

Summer - Edition #6

2020 Virus Edition #6

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This is the sixth issue of a fun history hobby e-letter. Share it and pass it around. It's free. It's for fun.

The **Bald Letter** is the work of Dick Karman who is solely responsible for its content. He would welcome your comments, complaints and corrections. <u>dick@karmans.net</u>

While we stay at home a little longer let's read and enjoy memories of radio. Special thanks to Richard Howard, Art Redman, the Estate of Barrie Gilbert, the Estate of Joseph H. Hallock, members of the California Historic

Radio Society, The Colorado Radio Collectors, The New England Vintage Electronics Club, and The Puget Sound Antique Radio Society.

Since March, 2020 the *Bald Letter* has been distributed, for free, approximately every three weeks, to collector's clubs and associations who enjoy vintage radio. If you wish to make a donation, make it to your local vintage radio collector's club.

Be advised- in the future the *Bald Letter* will be distributed on the 15th day of each month, Lord willing. [DK]



FADA RADIO Compiled by Dick Karman

A classic of Art Deco industrial design, FADA radios were the creation of Frank A. D'Andrea who began the company in 1920 in Long Island City, New York. Originally known by the makers name as the F. A. D'Andrea Co. and then by the initials of the founder, FADA at first made only a variety of radio components such as coils, condensers, etc. which were in great demand as the radio boom of the twenties began.

D'Adrea's early associations with Marconi and Lee DeForest placed him in a unique position. He knew the theory and the need for quality components. His initial radios were large wooden boxes with bakelite front panels like so many of the day. He soon moved beyond these and began assembling complete radios (in 1923) to his own designs. Frank D'Andrea fancied himself an inventor, not a businessman. He also had a knack of foreseeing market trends. He quickly discontinued making crystal detectors (one of his best-selling items) and started making radios with the Neutrodyne circuit when he heard of the Hazeltine patent. He also established FADA of Canada and FADA of England, marketing the Neutrodyne in other countries with the US patent. His self-proclaimed goal was to "get rich."

This goal and his lack of labor relations brought about a great deal of strife with his 600 employee, his management and his executive staff. In 1926, his employees went on strike. In 1927 Lewis Clement, his chief engineer defected to Crosley Radio Company. Even Chief Operating Officer Dick Klein left.

Through it all D'Andrea kept FADA profitable. In 1928 he was one of the top five radio manufacturer in the U.S. Those were the most prosperous years for radio manufacturers.

In 1932 FADA was sold to a group of



FADA "Bullet" 1000 from the Rick Walton Collection

Boston investors and Frank A D'Andrea accomplished his goal. He made money. But by then, the depression had the economy in a decline and by 1934 the company had filed for bankruptcy.

A group of New York investors brought FADA out of bankruptcy. They used modern materials which include colored bakelite for the radio cabinets. It proved successful. By 1940 they were streamlined Art Deco designs and extremely popular as an everyday objects, but so different from the boxes that enclosed radios of that day, yet they were still affordable.

During WWII like all radio manufacturers, the plants were used to make electronic components for the military. In 1946, FADA continued to produce the original designs but with the more modern plastic molds developed during the war, complete with distinctive metal decorations. Even these post-war sets had the Art Deco appeal and were quite popular. Nevertheless, the company went into a decline and by 1954, it permanently suspended operations.



FADA 1000 Blue with Butterscotch trim from the Rich Lapis Collection (2008)

Story Sources:

<u>http://www.collectics.com/education_fada.html</u> <u>http://classicradiogallery.com/fada_history.html</u> <u>www.wshu.org/post/frank-andrea-immigrants-tale-success-long-islandconnection#stream/0</u>.

POLICE RADIO CAR

A look back nearly 100 years by Dick Karman



In 1923, magazine writer Armstrong Perry toured Europe and wrote about radio installations in faraway places. While in England he visited Scotland Yard to report on their use of radio in police vehicles. The article appeared in the January 1924 issue of *Radio News*.

The magazine took several liberties with what may actually have been witnessed by Mr. Perry. One obvious one is the use of firearms in the illustration above. The constabulary in England in the 1920s (and since) did not carry side arms.

That the author was paid by the word is evident in that the entire first page of the article explained how jelled acid was used in the rechargeable lantern batteries that the "bobbies" carried so that they would not spill while being used in any position. And

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the glass battery jar allowed the maintenance man to inspect and replace plates that needed attention. The tie-in was that the man who championed the rechargeable lanterns was also the man who constructed and maintained the first mobile radios. The credit was given to Mr. G. A. H. Wootton.

When Armstrong Perry describes the radio gear, it was somewhat tongue-in-cheek:

"The center of interest, of course, is the radio outfit. There is a six-valve receiver, which furnishes radio and audio-frequency amplification enough to make the incoming voices audible above any disturbance that even a mob riot might create. The transmitter uses electron tubes also and can make itself heard at a distance of 30 miles by anyone except the *London County Council*, a governing body that is said to be stone deaf to anything invented since the Elizabethan Era. This is as far as any point in London County can get from any other point."



The largest event used to test the maneuverability and communication dexterity of the Police Radio Car in 1923 was Derby Day: that day when the entire country tried to see the Epsom Derby (Epsom Downs horse race). The ability to pass through or even circumvent the crowds was deemed a herculean test for the police radio car. Part of the test was to see if radio signals could overcome the many and varied RF interferences.

"The Marconi Company interested itself in the problems of road traffic control by radio some time before last year's Derby Receivers tested in moving automobiles, and in airplanes, showed a strong tendency to bring in signals from magnetos, power lines, violet ray beautifiers and train motors with intensity equal to that of voices from radio stations. The company gives Mr. Wootton credit for having provided a convincing demonstration of the practicability of a system they tried only experimentally."



"The auto that gave such good service this year carries a specially designed aerial on a frame that is lowered forward or backward by means of a lever. The change in the height of the aerial in passing under bridges or trees did not interfere with the transmission or reception of messages. "The four wagons that are being built will each have four telescoping masts, one on each corner, raised and lowered together by geared wheels. These masts, when fully extended, will raise the aerial higher than the frame now in use, giving greater radiation, longer range and increased efficiency in both transmitting and receiving

"The new cars will be full of improvements and new features. The top will be high enough to permit a fullsized London Bobby to stand straight. In the rear there will be an observation post, slightly elevated, for the man who manipulates the aerial. At his hand will be one of those handles that a steamship pilot pushes, with a dial showing where to set it for "Full speed ahead," "Half speed ahead," "Half speed astern," and "Stop for tea." This will connect with a similar dial and indicator on the dash, just like the one in the steamer's engine room, so that observer and chauffeur will work in harmony.

"To take care of any overhanging branches too low for the aerial to dodge, there will be a long hook-shaped knife. The radio operator will occupy a seat in the front of the enclosed body and through a hinged window, normally closed by a spring; he will be able to communicate with the men on the driver's seat. There will be tables that let down from the sides. Food, water and first aid materials will be stowed in convenient places. Once in the Derby Day stream of traffic, the police patrol must stay in. It is either a hot and dusty 24-hour day or a wet and muddy one. But those who ride in Mr. Wootton's wagon will be comfortable whatever the weather may do. Judging from the long, clean record of Scotland Yard, it is safe to predict that they will also be

courteous and efficient."



These excerpts represent less than 20% of the original article. The entire account can be read in **Radio News** January 1924.

QUARANTINE SHOW AND TELL

From Dick Howard as told to Dick Karman

Your editor has known Dick Howard for years. These uncertain times have made us even better friends. Dick says he doesn't get around much lately, but his love for faith, family and friends has carried him through. He has also invested some of his spare time on an old hobby of model railroading.

Dick was one of the Charter Members of the Portland club and has stayed active for 46 years. Through coincidence and happenstance he met and got to know Joe Hallock, Dr. Heacock and others who may very well meet



the criteria of "Marconi's Cronies." In his own very organized manner he has maintained the Hallock archive of paperwork and memorabilia (and shared it with your editor).

His son has followed in his footsteps and has produced some very thoroughly researched and well-written pieces of radio history which have been published by the AWA, and other vintage radio publications.

Dick's "show and tell" has been displayed before at many meetings, and in museums. It is a 500 watt transmitter built for the Portland Police in 1934 by the firm of Hallock and Watson. It is the first major transmitter that Portland used. There's additional history about police radio on page 10. Halowat Radios have been found in collections from sea to shining sea, but for those collectors in Oregon they hold a special

attraction. Joe Hallock and Clif Watson were local radio heroes.

Following graduation from Oregon State University Watson worked



as a radio operator on coastal steamers between Seattle and Alaska. In 1915, he joined Joe Hallock installing radio transmitters for Montana Power and in 1916 did similar work for Northwestern Electric Company.

When the U.S. entered World War I, Hallock, joined the Navy and was placed in charge of the Navy "arc" station in Bordeaux, France, then billed as the largest broadcasting station in the world. Clif Watson was placed in charge of the U.S. Navel Radio Laboratory at Mare Island, CA. Together again after the war, Hallock and Watson spent most of 1920 installing transmitters for and in the Republic of China.

But in 1921 and 1922 they were back in Portland building radios and building transmitters. A Halowat radio is a Portland Radio. And the pride of owning a Hallock and Watson transmitter is sure to show. Only five or six of them were built. The 'sister' of the one shown was used by KOIN radio into early 1939, and was in a storage building which was lost by fire. Dick Howard still has a copy of the construction drawings of both the KGPP and the KOIN transmitters.

To enjoy the rest of the Hallock and Watson story be sure to check out the history of Halowat radios, researched and recorded by Art Redman at:

www.antiqueradio.com/Jun06_Redman_HallockWatson.html

(Thanks also to Ron Kramer for his book Pioneer Mikes.)

PORTLAND POLICE RADIO - 1941

By Dick Karman (from the Richard Howard archive)

As mentioned elsewhere, first one-way, and later two-way radio communication came to Portland, Oregon in the mid 1930s. But prior to 1940 the dispatch desk was literally stuck in a large closet in the Detective Division on the third floor of the headquarters building. It had a single telephone line and an intercom system to three other floors of the building.

The original status markers were color-coded golf-Tee type pegs stuck into a peg-board. And to know the duration of the call, a clip-board log was kept with notes and assignments. No doubt it was a vast improvement over the "call box" system where officers would notice a light on a telephone post, and call in to get an assignment, but radio still had its bugs.

In the modernization of police communications (circa 1940) the city of Portland, Oregon decided it was going to have the most modern facility available. Air conditioning, sound proofing, and direct communication with all police facilities were only a few of the amenities.

The fifth floor area of the police headquarters building was referred as the penthouse. More than half of that floor was already taken by the jail. Only a 20' by 30' room remained. It was divided, with half being made into a two position telephone switchboard and supervisory console, the second a three position, circular, radio dispatch console. The two halves of the space were

divided by a soundproof glass window.

This installation was the first console built specifically for radio dispatch. The console was circular with three positions 120 degrees apart. The



circular format allowed each dispatcher to maintain eye contact with each of the other dispatchers. Microphones and telephone switching were built into the console panels along with speakers, volume controls and vehicle status lamps.

Every effort was made to provide equipment reliability. The highest quality parts were used. The positions were duplicated with either position able to control all functions needed for dispatch. The design was such that the failure of any single part could not affect the other console's operation.

A dedicated intercom was installed between the switchboards and the dispatchers so operators could alert the dispatchers to emergency calls. Two city-wide intercom networks were established on phone company leased lines to provide the dispatch consoles with direct communications to the various police divisions and also to provide two way radio monitor capabilities. The dispatcher's intercoms were built into the consoles. These networks were split with the desk sergeants on one net and the other divisions on the other. Both nets had monitoring facilities. Bridging amplifiers on the broadcast and receiver lines fed both dispatch and car signals to all intercoms on the two nets thus allowing all of these divisions to keep track of their officers.

Since Portland was the only city in Oregon with a Police Radio system, several surrounding communities asked if they could obtain service from KGPP. These agencies would give their urgent calls to Portland for dispatch and Portland would relay the calls. There was never any charge made to these users. All they had to do was purchase receivers for their vehicles.

Portland handled calls for Vancouver, Camas, Milwaulkie, Oregon City, Beaverton and the Multnomah County Sheriff. In addition the Police provided emergency dispatch of Water Bureau Service trucks and Public Works street repair vehicles. A radio receiver was installed at the Bull Run Dam to provide emergency flow instructions to the Dam operator in the event that the telephone line was inoperative.

That modern system lasted through the war years. In 1946 new technology and new equipment moved in. Smaller agencies set up their own systems and the world changed.



RECAPPING YOUR OLD RADIO

Excerpted by Dick Karman

I am not a restoration expert, nor even an accomplished novice. So let me repeat this wise advice from those who know. The capacitors in a vintage radio are much more likely to cause grief than most other elements or components.

This is wisdom from Antiqueradio.org: You need to consider which the type of capacitor you need to replace. Electrolytic capacitors are the first ones to target. They are the larger ones (and have larger values). You should replace all of them first.

Then go to the non-Electrolytic capacitors which come in various types. The ones known as "paper" are very unreliable over time and should be replaced even if they check out good.

A prevalent category of paper capacitor is "molded"- they need to be replaced. The round molded (paper) caps often have a sleek plastic tube around them and look good, but don't let that fool you. (Some purists hide the new cap in the old tube.)

Another type of molded paper capacitor is flat. These are in a plastic shell, with colored dots to show the value and can look perfectly healthy, but are just as unreliable as any other paper cap.

The reliable forms of capacitors are the Ceramic capacitors. They are round and flat. They seldom need to be replaced unless you find physical damage or a noticeable measurement error.

That is also the case with Mica capacitors. They are flat, square, thick and their value is displayed with colored dots. Do *not* replace them without good reason.

You can read more and see pictures at Phil's Old Radios: https://antiqueradio.org/recap.htm



EDITORIALLY SPEAKING-

From Editor Dick Karman

Your editor does not report "news." But this requires mentioning. Barrie Gilbert was born in England. His father was killed in the bombing raids in 1941. By age 9 he was playing with electronic circuits. In his teen years he saw his first TEK oscilloscope. When trying to build a "better one" Tektronics hired him. His accomplishments are beyond this writer's *ken*.

*Explaining the reach of Gilbert's inventions, Ray Stata, chairman and co-founder of Analog Devices [2009] said: "One of the circuit cells that bears his name has for decades been used in all forms of communication systems, including ordinary radios, cell phones, microwave TV links, data modems, satellite communications and even radio telescopes."

Since the invention of the 'Gilbert cell' in 1967 – also known as the 'Gilbert mixer'- it has become ubiquitous in radio transmitters and receivers, and its compact nature is credited with opening the door to the integration of radios in monolithic form, leading to the proliferation of communications devices. A related circuit, known as the Gilbert multiplier, is said to have revolutionized the implementation of this mathematical analog function.

"The class of Gilbert cells comprises a large variety of topologies, all of which invoke the now famous translinear principle," said Stata. "This fundamental theory in circuit design was formalized, refined and popularized by Barrie. Today, translinear circuits in both the original bipolar form, as well as CMOS embodiments, are found throughout analog design."

He also maintained a museum-class collection of electronic devices that date back to early radio; always had time to talk, and never stopped thinking. Barrie Gilbert, was one of the most famous analog circuit designers in the world. Barrie Gilbert of Beaverton, OR, died of a head injury January 30, 2020

TERRE HAUTE'S NEW POLICE RADIO

From the Police Blotter, Aug 9, 1935

The arrest of John F. Cummins, a cousin of the manager of Radio Station WBOW for a traffic violation in Terre Haute, Indiana., (which recently achieved world-wide fame through a general strike) was followed by termination of police use of the station's facilities for contact with squad cars.

The step taken by the radio station, however, will not render the city



without radio police service for a very long period. Following the discontinuance of the radio service, the Terre Haute Police announced that a short wave radio station already is under construction at the City Hall and will be in operation in the near future.

The new radio system is a gift to the city from a number of public-spirited citizens. The project has been discussed for several years but the financial condition of the city would not permit the expenditure. The use of WBOW had not proven

entirely satisfactory for several reasons, it was said, among them, that it was not available twentyfour hours per day and also permitted anyone with an ordinary auto radio to pick up police broadcasts.

Included in the new RCA high-frequency outfit, besides the transmitter and receiver,



will be two "two-way" police patrol cars and six regular patrol cars equipped only with receiving sets.

The break between the police department and Station WBOV came after Cummins, 26 years old from Indianapolis, was taken into the Terre Haute City Court Wednesday morning. Cummins was fined \$2 and costs (the costs were later suspended) on his plea of guilty to charges of violating the city traffic ordinances. Cummins had been arrested Tuesday evening by Patrolmen Carpenter and Cavanaugh after he had parked his automobile in a safety zone downtown.

Later Wednesday the police department was notified by William W. Behrman, manager of the local radio station and reported to be a cousin of the traffic law offender, that service for the police through the local station had been suspended. Although Chief of Police Lewis A. Wheeler had not been formally notified of the "cut-off", desk officers said the police microphone had been removed.



[This photo, courtesy of the Indiana Historical Society, shows the new short wave police radio installation in Terre Haute City Hall being toured by the Vigo County safety committee in 1935.]

THE READERS WRITE

The bald Letter is a labor of love for those of us who love old radio and vintage communications. Your editor saw a critical need back in March 2020, when the China virus threatened to close us off from each other and from sources of entertainment and information about our hobby. The publication was not commissioned or sponsored by any one organization or individual (although it was offered to some). It is just your editor's way of saying "Let's keep in touch and enjoy history." (The following comments were unsolicited.)

J just finished reading [Bald Letter] no.5.. really enjoyed it. I know how much work goes into a newsletter.. I was editor of The Horn of Plenty [PSARA] for several years.

The controlled carrier article brought back some memories.. in the 1940's the Mennonite Church in my home town put a controlled carrier system in to carry their church services for the old people who couldn't get to church in the winter and later in the summer.

Normally they were not allowed to have a radio or listen to one but the church authorities ruled that the older people could have a radio if it was only used to listen to the Sunday sermons.

Later friend of mine and I decided to put a 2 meter radio system on the power lines (different city) we built up the systemturned it on and most of the town went dark ... What we didn't know was the power company was using controlled carrier to their sub stations. I don't know what frequency they were using but our guess was they were bootlegging 2 meters for the purpose. At the time 2 meters wasn't used very much by hams... 1951 or so.

L.H. - Washington

enjoyed your latest literary effort immensely. Your insights on Carlton E. Morse were/are very amusing, recalling "One Man's Family" from the forties (Fannie, Fannie, Fannie...) R H - Portland



lways something to learn from the Bald Letter! B.B. - Oregon

just caught your latest Bald Letter via NEVEC. Your story on page 5 ("carrier current telephony systems") really took me back.

When I was in the army, my MOS was "294 - Carrier Equipment Repairman" and the army taught me to repair those multiplexed telephone systems. They had a model AN/TCC-4 which put 4 channels of telephone over a pair of wires (Two pair for duplex operation) by multiplexing each channel with 4kc, 8,kc, 12kc, and 16kc... that would be for smaller operations like at the company level...

Then they had the AN/TCC-7 which put 12 channels of telephone over a (two) pair of wires for higher levels like Brigade or Corps. These were 'Long-Line systems that could stretch almost 1000 miles.

Furthermore, each channel of telephone could have had a teletype terminal connected to it which could put 16 TTY's over two pair of wires (for duplex) by frequency-shift-multiplexing. - So each of those 12 channels handling 16 TTY's made a total of 192 TTY's over two pair of wires...I thought that was pretty amazing at the time.

It was all done by the multiplexing described in your Bald Letter [article]. Thank you for bringing back some pleasant memories.

J.S. - New England

T he Bald Letter . . . It is hands down the best newsletter I have read from any radio club. You publish an excellent newsletter and I eagerly read it cover to cover each month. I thank you for what must be an enormous amount of time and energy spent doing it.

S.G. – Seattle

I 'm one of your readers. Thanks very much for your fine newsletter. I receive it as a forward through the PSARA. We have newsletters 2 through 5. Was there a number 1? L.C. – Washington

All of the back issue of the *Bald Letter* are available at www.Relivingradio.com – free – help yourself. Pass it around!

THE JOSEPH HALLOCK ARCHIVES

Summarized by Dick Karman

The ephemera from your editor's life will most probably end up being deleted from a solid state hard drive about 2 months after he has come face-to-face with his maker. But this was not the case with the radio pioneers of 100 years ago.

Dick Howard (see page 8) years ago showed an interest in the history of a radio manufacturer from the 1920s. As a result folks who found hardware manufactured by Clifton Watson and Joseph Hallock began offering it to Dick. One thing led to another and Dick Howard now likely holds the definitive collection of Hallock documentation of any vintage collector, including Hallock's Ham vehicle license W7YA.

Much of documentation centers around the transmitter (see page 8) that was miraculously saved from the scrap metal merchant by a fellow ham operator before Dick even had much of a radio collection. From there his collection grew with Halowat radios, documentation of the transmitter, history of the police radio system where the transmitter was used, even history of the radio operators and technicians, and the history of Mr. Hallock himself.

Your editor has read most of this archive and could fill pages with the "battle" about where to locate the first Portland police radio tower (1932). Or anecdotes about how "smuggling" the original transmitter into a hospital room (1970s) might have actually been the encouragement to add a few more years of life to the fading radio pioneer. Just recently your editor learned that more "lost" paperwork from that police radio system has surfaced to add to the archive.

Last note- in the archive there is a full-page story from the November 5, 1933 Oregonian newspaper depicting in pulppaperback terms the speed and efficiency of the new radio dispatch system installed (for only a few months) in Portland. Far too large to include here (1,600 words and dramatically posed photographs) it was telling readers that "real life" could compete with radio dramas like "*Bring 'em Back Alive*" and "*Police Headquarters*" which were on the air that year.

THE OTHER SIDE OF THE MIC

By Dick Karman

This column often features the memories, magic and music that came out of the old radios that we restore and love. Your editor has shared sources for old music, old shows, and new ways to get old sounds into old radios. This will be the last for this column for a while. THE OTHER SIDE OF THE MIC is going back to the recording and editing studio. Other duties call.

Your editor is cutting back on the time invested in the *Bald Letter* so he can spend some time serving another portion of the community. Since my "The Way Radio Was" website closed last year www.oldradioprograms.us has served the public well. It

offers hundreds of old radio shows that are free to download. And old radio buffs are eagerly awaiting the new website for one of the oldest OTR clubs in America: SPERDVAC. Search it.



That's it from the other side of the mic.

CHANGES ON THE HORIZON

The *Bald Letter* will continue to be produced for the benefit of the vintage radio collecting community (and anyone else who enjoys radio history), but it will be distributed on a 30 day schedule instead of a 21 day rotation. The original time table was in response to the sudden "stay-at-home" orders. Now that we have, presumably, gotten into a routine and will "survive" the duration of this pandemic, the schedule will be dialed back.

I know some editors have enjoyed the *Bald Letter* method of purloining history as "good" reading and they will be using it as a way to provide content and entertainment for their members.

The original plan was to take a hiatus after six or seven issues. (I have been asked to return to some of my pre-pandemic pursuits and this was a good excuse to cease.) After communication with readers, and leaders, and friends, the popular vote has been to continue the publication in some form. I'm both flattered and humbled. So thank you for your encouragement. We'll keep it going for a while longer, and see you next month.