brisindi, Owen Gerboth, Al Klase and Phil Vourtsis. Special thanks goes out to Vinny LoBosco who attended to the vendor entrance and manned the canteen almost throughout the entire meet.



Vendors lined-up at 6:55 waiting for the doors to open.



A nice Air King offered by Sheila Klein.



Members Al Klase and Tom Provost take a coffee break.



Art Kingsley and Lou Ciaffi – two happy buyers.



Steve Sideroff and Frank Johnson.



A full house.



Dr. Mendick selling his fine transistors.



A unique clock radio made by Burnett Rubber Co. of Newark N.J.

KLANCER, CHASE & GOULART BATTLE GIANT MICE

On May 2nd, members Harry Klancer, Ray Chase and Steve Goulart drove their convoy of three vehicles and a trailer to Tamaqua, PA to complete the second phase of another club radio rescue mission. The haul consisted of about 60 items, not counting three additional boxes of books, tubes, pictures and another large pile of old radio programs on cassette. It also included some 13 consoles (a few

nice ones and some heavy Majestics).

With regard to the consoles, their residents did not give up their nests without a fight. According to our "Fellowship of the Triode," this dauntless trio had to do battle with giant rodents to take possession of these radio treasures. Ray Chase reported the following: "It was some tough going for awhile. I could have sworn I heard one of them shout 'get your hands off my precious, before I bite them off.' If it wasn't for the help of some passing elves, I don't know what would have happened."

Seriously, all this stuff had to come down a flight of ancient, narrow attic stairs and the whole operation was a 12-

hour day for these devoted club members. The radios are now safely stored in the Power House building at InfoAge until future disposition. Thanks guys!

Ray noted that he looked over some of the books and found one written in 1942 where the author lays full claim to the cause of the great depression squarely on the emergence of radio. Ray said he's reading the book so he can fully understand this historical revelation. "He would have had a ball with the emergence of television and the Internet."

Report: Courtesy of Ray Chase

Photos: Courtesy of Harry Klancer



The battle lines are drawn!



Steve Goulart takes flight on first sight of giant mice!

