



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

October/November 2020

Volume 26 Issue 11



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 200 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.

With a little too much on my plate to produce an October issue, this month offers a combined October/November offering. Over 40 members attended our October Zoom meeting with a note of thanks going out to member Mike Molnar for his talk on the history of early FM. The 35 members who attended the September meeting were also glued to their screens with Al Klase's talk on "Understanding the All-American Five - The Evolution of an Engineering Masterpiece." I'm sure we're all appreciative of the talent and hard work contributed by those members that further our understanding of radio's historical breakthroughs.

With regard to upcoming events, our annual Winter Parsippany swapmeet and December Holiday Party have been cancelled due to obvious reasons. We'll keep you informed via the Communicator of the topics for upcoming meetings and any future club events and developments.

It appears that September's Kutztown swapmeet went off without a hitch; kudos go out to the Delaware Valley guys for getting us out of the house for some fresh air and providing opportunities to restore friendships in the antique radio community. As usual, member Bob Bennett posted the action on his RadioWild website in a 16 minute video. You can find it directly on YouTube or click on the following:

<https://youtu.be/lAWmQ1jXWKA>



MEETING NOTICE

The next NJARC meeting will take place on Friday, November 13th, at 7:30 P.M. The meeting will be conducted "on-line" via the video conferencing app Zoom. Information may be found at the club's website (<http://www.njarc.org>) with a link being sent out on the NJARC Communicator prior to the meeting. This month, we are asking you to get a little creative by setting up your "Zoom studio" in order to show off some interesting pieces in your collection during our "Radio Show & Tell" segment. Rather than displaying the actual items, you might want to consider using photos instead. A short story describing the significance and/or history of your selection(s) would be appreciated. Nothing new to talk about? Then how about participating in a discussion or perhaps demonstration of those "hints and kinks" that have simplified your repair and restoration experiences.

One acquisition of note was made by member Mike Molnar and captured by Richard Lee...a "superlong" superhet.



W9FKC's 40-meter suitcase portable.

For those members who have never been to the club's Radio Technology Museum at InfoAge, Al has provided a photo tour with recently added interpretive captions. The tour may be found at:

http://www.ar88.net/RTM_tour/

Finally, Al invites you to join him in celebrating 20 years of the Military Radio Collectors Association at:

<http://www.mrca.ar88.net/20%20Years%20of%20MRCA.pdf>

Technical Coordinator Al Klase recently acquired a portable 40-meter station from the Joe Cro estate. The station was the subject of a construction article by Myron "Mike" Hexter, W9FKC, in the December 1951 issue of QST magazine. Al has brought together a wealth of information relating to Mr. Hexter's life and the technical aspects of the radio, saving both from obscurity. You can find it all at skywaves.ar88.net and clicking on "HOMEBREW RADIOS."

I would like to take this opportunity to offer a well-deserved "thank you" to all those NJARC members who are keeping the club active and animated during a period when personal contact and club functions have taken a back seat to an unseen menace. Al Klase has hosted numerous Zoom meetings and radio nets (I think that's what you call them) dedicated to a host of topics and problem solutions. Dave Sica and Matt Reynolds have main-

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tained the integrity of our Zoom platform, ensuring that monthly meetings run smoothly and efficiently. Members who attend our meetings continue to offer their insights and comments and presenters host topics that are unique and informative. The "thank you" also applies to all those who keep the Communicator active with helpful tips for restorers, recommendations of engaging videos and web sites and commentary on subjects that range from Marconi to meteors. Finally, hats off to president Richard Lee who keeps the boat from listing too far to port or too far to starboard.

On the subject of suggested viewing and reading posted on the Communicator, there have been quite a few additions over the past months. If you're like me, we sometimes save these links to be enjoyed at a future date but never get back to them. It might be nice if they could be saved in a central location to be accessed at a later date (sounds like a project). For the time being, here are a few that you might have missed and might want to enjoy without having to sift through a bunch of old emails. (If the link doesn't work by clicking it, just paste it into your Google search bar.)

1. Ham Radio History/A Century of Amateur Radio:

<http://w2pa.net/HRH/>

2. Watch a radio being built at the Freed-Eisemann factory in 1929:

<https://youtu.be/tzZb6J1JAAM>

3. Building TV's at an RCA facility:

<https://www.youtube.com/watch?v=Awd-R-vVP6A>

4. Interesting and quirky film about Philips tube and radio manufacturing:

https://m.youtube.com/watch?v=fcfMj_cqufc

5. Promotional film by the Bakelite Corporation:

<https://youtu.be/umM21vF1c7Y>

6. A nice article on tubes of all sorts by Andrew Egan from Tedium:

<https://bit.ly/2qNq3OP>

7. Archaeology of early radio production:

<https://blog.oup.com/2018/09/early-radio-production-sound-historiography/>

8. The "Roots of Radio:"

<https://www.radioworld.com/columns-and-views/roots-of-radio>

9. WWII Radio operator vacuum tube training film:

<https://m.youtube.com/watch?v=j2fu3Hoi5rI>

10. Transistor history from 1953 with tube background:

<https://www.youtube.com/watch?v=V9xUQWo4vN0>

11. Short wave listening:

<http://www.ontheshortwaves.com/resources.html>

12. Antique Wireless Association (AWA) presentations and videos:

https://www.youtube.com/channel/UCX55peBhzeX1qps_VYXdLBA

While you're on the AWA site, you might want to investigate purchasing their AM transmitter circuit board. However, to get to the ordering page, you need to go down and click on "View 2 replies from Antique Wireless Museum and others" and then click on the link.

Upcoming Events

December 11 - Monthly meeting via Zoom (topic TBA)

January 8 - Monthly meeting (location and topic TBA)

THOSE FABULOUS INGRAHAM RADIO CABINETS

By
Marv Beeferman

The founder of the New Jersey Antique Radio Club, Tony Flanagan, loved to collect radios housed in Ingraham cabinets. These cabinets are sought after by collectors for their unique and superior design characteristics and quality, using curved or conical speaker grills and curved wood on tops and sides. Tony's interest led to the collection of Ingraham history that he obtained during a trip to Bristol, Connecticut and which he ordered from the University of Connecticut which holds the Ingraham Company archives. Upon his death, Tony's wife Kathleen graciously offered me the material and I thought it was about time to turn it into an article.



Tony was quite proud of his "Ingraham" radios.

It Started With Clocks

In 1828, a young, skilled "joiner" came to Bristol Connecticut, already the home of a thriving clock industry. With the demand for fine wooden clock cases so great, Elias Ingraham found immediate employment as a designer and cabinet maker. In 1831, the ambitious young man formed a partnership with William G. Bartholomew, bought a small shop, and started producing his own clock cases and other products.

During a trying period following the depression of 1837 (he lost his business, factory and home), Elias saw the logic in the idea that one company could manufacture both cases and movements and thus produce a complete clock. By 1841, the firm of Ray & Ingraham was producing complete 30-hour and 8-day pendulum clocks.



An 1889 Ingraham mantel clock.

Beginning in 1852, the company operated under several combinations of the Ingraham name until it was incorporated in 1884 under the name we now associate with its radio cabinets - The E. Ingraham Company. In the latter part of the nineteenth century, products of the company kept pace with popular demands. These included alarm clocks, non-jeweled pocket watches and 8-day alarms.

By 1932, the decreasing call for wood case clocks and the growing needs of the radio industry encouraged utilization of the company's woodworking skills for the production of radio cabinets with a daily production of between one and two thousand. A few years later, Ingraham became a leading producer of fine television cabinets. These products were manufactured in what was known as the "Case Shop" where the clock cases were produced. At a time when the depression was in full bloom, the considerable volume of radio cases being produced took the shop out of a period of "red ink" into a brief period of moderate profit. However, the attack on Pearl Harbor in 1941 brought an end to all radio cabinet production until after the war.

Up until the mid 50s, the Case Shop was primarily engaged in the production of radio and television cabinets since the market for wood-cased clocks had, for all practical purposes, disappeared. However, by 1955, a shift in customer demand from wood radio and television cabinets to cheaper cabinets made of plastic, steel and Masonite halted all woodworking operations and resulted in its closing. (With one exception, the E. Ingraham Company was the last of the New England concerns in the clock and watch industry to cease operation of its woodworking facilities.)

Watches were made until the 1960's. Also like other clock manufacturers, the Ingraham Company closed clock production during World War II to instead support the war effort by making fuses and timers. After World War II the Ingraham Company abandoned the old pendulum clocks in favor electric clocks and alarm clocks. During the Korean War, mechanical time fuses were produced. The company also maintained the production of watches, fuses and timers.

The Ingraham Company was the final name change in 1958. In 1967, the old company was sold to McGraw-Edison which continues to make electric clocks using the Ingraham trademark.

Who Was Ostellio Ciccarelli?

On June 24th, 1955, Ostellio Ciccarelli,

with the closure of the Ingraham Case Shop, was presented with a silver bowl in recognition of his 27 years of service with the company. Mr. Ciccarelli had a reputation as being one of the most skilled cabinet designers in New England with the ability to bend laminated veneers into all kinds of unusual shapes and forms. He designed a majority of the wood products that came out of the Ingraham Case Shop including numerous radio and TV cabinets. But the one of most important designs and the one which put Ingraham "on the map" was the cabinet for the Emerson Model 25A.

The 1932 Model 25A was the first radio cabinet that Ciccarelli designed for Emerson and it guaranteed full employment at the Case Shop at the height of the depression. The radio itself was the first compact with a built-in antenna, ran on AC or DC and was priced at only \$25. For Emerson, it also created production, sales and employment during a period when the economy was suffering. As reported in *The Bristol Press* for July, 1933: "The sensation of the radio industry during the past year, and to a considerable extent its activity, has been the "Baby" radio, also popularly termed the "Midget" and the "Peewee." In the fall of 1932, Ingraham was producing 1,200 cabinets per day.



Emerson Model 25A - the cabinet is identified as "R 277" in the Ingraham catalog.

Ingraham had to keep active in preventing infringers from merchandising copies of its designs, with some 24 manufacturers battling for a share of the trade. But with a superior quality of cabinet construction and finish, Emerson continued to depend on Ingraham for more innovative cabinets. Included was a cabinet where the radio chassis mounted from the bottom like the 1942 Model 440 and which was patented by Ciccarelli.

Mr. Ciccarelli was also awarded a patent for Emerson's "Miracle Tone Chamber." As described in ads for its 1937 introduction:

"Emerson's Miracle Tone Chamber is announced as a refinement that brings true acoustical reproduction of the human voice and musical instruments. It eliminates the old "muffling" cloth of the speaker and by means of a series of seasoned grooved louvre wood deflectors brings about a uniform distribution of sound waves on all frequencies. Thus the full melodic richness of all harmonics and overtones up and down the scale are enjoyed."

A typical example of Emerson's "Miracle Tone Chamber" is found in the Model 167 radio.



The Emerson Model 167.

According to Ciccarelli's son Dr. Armando W. Ciccarelli, his dad gave him an Emerson AC-DC "Duo-Tone" compact Model 106 in September 1935. The gift was for him to take to the University of Virginia for his sophomore year.

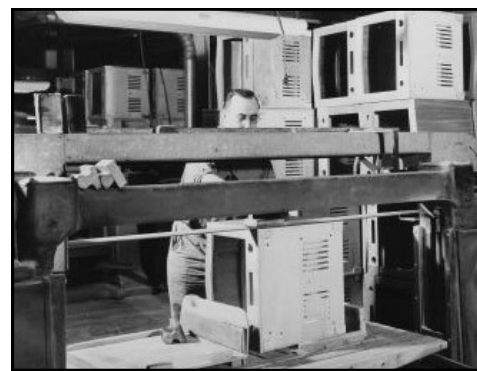


Emerson "Duo-Tone" Model 106

Mr. Ciccarelli also was able to match the artistic expectations of Count Alexis de Sakhnoffsky's 1939 scandalous "Mae West" radio, the Emerson BD197. The radio is featured in a major article in the Autumn 2020 (Vol. 60, #4) issue of the *AWA Journal*. Commenting on the radio being displayed at the AWA Muse-



Using a double spindle sander in the Ingraham Case Shop in 1940.



Sanding TV cabinets for Emerson in 1951. Typical was the Model 700.



V.P. Louis L. Burghoff receives an Emerson TV in an Ingraham cabinet at his retirement party in 1950.

The Mickey Mouse Cabinet

Among the Ingraham materials that Tony Flanagan had collected was a group of accounting sheets that listed the costs of building a particular radio cabinet - labor, materials, sales and administration. Also listed was the selling price and profit. The sheet on page 5 lists the numbers for 1000 units of the 1933 cabinet for Emerson's sought after "Mickey Mouse" radio. Notice that black and silver, lacewood/walnut overlay and walnut/birdseye maple cabinets are listed. Also note profits of \$100, \$140, and \$200 and sales prices of \$1.79, \$1.52 and \$2.20 respectively.



The Emerson Mickey Mouse radio. Today, it sells for well over \$1,000.

um, the author noted the following: "...a protective plastic window defends the radio set against curious onlookers, many of whom might not otherwise resist just one touch. With its splashy contours, the eponymous artifact appears to sport a lady's bra. Museum guides have learned to choose their words carefully, since there's no telling what sensibilities are at play in the visitor."

Identifying the Ingraham Cabinet

Ingraham cabinets are not only associated with Emerson radios - they have been found to enclose those manufactured by GE, Firestone, RCA, Zenith (although questioned by some collectors) and others. On the surface, cabinet characteristics are easily identified. Wood surfaces and sides exhibit complex curves fashioned from bent veneers that would be difficult



The Emerson "Mae West."

Mickey Mouse Radio Cabinets						
		Black + Silver	Honeywood Walnut Overlay	Walnut Burdette Maple		
Salaries						
Cutting + Veneering mill	39.00	33.00	63.50	53.00	72.00	60.00
Cabinet sand	104.00	130.00	120.00	150.00	220.00	225.00
Finishing	82.50	150.00	93.50	170.00	138.00	250.00
Packing	15.00	25.00	15.00	25.00	15.00	25.00
	277.10	398.00	342.10	480.00	518.50	724.00
Materials :-						
Timber + Veneer		56.50		238.50		267.40
Finishing material		50.00		65.00		70.00
mill supplies		20.00		45.00		50.00
Felt Pad		4.00		4.00		4.00
Sills		25.00		25.00		25.00
Cartons		60.00		60.00		60.00
Mouldings						100.00
		215.50		437.50		576.40
Bond :-		277.10		342.10		519.50
Factory Cost		890.60		1,259.60		1,819.90
Sales + admin 10%		89.06		125.00		182.00
Total Cost		979.66		1,384.60		2,001.90
Profit		100.00		140.00		200.00
S.P.		1,079.66		1,524.60		2,201.90

Building the Emerson Mickey Mouse Radio in 1933.

to duplicate without a good amount of woodworking skill and equipment. Ingrahams often have intricate carvings and difficult-to-duplicate inlays such as those on the Stradivarius (Model CH-256) shown below. However, there were cabi-



nets that were manufactured with a much less intricate design, especially those sold to companies other than Emerson.

Ingraham radios are also identified by a unique tab. Unfortunately, the company did not identify all their cabinets this way, especially the non-Emerson brands. One can only speculate as to the reason; perhaps it was a nod to Emerson that preserved the uniqueness of its product or perhaps the company did not want to be identified with cheaper cabinets made for other companies. Also, duplicated tabs have been showing up on many radios to increase their price. Therefore, offerings identified as "Ingrahams" should be evaluated with caution unless

the radio is well-established in the collector community.



The history of the Ingraham Company can be found in the Dudley S. Ingraham papers, the Edward Ingraham Papers and the E. Ingraham Company Records that are archived at the University of Connecticut. It is possible that the companies and associated radio model numbers that cabinets were manufactured for could be found here. But the papers are extensive and it is questionable if the research would be worth it.

For starters, as noted previously, Tony copied from the Ingraham archives approximately 50 accounting sheets between 1933 and 1934 like the one shown to the left. Many are identified with recognizable Emerson model numbers or names like "Mickey Mouse." Model numbers such as 28, 30, 32, 38, 39 and 250 were easily verified on the internet. However, some model numbers (16, 22, 25, 80, 86, 350, etc.) would require further research. Other models were only described without a model number such as "large world wide radio" or "swinging doors credenza." Also found were cabinets for Bosch, GE and Westinghouse (WR-20 thru WR-22).

As you can see, pulling up and verifying all the material associated with model numbers over a period of years would involve quite a bit of work. I'm not sure it would provide any great return to the collector community other than identifying some oddball Ingraham cabinets or perhaps saving someone some money on a misrepresented one. One thing I did discover was that Ingraham made some less complex curved cabinets like the one on the Westinghouse WR-21 below.



"WAVES" RELOCATES

By
Richard Lee

WAVES, the iconic New York antique store that features radios, phonographs, microphones, advertising and other nostalgic items favored by Big Apple millennials, has just reopened in the Bergen County town of Englewood, New Jersey. The reason? Like so many N.Y. businesses in the past 9 months, the pandemic and associated shutdowns have left the city not conducive to commerce, especially the antiques that WAVES featured.

Longtime NJARC member Bruce Mager, proprietor of WAVES, said it was time to move on. Over the years, Bruce has had a long history with WAVES...in the 1970's, first starting out in the Beechurst section of Queens, then migrating North to Nyack, N.Y., then graduating to an indoor mall on 13th Street in Manhattan, and then to another mall on 25th Street. In the early 1990's, Bruce "hit it big" moving to a multi-level store on 30th Street in Midtown. But high Manhattan rents and antique radios don't mix well, so WAVES consolidated, returning to the 25th Street Show Place Mall. Business was good - sales of radios, phonographs, signs, records, microphones was brisk including the leasing of these items for TV, film, and theater productions. But the virus put an end to it all!

Fortunately, WAVES lives again, in a street-level storefront in a quaint section of Englewood, at 490 Curry Street, not too far from Bruce's residence in Leonia, N.J. ...a five minute commute." Take a ride and visit the new WAVES location, say "Hello" and wish Bruce "Good Luck" in his new endeavor!

Phone: 212-273-9616, 201-394-8084
Email: wavesllc@gmail.com
Web: wavesradios.com



Bruce Mager at his new location.



THEORETICS DEMISTIFIED: SOUND REPRODUCTION

By
Fred Wawra

"Theoretics Demystified" is a column designed by Frederick Wawra (W2ABE) to give someone who has little or no knowledge of electronics or radio a starting point without all of the complications that often discourages a new person from delving further into the fascinating world of radio. This column is also geared toward radio club members who do not have an electronics background. Fred's columns run in the newsletter of the Fair Lawn Amateur Radio Club, *The Resonator*, and they may be accessed at www.FairLawnARC.org. Below is a sample edited by Technical Coordinator Al Klase and your editor and used with permission of the club:

One of the earliest methods of sound reproduction was the purely mechanical gramophone, or more properly the graphophone, or cylinder player. The first experimental ones used metal foil. You had to talk loudly into a diaphragm which was connected to a stylus which caused impressions of varying depth upon the surface of the foil. The foil was fashioned into a cylinder which was rotated by a crank or a clock type mechanism as the sound vibrations were impressed upon it in a spiral groove. The impressions were a physical record of the voice. The track of the vibrations were then again passed under the stylus and produced sound. (Vibrations caused the stylus to move and conversely the mov-

ing stylus caused the diaphragm to move causing sound to emanate.) The sound was very feeble and could only be played back a couple of times before the reproducing stylus would wear the tracks out.

The rotating cylinder was a way to present a timeline upon which information was recorded and played back. All recording systems use this principle - signals are impressed upon it as the timeline advances and then are retrieved in a reverse fashion. This is true whether the recording medium is a mechanically rotated cylinder, a mechanical disc (records as we know them), or a magnetic wire or tape with magnetic fluctuations impressed upon it. It can also be an optical disc with pits impressed upon it or a phase change dye that changes color (usually to darker) which is read by a laser just like the pits on a regularly pressed compact disc. Lastly, hard drives are in this category.

The electronic recording medium writes data to individual memory cells and has a timeline developed by an electronic clock that controls recording and playback. An example of this is a micro SD card with billions of storage points that can contain days worth of music.

When early sound recordings were made before the advent of tubes and amplification, very large horns were used to concentrate the sound recorded on wax cylinders. Horns were used on the playback machines to amplify the sound to the listener - think megaphones. As time went on, vacuum tubes were invented and sound was amplified by them and the horns were no longer required, but newer devices were invented to capture and reproduce sound - the microphone and the loud speaker. There are several types of microphones but they all convert sound vibrations into electrical copies of the sound.

At the other end of sound reproduction are reproducers, loudspeakers and headphones. They differ in size and level of output. Essentially, both take electrical impulses and use them in conjunction with a magnetic field to vibrate a cone, a diaphragm, or a steel plate, as in the case of old headphones, or a small steel armature which is then connected to a cone assembly which then amplifies the vibrations and produces sound. Today's modern speakers use a cylindrical voice coil suspended in a cylindrical magnetic field that is integrally connected to a cone and that cone is used to amplify the effect of the voice coil to produce sound. A variation of this is where the voice coil is acoustically coupled to a horn assembly as in a PA speaker.

AN AMAZING RECEIVER

By
Edmund Marriner

The stories associated with prisoner of war clandestine radios always make for good reading. You can find an excellent one researched by our Technical Coordinator Al Klase about a canteen radio operated in the Philippines at the following site: skywaves.ar88.net/SPY/spy.htm. Mr. Marriner's article was found in the February 1955 issue of "Popular Electronics"...Ed



Al Klase's reproduction of a prisoner of war canteen radio used in the Philippines.

One of the most remarkable radio receiving sets constructed during World War II was made by Lt. Herb Dixon, ZL2BO, while a prisoner of war at Shampshupo, Argyle Street prison camp, Hong Kong. He wanted to build a short-wave receiver to pick up BBC broadcasts. To accomplish this almost impossible Herculean task, Herb started collecting parts. The first real supply came from an old Austin car which provided wire, bolts, nuts and metal parts.

As the receiver progressed, it was kept hidden in a false garden bed of mint. Filter capacitors were made painstakingly from tinfoil taken from cigarette packages, cut to shape, impregnated with candle grease and sealed in small kerosene cans. The supply of cigarettes being limited, it took seven months of combined effort of the camp to fill the filter requirements.

The headphones took shape from cheese and sugar cans. These, together with the power transformer and filter choke, were finished in four months and were hidden away to await the rest of the parts. Construction of the radio was finally started on a copper sterilizing tank for the chassis. The resistors required were made from pencil leads of various lengths. The tuning capacitor was made from sheet

metal slipped on a four inch nail and fastened to a dial made from mechanical auto horn parts. In all this time, no one had been able to get any vacuum tubes. There were some tubes in the prison hospital, but how to obtain them was a problem. As a last resort, one of the prisoners went to the hospital and demanded to have his appendix removed. On the day he was released from the hospital, he managed to hide the tubes under the bandages.

Toward the end of 1943, the receiver was completed. The men sealed it in a kerosene can which had a false top tray containing cooked rice.

For about three months, the BBC came in loud and clear on 9.5 megacycles. To keep the receiver dried out, it was placed on top of the bake ovens in a flour bin for some hours. The Japanese discovered it when a guard accidentally knocked over the bin.

The receiver was kept by the Japanese as a museum piece and no one knows whatever became of it. The boys down under hope some day a clue will turn up which will give a finale for this remarkable receiver - constructed from junk in a Japanese Prison Camp.

Editor's Notes:

Herb Dixon's account of the particulars of the above story first appeared in the July, 1950 issue of *Break-in*, journal of the N.Z.A.R.T. (New Zealand Amateur Radio Transmitters) and was summarized in the 1950, #11 issue of the *RSGB Bulletin* (Radio Society of Great Britain). The following is additional information obtained from this summary:

- Dixon was a lieutenant in the R.N.Z.N.V.R. and was taken prisoner by the Japanese after the fall of Hong Kong.
- During his internment, he played a leading role in the construction and operation of three short-wave receivers in various prison camps on the island.
- Flux was made from pine-gum scraped from firewood after minute examination of every piece of wood brought into the camp. Solder was scrounged from the tag-boards of the defunct camp power equipment. Prisoners contributed 300 flashlight batteries which were strung together to provide high voltage.
- The car that was pressed into service for nuts and bolts was an Austin 7.
- The filter capacitors had a value of 16 mfd.
- Concealment of the sets was difficult as regular searches were carried out by the

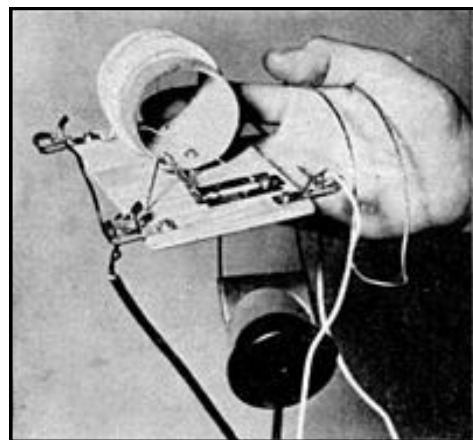
prison guards. In Shampshupo camp, receiver and batteries were kept in a watertight container in a lavatory cistern with water continuously trickling over it. At North Point, a hole was dug beneath one of the huts; to cover the noise of digging, it was arranged that the Canadian Brass Band should perform outside the building at the crucial moment. Afterwards, there were many friendly arguments as to who had worked harder: the band which played non-stop for more than an hour, or the pick and shovel squad inside the hut.

- On September 21, 1943, after a four-hour search, the receiver was discovered. Herb Dixon was one of the nine officers "interrogated" and later sentenced to 15 years of imprisonment, of which he served two under appalling conditions before his release at the end of the war.

- The N.Z.A.R.T is still anxious to trace the whereabouts of a set (if it still exists) that the Japanese treated as a museum piece.

- Herb Dixon was a member of the Hastings (England) Radio Club and was active in "the restoration of communications to Hawkes Bay (New Zealand)."

Sometimes, prisoner of war radios are confused with foxhole radios, although the "foxhole" design was also used by prisoners during WWII and Vietnam. Foxhole radios were built by soldiers for entertainment to listen to local radio stations. They were constructed because soldiers were not allowed to have ordinary vacuum tube radios - the regenerative and superheterodyne receivers of the time radiated radio waves which could give away their position to the enemy.



A typical foxhole radio using a safety razor blade as a detector, with the blade acting as a detector (like the crystal of a crystal set) and a wire, safety pin, or, later, a graphite pencil lead serving as the cat's whisker.

WAS KDKA AMERICA'S FIRST?

Edited By
Marv Beeferman

In the September *Broadcaster*, we featured an article titled "America's First Broadcast Station? WWJ Celebrates 100 Years" that was also referenced in *Radio World*. Since then, the question of "first" has come under quite a bit of scrutiny. The following is a letter to the editor by John Schneider published October 12 who offers his opinion on the subject. John is a contributor to *Radio World* who writes frequently about radio history and who has graciously allowed one of his previous articles to be published in the *Broadcaster*.

Dear Editor:

In announcing a "#Radio100" celebration, the National Association of Broadcasters has chosen to declare Nov. 2 as the centennial of the day that radio was suddenly and magically born into this world. In doing so it is recognizing KDKA as the country's pioneer station. But many early experimenters and broadcasters also contributed to the creation of radio broadcasting, and NAB does them a disservice by recognizing only KDKA as the "first" broadcaster.

In fact, WWJ in Detroit, KNX in Los Angeles and KJR in Seattle all trace their beginnings to dates that were earlier than KDKA, as I have written in the pages of *Radio World*; and many other stations that no longer exist also predated KDKA.

The first commercial broadcasting license did not go to KDKA; that honor went to WBZ in Boston in 1921. KDKA was licensed as a "Commercial Land Station," a category that had existed for many years before, and on the night of its Nov. 2 election returns it was using the call sign 8ZZ. Licensing of broadcasting was not created until the art was well under way, and so it should not be used as a basis to single out one broadcaster.

In fact, in 1942, the NAB proclaimed that it was officially recognizing WWJ as being the true "first" broadcaster in the country. This announcement created a firestorm that resulted in Westinghouse

Broadcasting withdrawing its NAB membership for eight years. Finally, in 1947, Kenneth Baker of the NAB stated that the organization was unable to take a position on which broadcaster was first.

It is accurate and appropriate to claim 1920 as the year that broadcasting was begun in the United States, and the NAB campaign is a wonderful celebration of that fact. But it is not appropriate for the NAB, which represents all broadcasters, to claim that just one date or one station deserves that honor. Many pioneers worked in parallel to develop what became radio broadcasting, and none of them deserves preferential treatment; they should all be considered "first."

James O'Neal is former technology editor of *TV Technology* and also a frequent *Radio World* contributor. He worked for more than 30 years on the television side of the Voice of America. In an opinion piece from September 22, James said the following:

I would certainly agree with John on all points. It's indeed a fool's paradise to think that claims to priority in just about every endeavor of any consequence can ever be adjudicated to everyone's satisfaction. I certainly considered this and have said as much in one of my stories.

I also singled out several other close contenders (including Marconi's MZX in Chelmsford, U.K., which, while significant, doesn't get a lot of mention) to try to illustrate the futility of establishing a really clear-cut winner for this position in the history books.

I have pointed out that KDKA seemed to possess a number of qualifications not held by others, including operation on a license/frequency for commercial broadcasting, operating (from Nov. 2) on a regular and continuous basis, emitting programming directed to the general public, and publicly advertising to offering of programming in advance of the Nov. 2 airdate.

While I realize that this does not really answer your question, I think it's important background to consider in framing some sort of unified phrase to describe what KDKA accomplished on Nov. 2, 1920. Possibly the best compromise would be something like:

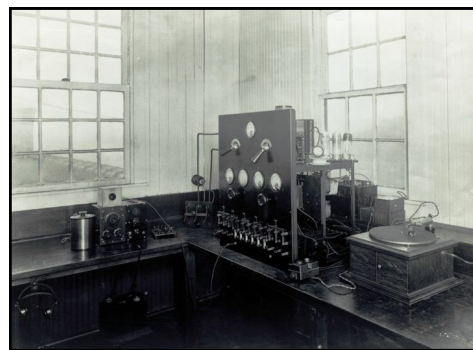
"Nov. 2, 1920 is recognized as a significant date in radio's history and evolution, as most historians agree that it marks the beginning of regular and continuing entertainment and news broadcasts directed exclusively to the general

public. Pittsburgh's KDKA, which has now been operating continuously for 100 years, is recognized for launching broadcasting as we know today that evening, by airing continuing coverage of presidential election returns."

John Schneider disagreed with a few of James' points but he said "I think the statement that James suggests is entirely accurate and appropriate." He states:

I disagree with James on a few points; KDKA was not licensed or assigned to a frequency for "commercial broadcasting." They were initially given a Commercial Land station license, a classification that had existed for many years and applied to point-to-point communication. There was no frequency designated for broadcasting until 1921, when WBZ was given 360 meters (at the request of Westinghouse). Also, WWJ was broadcasting to the general public, and advertising themselves in the pages of the *Detroit News*, three months before KDKA

Disregarding what side you take on the KDKA dispute, I'm sure you'll find it interesting to read James O'Neal's article that appeared in the October 26th *Radio World* "Constructing the first 'Real' Radio Station." (Just Google the title and it will show right up.) In it, James digs into the equipment that was used for KDKA's "big broadcast" of November 2, 1920. With the aid of detailed photographs; magazine articles about the station and its progenitor Frank Conrad; and a published account by an eye/ear-witness to what transpired, James pieces together many of the missing details of the physical layout of the station.



A photo of KDKA's broadcast center provided in the O'Neal article. It offers some detail about the in-house manufactured 100-watt transmitter used for the Nov. 2, 1920 broadcast. O'Neal states that the six-volt, lead-acid car battery behind the rig likely provided tube filament voltage.