MEETING/ACTIVITY NOTES

The ON-LINE Broadcaster

The Jersey Broadcaster is now on-line. Over 160 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

Thanks go out to NJARC member Professor Mike Littman for his talk and demonstrations at the March meeting on the life and experiments of Alexander Graham Bell associated with the development of the telephone. Professor Littman talked about how Bell’s family interest in teaching elocution and speech ultimately influenced Bell’s future work on the transmission of sound. Professor Littman seeded his talk with explanations and demonstrations of concepts associated with the Wheatstone Bridge, variable reluctance, the Duplex Telegraph and multiplexing.

Bell’s early teaching and experimentation eventually took him to the Boston School of Deaf Mutes. As a private tutor, one of his pupils was Helen Keller who came to him as a young child unable to see, hear or speak.

During his time in Boston, Bell continued his experiments with his "harmonic telegraph." Its basic concept was that messages could be sent through a single wire if each message was transmitted at a different pitch. Professor Littman demonstrated this concept using a guitar tuned to various frequencies. In 1873, Bell decided to fully concentrate on his experiments with sound. With his harmonic telegraph entering a formative stage, Bell thought it might be possible to generate undulating electrical currents that corresponded to sound waves. He also thought that multiple metal reeds tuned to different frequencies would be able to convert the undulating currents back into sound.

With financial support from Thomas Sanders and Gardiner Hubbard and working with Thomas Watson, Bell found that only one reed or armature, not multiple reeds, was needed for transmitting speech. On March 10th, 1876, Bell succeeded in getting his "acoustic telegraph" to work using a liquid transmitter (which began a patent battle with Elisha Gray). In this telephone, vibration of a diaphragm caused a needle to vibrate in water, varying the resistance of the circuit.

After March 1876, Bell focused on improving the electromagnetic telephone and never used the liquid transmitter for commercial use. In 1879, the Bell company acquired Edison’s patents for the carbon microphone making the telephone practical for longer distances.

Our March meeting also featured recognizing some of the winners of our 2019 BCB DX Contest:

John Ruccolo took first place in Category E – Amateur, Commercial and Military Tube Type Radios

Jerry Dowgin won first in Category C – 1920’s Battery Sets

Aaron Hunter took first in Category F – Any Radio of Your Choice
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 the second Friday of each month at InfoAge or Princeton University. The Editor or NJARC is not liable for any other use of the contents of this publication other than information.

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An interesting story is attached to the auction that will be held at the April meeting. As told by member Bob Bennett (of RadioWild fame), about a little over a year ago, he was contacted by Stanley Subhan who asked him if he could do some radio repairs. After an email contact and phone conversation, Bob did not hear from him again. He figured that either he decided against the repairs or found someone closer to home. In early April, Bob was contacted by Stanley's son Phillip and was told that his dad had passed away. The sons and daughter had found that their dad had notes and emails from Bob and the notes stated that Mr. Subhan had willed his antique radios and test equipment to the NJARC. Mr. Subhan was a retired chemical engineer for Exxon/Mobil and also a ham operator. He had quite a station with mostly Kenwood and Drake gear. Bob noted that "I wished I could have spent more time with him, but sometimes these unfortunate things happen. Mr. Subhan's son Phillip was very nice and helped me load the (following) auction items in my car."

- Zenith 10S569, 1941, 10-tubes, 6V6's push/pull, working.
- RCA Bakelite table radio, BC + SW, untested.
- Hallicrafters S-85 with added S-meter; working but recapping suggested.
- Heathkit TC-3 tube checker; untested.
- Heathkit SG-6 signal generator; untested.
- Supreme TV-50A signal generator; untested.
Member Ray Chase has forwarded the following comments noting the passing of Tom Taylor whose newsletter has been occasionally quoted in the Broadcaster:

"Occasionally, I have mentioned a Radio/TV management newsletter that was produced every day called Tom Taylor Now. Tom had produced this 4000 word newsletter for 31 years, highlighting management and regulatory information affecting the day-to-day business of operating our Nation's radio and TV stations. I've known Tom for some time as he shares my hobby of postcard collecting. Tom had been producing this newsletter largely by himself but, in December of 2018, he finally announced that he had to give it up and retire. I was not a regular reader but occasionally logged in to check on what was current. More often, I'd check on his anecdotal tidbits recounting strange and humorous occurrences at broadcast stations which often occurred in the wee hours of a long shift or what happens when electronic gremlins interrupt a broadcast.

I ran into Tom at a recent local postcard club meeting after not seeing him for a couple of years. I cannot imagine how he single-handedly produced so many words of copy for five days a week over 31 years. Tom deserves his retirement, but the radio/TV industry will surely miss his daily commentary and gossip."

We sadly announce the passing of longtime NJARC member Robert Chis on February 28th. Robert was an active member of the New Jersey community and worked for the Linden Housing Authority. He was also part of the line dancing community.

In early March, members Dave Sica and Joe Kajewski (who was Bob's friend for some 45 years) attended an impromptu memorial service at the Paradise Dance Club in Asbury Park. Bob had many friends at the club who got together there nearly every week. Bob's other interests included vintage cars and he owned several. He was also a "motorcycle guy" and had a big Harley.

Bob was a little camera shy but I'll continue to search my files for his participation in club activities.

There is a new display in the Radio Technology Museum (RTM) hands-on room created by NJARC member Leo Assur that has turned out to be very popular. The display uses a hand-crank magneto from an old telephone that once was used to signal a central station telephone operator. Cranking generates an AC voltage that is fed to a rectifier to make DC that is then stored in a capacitor. A meter monitors the voltage as it builds up to around 100 volts. Then, a two-position switch allows an incandescent bulb or an LED bulb to switch on. The time it takes for the voltage to dissipate is a measure of the efficiency of the type of bulb used. The LED uses up the voltage much slower than the incandescent bulb which wipes out the stored energy within a second or so.

Signage has been posted to show how all this works as a demonstration of electricity generation, rectification, storage and usage with an implied message about conservation of energy. The whole display is housed in a transparent case. Both kids and adults alike love to operate the magneto. Thanks Leo.

Upcoming Events

May 10-11 - Kutztown Spring swapmeet
May 17 - Monthly meeting at InfoAge; Presentation by Al Klase (topic TBA)
May 18 - Spring Repair Clinic at InfoAge
June 14 - Monthly meeting at Princeton; presentation by Alan Wolke (topic TBA)
July 12 - Monthly meeting at Princeton; topic TBA
July 20 - Summer Tailgate Swapmeet/Hamfest at InfoAge

Mel Nusbaum has created and donated a print of a collage he created commemorating the World's Columbian Exposition held in Chicago in 1893. A descriptive panel mounted below the print explains how Nikola Tesla displayed experimental lighting and his electric motors. The Edison lighting display was dazzling and introduced the wonder of electric lighting to the country. The print is mounted near the museum entrance and the chronological starting point of electronic technology displays. Thanks Mel.

As an interesting aside, when we demonstrate our Tesla coil and ask viewers what they know about Tesla, often the response is "doesn't he make cars." So much for the rich history of science and ingenuity.

Red Letter Day at the Museum

On Saturday, March 16th, InfoAge hosted the NJ School Board Association's Central Region "STEAMTANK" competition where science projects by 400 student teams were judged for various aspects of their creativity and application. NJARC member Jules Bellisio was one of the judges.

A huge crowd of over 300 was expected so the RTM was requested to stay open from 9 AM to 5 PM to accommodate potential visitors. This was the same
day that our Spring swapmeet was held at Parsippany. So, while many of us were buying and selling, members Paul Hart and Jim Doran volunteered to handle the museum. The pair did a "yeoman service" in guiding some 300 students, their parents and the regular museum traffic throughout the facility. Paul even had to help with traffic flow in the parking lot. As Jim Doran noted about the challenge:

"...Paul and I had a teamwork approach and handled it with aplomb. We were on our feet from before nine right up until nearly five, with a constant flow of visitors, mostly children, with a few parents and teachers, nearly all of them enthusiastic and involved, some of them very much so. (Harry Klancer noted: "You must have the magic touch, since some of the other InfoAge folks were definitely not as happy with their crowds."...Ed.) I’d guess we had between two and three hundred visitors. We even had a couple of kids ask whether there was any chance that they could volunteer with us! I made sure their parents left with our card. All exhibits and displays worked as intended, though some, especially the TV’s, required frequent adjustment from all the hands-on attention they got. All in all, a great day."

Paul and Jim deserve high praise for presenting InfoAge and the NJARC in a favorable light and expanding the outreach that the RTM provides to the community.

PARSIPPANY SWAPMEET EXCEEDS EXPECTATIONS

By Marv Beeferman

It's hard to determine what exactly prompted the great turnout for our Parsippany swapmeet, although I tend to think that good advertising played a role. Our usual buyer attendance runs about 105, but 164 showed up for our March event. We sold 42 tables, made a net profit of about $1,000 and updated 7 memberships. Thanks to all who helped out making this a very successful day for the club.

To test my theory on the importance of advertising, I'm thinking about resurrecting an activity that I started many years ago. At that time, I gathered as many contacts as I could from the "Upcoming Events" sections of newspapers and local "mailers" (it's called the Mailbag in my area) from throughout the state. Since they offered free advertising, I would request publication of a promotion of our swapmeets. Although many of these publications like to advertise only local community and county events, I prefaced my request with the fact that our attendees came from all over the state and the unique interest in radio collecting. In most cases, the request was honored.

The only drawback is to collect sources from all over the state. This is where you come in. At our next meeting, I would really appreciate if you could bring in a copy of your local newspaper or "mailer" so I can create a database of sources that I can use in an advertising campaign. It's important that you also include the page indicating the address where the request should be sent.
FOCUS ON NJ RADIO

THE TRADIO COMPANY OF ASBURY PARK

By Marv Beeferman

At our recent March swapmeet in Parsippany, I purchased the following advertising sign:

The sign caught my attention and peaked
my interest since I didn't realize that there was a history of television production in Asbury Park. When I pulled the thread, my research revealed a company that was involved in manufacturing coin-operated radios, coin-operated televisions, projection TV's and test equipment.

The coin-operated radio goes back to the rise of commercial radio in the 1920s. In a 1926 article in Radio News, something called a "Radio-Slot" was described with the unit showing up in some Philadelphia stores. It consisted of a five-tube TRF set and a timing mechanism which limited reception to five minutes. On the side of the unit was a table showing the times when stations were broadcasting and the necessary dial settings of the receiver. After four minutes, a red electric lamp would light warning the listener that if he wished to continue reception beyond another minute, another nickel was required.

The radio itself was encased in a tamper-proof cabinet which attached to hotel room walls with a special bracket that hid a lock when the radio was hung on it. Another feature of the radio was that its volume was set prior to installation so that top volume would not disturb guests in the next rooms.

It was advertised that the hotel would be left with 10 spare models in case of breakdowns. When five of the 10 spares were taken out of service due to failures, the hotel could mail a card to Tradio to pick up the inoperative radios and replenish the five sets.

It was also advertised that collectors would visit the hotels and, with a member of the hotel staff, spend a day making collections. Most of the radios would require a quarter for three hours, but a half-dollar was expected from "better-class" hotels. ("No traveling salesman will mind putting a quarter in a slot to hear a good radio play.") Calls were expected to be made twice a month, with the hotel receiving a share of the proceeds.

Tradio quickly found that it wasn't alone in the coin-operated field. Shortly after the introduction of the Tradio, Coralio of New York came out with a similar product. Within a few months, some 130 Eastern manufacturers were turning out coin-operated radios. Included among these competitors were Corco, Inc., Chicago; Hotel Radio Corporation, Detroit; Radio-Matic of America, Inc., Newark (built by GE) and Ra-o-Matic, Los Angeles.

As the coin-radio firms progressed, it was found that the most important type of location was that which had a good rate of transiency, whether they were hotels, motels or auto courts. This was based on the fact that guests who stayed a short time would be more apt to use a coin radio. Permanent guests ordinarily owned their own sets, or found it more economical to purchase one outright.

In Oct. 1947, Tradio announced full-scale production of "the world's smallest" coin-operated radio designed specifically for restaurant and tavern booth operation. Named the "Tradio-ette," it featured a specially designed squelch circuit to eliminate inter-station interference and a pre-set maximum volume control which restricted the program to the user's individual booth. It was also fitted with a slug rejecter as well as a timer that could vary play between 7-1/2 minutes to one hour. It was said that no outside antenna was required.

With the announcement of the Tradio-ette, Tradio also unveiled the completion of a new plant in Asbury Park that covered 20,000 square feet with a capacity of 15,000 sets per month. The building also housed the company's administrative offices as well as an experimental laboratory with an employee cafeteria adjacent to the factory.

Tradio also promoted its radios for use in beauty shops and hospitals. For beauty shops, women who might have to spend up to an hour under a dryer were considered good potential customers.

For hospitals, where reception was generally bad, the radio was considered a good way to fill up a patient's unoccupied hours where visiting time was restricted and the family was too poor to afford a second radio for the patient's use. In July, 1947, Tradio began production of a coin radio specifically designed for hospitals. It was a six-tube, all-aluminum table model that came with an under-the-pillow speaker for wards or semi-private rooms. Volume was pre-set and cost was 25 cents for a three-hour period.

Tradio eventually expanded their distribution to some 30 firms throughout the country and Hawaii. But based on a significant decrease in published advertising, it appears that the early 50s marked the end of the coin-operated radio era. A notation in the December 6, 1952 issue of The Billboard magazine noted that the Tradio was no longer coin-operated. In 1953, the Trad Television Corporation, successor to Tradio (more of this to follow) introduced a coin-operated clock.
radio but it appears that this was their last entry into the market. The clock and radio operated independently and were combined in a Formica-top night table. The coin mechanism was set to operate the radio for one hour for 25 cents. Its last ad appeared in The Billboard in January, 1954.

One can easily speculate why coin-operated radios came out of vogue. First, by the early fifties, radio production had ramped up following the war to a point where small, efficient models were abundant and inexpensive. Second, portable radios were already available, could be transported easily and transistor radios were on the horizon. Finally, it would seem somewhat not very "classy" for a guest to enter an establishment that charged one to listen to the radio.

Called TradioVision, the TV unit was intended to be sold to distributors on an equal basis with any other coin-operated machine, with play at 25 or 50 cents per half-hour. (With more television stations taking to the air with longer program schedules, rates were expected to be lowered.) The TV measured 16 X 8 X 9 and was to be produced with either a five or seven-inch tube (with the image reflected onto a mirror in the lid), 500-line definition and 20 tubes. A non-coin version was expected to sell for about $200.

In planning for the day when television sets would become less of a novelty, the company proposed to switch from timed coin-operation to a fixed monthly rental basis. This would involve payment through a coin meter (as has been the practice with such products as refrigerators). It was assumed that a large market would develop in home sales, but installations in hotels, cocktail lounges, restaurants and clubs was seen as a lucrative field.

In 1946, television stations were limited to New York, Chicago, Washington and Hollywood but large populations in these cities offered a substantial market. However, an expected broadening of the market to include all of the U.S. anticipated a much larger market.

It doesn't appear that demand for the individual coin-operated TV was as big as expected. The trend seemed to be leaning toward charging an additional fee to the price of a room if a TV was used. Therefore, Tradio decided not to immediately enter the field for individual hotel room sets. A few factors noted in The Billboard magazine included: 1) Not many TV programs were being broadcast on a regular basis. 2) The range of broadcasts was limited. 3) The cost of coin television was high.

However, as the years past, the company recognized that its future was in the upcoming TV market and their product line adapted accordingly with various types of large screen projection-type sets and combination entertainment sets. On February, 1949, Victor and George Trad formed the Trad Television Corporation to build and sell commercial TV sets. Shares were offered at 25 cents each. The TV's were to be manufactured at the Tradio plant in Asbury Park, New Jersey.

As noted in an article in The Billboard for November 16th, 1946 ("Coin Television Arrives"), "coin-operated television was unveiled for the first time at a press showing on November 7th. Tradio, Inc., headed by George and Victor Trad, staked the first claim in this field, which has created great postwar interest in the trade."
which could be used in conjunction with the wall box, and a console model 15-inch TV set with AM and FM radio and a record changer for use in hotel lobbies.

Tradiovision made three large projection TV models. The model 13 had a 3x4 foot screen, the model 14 had a 2x3 foot screen and the model 9 had its equipment in a rack and a standalone projection unit. The sets used identical projection systems based on the 5TP4 tube and optics developed by RCA. Trad also advertised a projection television featuring "a variable size picture that can be increased to theater screen dimensions" Its control unit could be completely divorced from the projector, making it possible to hook up several projector units to one master control.

Because of their large screen size, the picture on these sets was somewhat dim and Trad continually looked to improvements in order to achieve greater picture brightness. The sets were sold primarily to bars and clubs.

Trad also anticipated the use of large-screen TV’s in theaters. But programs specifically broadcast for theatre use were few and far between and this made many theater owners reluctant to buy equipment. In 1953, the FCC held hearings on exclusive channels for theater TV.

In the early 50s, Trad found that the coin-operated TV set might still have some viability, set off by a boom in motel competition. Rivals in the industry included Transvision, Tel-A-Vue, the Starret Television Corporation, National Telco, Ltd., the Hotel Radio Corporation, Bendix Television, the Telequip Radio Corporation and the Sheraton Television Corporation, among others. Transvision preferred a 17-inch console because "the 14-inch table model sets can be too easily removed by light-fingered motel guests who check out in the middle of the night."

In 1950, Trad acquired Wil-Ray Products Company of Marlboro, N.J., a manufacturer of television cabinets. The company also advertised a 12-1/2-inch coin-operated table model that sold for $199.50. ("Every part in this wonderful television unit is manufactured by Trad - not assembled.") Features listed included "a turret tuner with additional RF selectivity, a synchroguide for perfect picture lock, automatic gain control, high anode voltage and a 4-1/2 megacycle trap." In 1951, the company advertised a 17-inch console model with a blond wood Formica cabinet, an RCA-licensed chassis, high-fidelity sound and a built-in antenna. It was set to play 30 minutes for 25 cents (which was adjustable by the operator), held $20 in quarters and sold for $300.

As reported by Tube Lore author Ludwell Sibley, Trad Television made several direct-view sets that show up in Sams Photofact folders. They include the T-20A, T-20E, T-1720, C-2420, CD-2020 and T-1853.

By reviewing the Institute of Radio Engineers directories, Lud also found advertisements for military test equipment produced by Trad at the Asbury Park address from 1953 to 1959. Units included a VS-500 variable-frequency power generator, an SG-25/26 (military AN/URM-25D, 26B) HF-VHF signal generator, an SW-12 standing-wave indicator and other items.

Beyond 1959, no ads for Tradio, Trad Television or their test equipment offerings could be located. Further research into the history of the company would be required to determine if the company was no longer in business but, based on a lack of advertising, this could be assumed.

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