

The Jersey Broadcaster is

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The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB



March 2023

Volume 29 Issue 3

Meeting Notice

Our March meeting will be held at InfoAge, Meeting Room 9032A. The meeting date is Friday, March 10. The meeting topic will be "David Sarnoff and the early days before the Radio Corporation of America" by Dr. Alex Magoun. Also, BCBDX Contest winners will be announced and awards presented.

For our non-local members and anyone who is unable to make the meeting in person, it will also be livestreamed on our <u>YouTube channel</u>.

Meeting Review

Our February meeting featured a demonstration of "Online Circuit Simulators by NJARC member Prof. Mike Littman of Princeton University.

Circuit simulators are a way to 'test drive' a design for an electronic circuit without having to physically 'breadboard' components. They come remarkably close to accurately simulating the behavior of electrons through various circuit components and configurations.

Mike entertained and informed us by showing several examples of different circuit configurations that would be of interest to the vintage electronics hobbyist. Although these programs are designed primarily with contemporary circuit configurasion in mind, they do include some vacuum tube data.

Editor's note: I sure could have used one of these years ago when I was starting out with this hobby. I would have had far fewer blown transistors, fried resistors and probably would have even ended up with a few 'bricks-andmorter' circuits that actually worked!

The presentation is available on the club's <u>YouTube</u> channel.

Upcoming Radio Events

Check the calendar on our website for the latest information about upcoming events. Some key dates are:

March 11: <u>Vintage Radio Auction, Jackson NJ</u> April 14: NJARC meeting, Princeton University May 11-13: Kutztown Radio Show May 19: NJARC meeting, InfoAge May 27: BARA Hamfest, Westwood NJ June 9: NJARC meeting, Princeton University June 23-25: NJARC/ARRL Field Day, InfoAge July 14: NJARC meeting, Princeton

From the President's Workbench

Greetings Fellow Enthusiasts.

It was at our April 5th 2014 Spring Repair Clinic, that a woman named Silvia arrived with a clock radio to be fixed. She had contacted me weeks previous, exclaiming how happy she was to find us here at InfoAge! She was local, living in Neptune, and knew InfoAge only as Camp Evans, where her father had been stationed. This was not an unusual story from many "locals" we have met.

She said the clock radio was made by Philco, but could not tell me the model number. I asked her to look on the bottom of the cabinet, but she found nothing. She said the clock worked but not the radio, "it just hummed". I said on the phone that 'it was an AA5" which of course meant nothing to her, and I told her we would figure it out.



A typical AA5 clock radio

She said the clock radio was her favorite uncle's and it meant a lot to her to have it playing again! OK, most of us collectors don't regard clock radios with much nostalgia. If we remembered them, it was only because they were set on the local news station which would wake us up, out of bed and off to school! Silvia called me very early that Saturday morning to confirm her appointment.

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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 \$25 per year and meetings are held on the second Friday of each month either at InfoAge or at Princeton University. Neither the editor nor NJARC is liable for any other use of the contents of this publication other than for information.

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From the President's Workbench (Continued)

I said we had many repair clients scheduled that day, but your clock radio should be a quick repair.

When Silvia arrived at 10am, she had a peculiar request, she said she needed help getting her clock radio out of her vehicle. Being busy with other arriving clients, I asked one of our experts to see what her problem was with the clock radio. He came back in, and said **he** needed help bringing her **clock radio** inside!?!

And yes, you guessed correctly: it was a Philco 1931 Model 570 Grandfather clock radio!

From my Collection By Marsha Simkin

Happy St Patrick's Day!

This unused postcard was made in the USA and has the number 912 printed on it. The partial illustration of a radio and speaker might suggest it was produced in the mid 1920s but there is one clue that puts the card more toward the later 20s. The text, inside the frame printed for a stamp, reads -

912





Notice the word "NOW" is emphasized. On July 1st of 1928 the price of senda postcard ing within the United States was reduced from two cents to one cent where it remained until 1952. It was then raised back to two cents and has steadily increased forty-eight to cents where it is today.



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Visit a Museum By Ray Chase

Visit a Museum: I am not referring to our Radio Technology Museum that you certainly should visit but to the Nokia Bell Labs Museum at Murry Hill, NJ.



are doing a good job of preserving its history. It may not be common knowledge that the museum is open to the public on weekdays, 8 to 5. The museum is off the main lobby, is self-guided and contains a host of displays relative to the history of radio, telephones and other communications and entertainment technologies. No appointment is needed but you will not see the archives building; that was only by special arrangement with Morven. The address is: 600 Mountain Ave. Murry Hill. My GPS did not recognize Murray Hill and if you have that problem, use New Providence, NJ. It is a "well worth it trip" if one is within reasonable driving distance.

I have lived within a few miles of Bell Labs, Murray Hill for over 65 years but never visited there or knew that they had a museum open to the public. Early in February, through our own museum's relationship with Morven Museum in Princeton, they arranged a tour of Bell Labs in which several of our members participated. The vast history of invention at Bell Labs made this event most interesting. The guided tour encompassed the public museum, but we were also allowed to visit their archives building.

Of course, Bell Labs has changed hands since the divestment of the

Bell telephone system some years ago and it is c u r r e n t l y owned by Nokia, who on knowledge



[Editor's note: another of our members took a tour of this museum recently and we'll have a detailed review along with photos in a future edition of The Broadcaster.]

Another Big Antique Radio and Vintage Electronics Auction

JD Auction Services will be conducting another big antique radio and vintage electronics auction this Saturday, March 11. The event will take place at the Jackson Mills Fire Station, <u>465 N. County Line Road, Jackson, NJ 08527</u>.

These events typically feature a good mix of items ranging from high-end vintage audio and radio items, to carefully curated but more common (and more affordable!) lots, to box lots of vacuum tubes and parts. As the saying goes "something for everyone!"

Items in this auction come from two main sources: the estate of longtime collector and NJARC member Pete Grave and items surplus to our needs at the club's Radio Technology Museum at InfoAge. Proceeds from the InfoAge

An auction catalog will be available later this week and at the event, but many of the available lots are listed on AuctionZip. The online listing can be viewed on the AuctionZip website. (https://bit.ly/3ZHw9yH)



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Can You Hear Me in the Back? By Bill Zukowski



Can You Hear Me in the Back?

A short history and physiology of microphones



Can You Hear Me in the Back? (continued)

THE CARBON MICROPHONE

History: Sir Charles Wheatstone was the first person to come up with the word "microphone" in 1827, but it was Emile Berliner who invented the first microphone in 1876, trying to improve Bell's telephone transmitter. In 1878, David Edward Hughes, further improving Bell's "liquid transmitter" (water/vinegar solution), invented the carbon microphone, using carbon granules loosely packed between two metal plates. In 1886 Thomas Edison, further developed the carbon transmitter, using granules of anthracite coal packed between two electrodes.

The **SINGLE-BUTTON CARBON MICROPHONE** is based on varying the resistance of a pile of carbon granules located within the microphone. An insulated cup, referred to as the button, holds the loosely piled granules. It is so mounted that it is in constant contact with the thin metal diaphragm. Sound waves striking the diaphragm vary the pressure on the button which varies the pressure on the pile of carbon granules. The dc resistance of the carbon granule pile is varied by this pressure. This varying resistance is in series with a battery and the primary of a transformer. The changing resistance of the carbon pile produces a corresponding change in the current of the circuit. The varying current in the transformer primary produces an alternating voltage in the secondary. The transformer steps up the voltage and matches the low impedance of the microphone to the high impedance of the first amplifier.







Can You Hear Me in the Back? (continued)

EXAMPLES OF SINGLE BUTTON CARBON MICROPHONE



Telephone "transmitter"



Shure Model 104C



Can You Hear Me in the Back? (continued)

In the **DOUBLE-BUTTON CARBON MICROPHONE**, one button is positioned on each side of the diaphragm so that an increase in resistance on one side is accompanied by a simultaneous decrease in resistance on the other. Each button is in series with the battery and one-half of the transformer primary. The decreasing current in one half of the primary and the increasing current in the other half produces an output voltage in the secondary winding. The output voltage is proportional to the sum of the primary winding signal components. This action is similar to that of push-pull amplifiers.



Advantages: Improved frequency response compared to the Single Button Carbon microphone.

<u>Disadvantages:</u> As in the single button carbon microphone, the constant voltage on the carbon granules can create a hiss, that gradually increases until the granules are disturbed, either by speech to tapping the microphone.

EXAMPLES OF DOUBLE BUTTON CARBON MICROPHONE



American Model EL ca. 1934 - \$5.00

Herbert Hoover, ca. 1925

Electro-Voice Model 100-D

"Can You Hear Me in the Back?" will be continued in the next issue of the *Broadcaster*. Stay Tuned!

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Adventures in Electronics

By F.G. Feczko

I was this kid, see... It was the sixties; I was a young pup - 13 I think - still perfecting the "art" of "junking", or as I called it: "Line cord fishing."

I grew up in a small city in New Jersey, with its "blue collar" neighborhoods and "cookie cutter" houses. At night, I was called upon to walk the dog for my mother and pick up the night owl edition of the *Daily News* for my father. Every few nights the trash was put out and in the age before "Hefty" glad bags, treasures could be found.

I would go junking and the lamp cords were my fishing lines. The wires were usually hanging out of the can. You would pull and see what was on the other end. A toaster; throw it back, a lamp; return to sender, a radio; PAYDIRT! I was doing this routine for a couple of years, when after accumulating an ad hoc collection of radios, phonos and tubes (not to mention the occasional *Playboy*) I came across a find!

At first it was just an aluminum chassis, sparsely inhabited with one electrolytic capacitor, a variable cap, a terminal strip, a loud speaker and "labeled" tube sockets which I found to be unusual. I got home with my prize, then realized something was missing:

THE BOOK! I ran back to the "spot" and whew, retrieved the book: Adventures in Electronics. I pored over the book every chance I had. I came across the project that "hooked" me to this habit: "The Home Broadcaster." Over the course of the next few months, I put together enough allowance to go to Parts Unlimited which was our radio/TV tubes and parts store. So I would pick up 10 cent resistor here and a 59 cent capacitor there and whatever I could scrounge from the owners. I became a regular customer.

So I gathered the parts needed, borrowed some tubes from mom's clock radio (shh!), borrowed a soldering iron from Uncle Andy(the furnace) and went to work on my Frankenstein. I followed the *NRI* book faithfully and I was done I flicked the switch. The tubes glowed to life, a nearby radio crackled and whistled. I was "ON THE AIR!" Later on I added my sister's juvenile record player and microphone, cobbled together with erector set parts, Styrofoam cup and my old transistor radio case and speaker. A trip to Canal Street in New York City netted a 25 cent toggle switch so I could turn the mic on and off. I was a full fledged home broadcaster. I would amaze my friends.(just like the ads of the day said) with my meager but eclectic collection of Spike Jones, Beatles and Beach Boys records.

One summer night I was on the air on the sneak after bed time, around 9 o'clock. I sat in darkness, my only illumination came from the glow of those five tubes. My friends, Mike and Stuey were outside listening to me



CONAR adventures in electronics



gabbing on the radio, when my bedroom door flew open-I WAS BUSTED! It was my mother: "What are you still doing up? Now get to bed!" Obediently, I shut my home broadcaster off. On the other end, my faithful listeners heard the music fade, the ac hum cease and the quiet carrier faded as the static took over on 1610 kc. Oh what a night!

A fan of late night radio host Jean Shepherd and then Long John Neville, I grew up in Bayonne NJ. Later I became a hobbyist radio pirate, record collector and CBer-turnedham radio operator (KB2MCO.) So the antique radio hobby had very early roots. March 2023

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Radio Trivia By Marsha Simkin

When does a Tuna Sandwich equal a radio?





???

Most of us are familiar with what is called "Diner Lingo". It was and maybe still is the particular language that was used in the fabled American diners both past and present. Short order cooks and waitresses had their own slanguage. It was originally used as a mnemonic device to save time and avoid confusion in the ordering process. Here are some examples of their shorthand vocabulary:

The term for toast was "down," the motion of lowering the toast into the toaster:

- •"Whisky down" (as in rye whiskey) meant rye toast
- •"Brown down" was wheat toast
- •"BLT down" = bacon, lettuce and tomato on toast
- •"Shingle" and "raft" also referred to toast and were used interchangeably with "down"

Additionally:

- "Adam and Eve on a Raft" = two eggs on toast
- •"Adam and Eve on a raft and wreck 'em" for scrambled eggs and toast
- •"Fry two and let the sun shine" meant two eggs with unbroken yolks
- •"Two dots and a dash" = two fried eggs and a slice of bacon
- •"Give it shoes" = it's to go
- •"Hold the grass" hold the lettuce
- •"Yellow paint" = mustard
- •"Burn the British" a toasted English muffin

•"Pittsburgh" was to toast, burn or char something, presumably referring to the coal and steel production that blackened that city's skies

But what did it mean when the word "Radio" was called out to the kitchen?

"Radio" = Tuna on Toast

We've already heard that "down" means "toast," so it follows that the original slang for a tuna sandwich was a "tuna down." This later evolved to "radio" because the word "tuna" was misheard as "tune it." The phrase would have been heard around the diner as workers yelled back to the kitchen to "tune it down" or to turn down the radio. This word association stuck and some diner slinger changed a tuna sandwich to "radio."

