Last month was quite hectic; a home-brew and basket case radio contest, Kutztown and the InfoAge radio/electronics auction among just a few of the activities. In fact, room constraints has prevented me from adding my usual photo shoot of the Kutztown swapmeet to this month's Broadcaster. However, courtesy of Bob Bennett, a nine-minute tour is available at https://www.youtube.com/watch?v=39UuO5YT0Y0.

Steve Rosenfeld and I arrived at Kutztown at 11:00 AM on Friday and found an unusually large overflow of vendors at the second pavilion. One of the major items on my "to do" list was to drop off two cone speakers with Buford Chidester for restoration. A quick tour of all the tables found nothing exciting, especially those early 1920 battery sets that I am particularly interested in. I have two theories about these sets. First, because of their scarcity and noticing that the majority of them show up mostly in estate sales and auctions, I think that a second generation of radiophiles are holding on for their own collections. Second, vendors might be hesitant to bring them to swapmeets considering the high prices some of them demand.

However, I had my eye on a 1925 Music Master 140 battery set that was made by the Sleeper Corporation. Somewhat rare with a chrome top cover and a very stylized logo surrounding the tuning dial, this radio had my attention. When the price came down to what seemed reasonable, I bit. Steve found some interesting paper and by about 2:00 PM we were ready to leave. For those of you who have the ability to come earlier and stay later, buying opportunities significantly increase including an auction on Saturday.

Restrictions make it difficult for many people to volunteer and help out on a frequent basis. However there is one thing that you can do that takes virtually little effort. Over the years, the cost of producing and mailing the NJARC Broadcaster has been steadily rising. Even with some 120 members receiving our newsletter via the internet, the production costs still take a large chunk out of our dues receipts. It would be a great service to the club if those of you receiving the Broadcaster by mail could consider switching to e-mail delivery.

We do understand why some members might insist on being mailed a physical copy. Perhaps you desire to collect past copies? However, with a relatively inexpensive printer, a copy can easily be printed out in black and white or living color! Receiving the newsletter requires no computer expertise; just click on the link that you will receive each month and the Adobe version quickly downloads. We are quite willing to make exceptions for those of you who have problems using a computer and we consider this understandable. But for the rest, in today's digital environment, it is hard to conceive of any reason not to receive online copies of our newsletter.

We are quite willing to make exceptions for those of you who have problems using a computer and we consider this understandable. But for the rest, in today's digital environment, it is hard to conceive of any reason not to receive online copies of our newsletter.

Won't you consider participating? Every little bit helps!

**Upcoming Events**

(Repair clinic - check website)

July 12th: Monthly meeting at Princeton
July 27th: Tailgate Swapmeet at InfoAge
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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THE NEW JERSEY ANTIQUE RADIOPERATORS' CLUB OF NEW JERSEY

De Forest developmental sample

SYLVANIA'S CLIFTON
NEW JERSEY
TRANSMITTING TUBES

(PART II)

By Jim Cross

The story of Clifton’s short-lived tube factory continues from last month. The full article was originally published in the April 2013 (vol. 15, No. 2) edition of the “Tube Collector,” the bulletin of the Tube Collectors Association. It is being reproduced here because of its New Jersey “flavor” with the kind permission of Jim Cross and Ludwell Sibley.

Sylvania had initially tried to get a transmitting tube license from RCA, but they could not agree on the terms. Sylvania looked on RCA’s terms as unreasonable and monopolistic, and took the position that RCA would likely be found in violation of the Clayton (antitrust) Act. So Sylvania decided to risk going ahead and to make the tubes without licensing RCA patents. The risk did not pay off. RCA promptly filed suit. Sylvania made several motions in the case, which were ruled on in July 1934. (11) Sylvania lost all of the motions, and later substantial monetary damages, but in lieu of the money, RCA required Sylvania to dismantle the tube production lines at Clifton and destroy the equipment. (12)

By the end of the year, tube production was finished. Sylvania held on to the facility into 1937, but it was gone by 1938. (13)

After production ceased, at least some of the remaining stock was branded and sold by Anodyne, a small New Jersey maker / reseller. At least Sylvania types 203A and 204A have turned up branded “ANODYNE.”

Some of the former Clifton employees almost immediately founded United, whose types 930 and 967 especially resemble their Sylvania counterparts. Others went to Ampex, who also made tubes resembling the Sylvania 210 and 830.

Presumably, Sylvania was able to recoup some of their investment by licensing the graphite-anode patent, since graphite-anode tubes seem to have appeared in many of the other transmitting tube manufacturers’ lines (e.g., RCA, United, Ampex, Taylor), soon after the demise of production at Clifton.

RCA finally granted Sylvania a license to make transmitting types in 1942 (14), at which point they made the regular assortment of types of standard construction without reverting to their previous construction styles.

Sylvania also made three phototubes at Clifton for use in theater sound-on-film equipment. These are types 803A, 814A, and 868. The 803A (ex - DeForest 603A) is essentially the same as a Western Electric type 3A. The 814A is a general-purpose type similar to the 1P30 and Cetron CE 2. The 868 is the same as the common RCA type.

In addition to tubes, Sylvania made a few military radios at Clifton. These are fairly rare. They made at least the RAG-1 longwave receiver for the US Navy in 1933, and also a seven-tube receiver for the US Coast Guard in 1936.

COLLECTING SYLVANIA’S CLIFTON TRANSMITTING TUBES

Appendix A gives a list of Sylvania’s 1934 Clifton offerings. The tubes not requiring crates came in Sylvania’s characteristic forest-motif boxes, and most sport heavy graphite anodes and the Sylvania name in script on the glass. Many of the smaller transmitting types have white ceramic bases. Due to their brief window of manufacture, most are scarce. The most commonly seen type is their type 210, which was meant to be a direct substitute for any regular type 10 in transmitting applications, along with the graphite anode and ceramic four-pin base. These have an unusual short T-18 bulb.

Differentiating among the 210, 830, 841, and 842 is sometimes difficult, since the script logo tends to wear off. The 830 has a longer plate than the other three. While the 841 and 842 look substantially alike, the 210 differs in having small circular white ceramic spacers above the plate, where the 841 and 842 use black graphite spacers.

Although strongly advertised, one of the
scarcest of the lower-power types is the 825. This was a unique VHF triode, with a plate cap on top and a grid cap on the side. This is not to be confused with the Taylor 825 (which is similar in look and function to a type 10) or the magnetically controlled RCA type 825.

Another unusual type is the 211B, which is similar to a standard type 211 with a grid cap.

If you are able to amass a few of these, a bit of comparative anatomy becomes possible. In one direction, these tubes’ DeForest ancestry becomes apparent, especially when comparing the construction of the DeForest 565 and 525 with the Sylvania 865 and 825, respectively. Also, base marking and printing on the larger types is nearly identical to that of DeForest. In the opposite direction, after the demise of the Clifton operation, some employees went on to found United and others went to work for Amperex. The United types 930 (830) and 305D (205D) are nearly identical to the Sylvania types, and the early Amperex 830 and 801 types likewise resemble the classic Sylvania triodes.

Whether you are drawn to them for their scarcity, historical significance as the first graphite anode types, or simply for their unique construction, the tubes made at Clifton are good additions to any tube collection.

ENDNOTES
(11) RADIO CORPORATION v. HYGRADE SYLVANIA CORPORATION, 10 F. Supp. 879 (1934).
(12) As [4].
(14) "Sylvania During 50 Years," address by Don G. Mitchell, president of Sylvania, to the Newcomen Society, December 19, 1951 (courtesy of Alan Douglas).
1. Tubes followed by “(gr)”: graphite anodes
2. Type 211B is a regular 211 with a grid cap (not a plate cap). It is not a VT-4B.
3. Type 820B is the Sylvania make of the former DeForest type 520 water-cooled tube.
4. Type 820M is the modulator/oscillator version of the 820B, but has a mu of 8.
5. The 820MM is the modulator version, with a mu of 5.
6. This is the Sylvania version of the DeForest 525. It is not similar to the RCA or Taylor types.
7. The 830 has no plate cap, and has a mu of 8 with a normal RF output of 40W.
8. The 830A is essentially a type 830 with a plate cap, uprated to 60W.
9. The 830B is the same as the more familiar RCA type.
10. The 867 is not the same as the RCA 867 phototube. It is essentially equivalent to the GE FG-17 thyatron, and is the progenitor of the United type 967.

THE "RADIOLIER" RADIO LAMP

By Marv Beeferman

Through the years, radio designers have attempted to merge radios with other household conveniences, the most common being clocks and lamps. With regard to lamps, the most common are probably those made by the Radio Lamp Company of America (1939) and the Mitchell Lumitone Lamp Radio (1941).

Last month, president Richard Lee showed me the prospectus for the initial 1923 stock offering of the Shepard-Potter Corporation for $10 a share. The company's business was described as follows:

"The Corporation manufactures the "Radiolier," the most beautiful and efficient radio receiving set on the market which won First Prize at the Radio Show held at the 71st Regiment Armory, New York City, after taking the Show practically by storm. Since then the Radiolier has been featured in thousands of newspapers and periodicals throughout the United States and Canada. In addition, the Corporation manufactures the "All-Wave" Coupler whose compactness and superiority over similar devices made the Radiolier possible."

"Within fifteen minutes of the opening of the doors (Radio Show), so many women had congregated around a booth in which a radio instrument had been artistically coupled with a table lamp (the Radiolier), that it was necessary to call the Radio Cadets Corps into action and keep the aisles open for others to pass."

Radio Cadets Corps indeed! It is difficult to say whether the "Radiolier" was ever put into production or any examples exist today. If any do, the shade has probably deteriorated by this time. Although it would be interesting to find the details of this strange creation, so far, a search of the internet found no references to either the radio or the Shepard-Potter Corp. This seems to conflict with the company's claim that the radio was featured in thousands of newspapers and periodicals throughout the United States and Canada. Anyone out there have any other information?

HOMEBREW/RESTORATION CONTEST RESULTS

By Marv Beeferman

Quality not quantity summarizes the club's 2013 Homebrew Radio Contest and Basket Case Radio Restoration Contest. The contests were well-publicized in the Broadcaster and normally a lot more homebrew entries show up, but perhaps the weather and events at InfoAge were
limiting conditions. Thanks to all who took the time to participate - you are all considered winners!

When asked how long it took to restore his 1938 Emerson BU-229 table radio, Harry Klancer just replied "many weeks." Harry's BC/SW 7-tube model in an Ingraham cabinet is sometimes referred to as "half a Mae West," that iconic radio inspired by the Brooklyn Bombshell and designed by Count Alexis de Sakhnoffsky.

Harry purchased his basket case at an auction at the Sarnoff Library. The top was severely warped and had to be flattened using boiling water and woodworking clamps. Materials used in the restoration included naval jelly, appliance spray, Minwax stain and wax, and Mohawk toner and lacquer. New decals were obtained from Radio Daze.

Not exactly a basket case restoration, Walter Heskes' story of his "Frankenstein" project could be considered almost "historical." Walter's acquisition of a Gloritone 26 chassis (without the cabinet) starts when the club was holding meetings at the Grace Lutheran Church in Freehold. The 1931 model 26 is an ac-powered, 5-tube TRF receiver covering the standard broadcast band.

Walter's search for a cabinet continued over the years until it turned up at an auction at the Sarnoff Library. However, it had two major problems. First, the former owner had cut out the center to accommodate an 8-track player. Second, the escutcheon was missing. However, some wood putty, a Grebe escutcheon and a little help from Marty Friedman was all that was needed to allow this radio to be resurrected in its new life as what Walter calls a "Grebetone."

Matt Reynolds entered the homebrew contest in the "beginner" category using a circuit he found on a Japanese website. The heart of his subminiature radio is based on a 5678 pentode. The antenna coil is the same as that used for Al Klase's "Pretty Good Crystal Set II." The compact unit was fitted into a USB tin. Matt got from work; it runs off three 9-volt batteries for B+ and one AA battery for the filament. At first, the radio could not receive any stations and with some diagnostic help from Al, it was found that the tapped toroid coil was wound outside the AM band. A rewind brought the radio back in range and it now receives about three stations. Matt would like to thank Al Klase, Richard Lee, Steve Goulart and Bob Bennett for parts and guidance.

Not exactly a recent homebrew, Robert Forte described a 6 meter, AM transceiver that he built in the 50's while a student at Brooklyn Technical High School. The transceiver uses IRC transistor subassemblies.

Pete Olin's inductively coupled crystal set was fabricated to ensure very high Q coils. Litz wire was wound on styrene pipe couplers with spacing at 8 turns per inch and 12 turns per inch respectively. To ensure uniformity of spacing, the wire was fitted into depressions turned on a lathe. Mounts made from pizzeria cutting boards hold the coils in place; the dials are from Atwater Kent and the diode a 1N34. Pete notes that with a 6-foot antenna and a very sensitive Navy headset, Ohio, West Virginia and Boston are easily picked up.
For those of you who get a chance to venture into Brooklyn, New York you may want to stop in to see one of Park Slope’s unsung icons, Hugo Picciani. Hugo is an 85 year old master mechanic who has one of the best and oldest collections of World War II era radios and artifacts in the metro area. Hugo is a combination of raconteur, master machinist who can fabricate and repair just about anything, philanthropist, homegrown social worker and unofficial president of the “Seventh Street Irregulars” - a group of guys and gals that pop in daily to chat and "schmooz."

Hugo’s small, unobtrusive and easily missed building at 314-7th Street is just off 5th Avenue in the Park Slope section of Brooklyn. The first floor includes, behind caged windows, a machine shop, a collection of old radios and a true museum of old parts. The second floor has two apartments, one of which he has occupied for years and the other a rental. The basement is a huge storage facility which abounds with all sorts of electrical and structural parts, all orderly inventoried in Hugo’s brain.

Hugo’s collection is now up for sale and includes radios of all types going back to 1915. Included are two complete Marconi 106 receivers and another in parts awaiting reassembly. Also included are WW I aircraft transmitters, vintage tubes (VT-1’s, VT-2’s, etc.), a homebrew spark gap transmitter and all the ephemera related to these early years. His machine shop is without equal, complete with lathes, a milling machine, numerous drill presses, a brake and welding gear.

Ray Chase and I visited Hugo on May 21st as Ray needed some corona spheres. Hugo could not fabricate them easily but because he knows just about all the old timers, a source was found to meet Ray’s needs.

We noted that Hugo does not pay for lunch as the local merchants supply him with all his needs as he freely donates his time to the repair of their appliances and equipment. His shop is a quasi social club as all day long people stop in to chat and Hugo seems to have a lot to say; he’s a philosopher, woman charmer, social worker, mechanic, inventor, electrical and electronics expert and historian all rolled into one. Hugo was once called upon to start a P-51 Warbird which had landed at Floyd Bennett Field in Brooklyn (which he did).

But now Hugo feels the need to sell his collections (except his radios), supplies and tools as age and a slight medical condition precludes him from continuing his trade. You can easily find out more about Hugo on the internet since he has been the subject of a New York Times article (“His Radio Days and Nights”), a Morning News Article (“Out of the Old Hotel”) a PBS interview and was even the subject of an eight-channel sound installation and original score. There’s even a video showing him in his shop. If you’re interested in the life of a unique individual from a bygone era who still insists on using his old, wall-mounted rotary phone, look up Hugo Picciani.
We had a nice turnout for our radio/electronics auction at InfoAge on April 27th. Member Ray Chase did a great job in organizing the event and allowing it to run very smoothly, especially in testing tubes and creating the bid catalog. In addition, ample club support in moving the auction items from storage to the "H" building got things off to a good start. Special thanks to Marsha Simkin, Edith Chase and Dave Snellman in handling check-in and checkout duties and to Steve Rosenfeld and John Dilks for recording the bids. Finally, thanks to Richard Estes for volunteering his excellent auctioneering services.

The final bid for the very rare Emerson two-faced radio and clock came in as expected - $3750. A beautiful Bosch Ambertone cone speaker with an oriental motif and good driver was hammered down at $400 and a pair of Klipsch "Heresy" speakers went for $300. I was very interested in these two items but they were a little too high for what I was considering paying. Most of the remaining bids were somewhat high but there were some odds and ends that went for reasonable prices like an ornate drum speaker that sold for $45.
This rare Emerson two-sided clock radio was taken home for $3750.

Klipsch "Heresy" speakers: $300

Bosch Ambertone cone speaker: $400

Edith Chase, Marsha Simkin and Dave Snellman handled the check-in and checkout duties.

John Dilks and Steve Rosenfeld recorded the bids.

"Just the tube I was looking for!"

Ray Chase and Pete Graves discuss a pre-auction strategy.

Richard Estes volunteered his auctioneering services.

Your editor purchased this nice homebrew at a reasonable price.

This 1949 Emerson 587 has an asking range of $45-60; it sold for $40.

Fada 1952 P111 portable: $30