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# OLD RADIO

## Yardley Beers, W0JF

By Dorothy Sands Beers

Yardley Beers, W0JF, sits in his wheelchair facing the table that holds his key, earphones and transmitter. Still active at age 91, he has vivid memories of the old days of ham radio.

Back in 1917, at age 4, Yardley was fascinated with railroads and electricity. Later, at the age of 9, while at Camp Choconut in Pennsylvania near Binghamton, New York, he was introduced to ham radio, which became his main interest.

Atherton Noyes, a counselor, taught the Morse code there. At first, when listening to transmissions, Yardley could identify only occasional letters. Persisting, he gradually improved and at the end of the summer won the camp's award for efficiency with the code.

Returning home to Trenton, New Jersey, to build a crystal set, he calculated that he needed about 217 feet of number 22 enamel wire around and around an oatmeal box. This fine wire would be hooked to a device known as a "cat's whisker." Many years later during World War II, his knowledge of the cat's whisker was useful in building crystal detectors for radar, then very secret work. His original oatmeal box radio still works today.

At age 13, Yardley went off to the Phillips Academy in Andover, Massachusetts. Students were not allowed to have any electrical equipment in their rooms, but Yardley got around this problem. By using a slightly altered receiver that he saw pictured in *QST* he turned an innocent looking lunchbox into a receiver and dangled an antenna out the window. No school inspector realized it was a radio.

Yardley joined the school's radio club, which met in a small shack with a wood

stove at the edge of the campus. Then one day he took the train to Boston and passed the code test and won a license. Soon afterward he received his first call letters, W3AWH. [The Phillips Academy club, W1SW, has a long and storied history. It claims to be the first school station on the air, and is the oldest (continuously licensed) club station in the country. Some say Harvard's station is older, but W1SW was on the air first!—Ed.]

From that time on, his studies took him to Yale, where he became a charter member of their radio club. Later at Princeton he received a PhD that involved measuring the charge of the electron. While there he also met Einstein.

During the years before World War II, while he was an instructor at New York University and then at Smith College, he returned to his Trenton, New Jersey, home while on vacations, to the radio shack in his bedroom. From this location he made hundreds of contacts including one with Anton Hapsburg, the Archduke of Austria. He would visit all the local shops that now sold radio parts, and his equipment became more sophisticated. During this time he became a charter member of the Delaware Valley Radio Association.

In 1932 he visited with hams on the first of many trips to Europe. Then in 1935 as a guest of the Belgian Radio Club, aka "Réseau Belge," he attended the World's Fair in Antwerp and was royally entertained. This included an elaborate lunch at the chateau of Baron de la Roche, ON4AM. It stood in a huge open field. About 50 hams from a dozen or so countries were represented. He remembers looking through a wide doorway into an adjacent glassed-in room called the "Orangerie" where orange trees grew.

On this same trip he met Nel Cory, the first ham in the world, male or female, to earn the Worked All Continents Award on 10 meters. He also met Frederick "Dud" Charman, G6CJ, and John "Clarry" Clarricoats, G6CL, General Secretary for the Radio Society of Great Britain.

During World War II Yardley worked on radar receivers at MIT's Radiation Lab. Airwaves were reserved for government use at this time for security reasons, so hams put their rigs away. But when the war ended, Yardley was ready on the morning

when hams could be active again. In his small bedroom on that hot summer morning, with a power supply under his bed and an antenna strung outdoors to a tree, Yardley started tapping out the code with his earphones on—and nothing else!

After the war he moved to a house in the Riverdale section of New York City and worked as a physics professor at New York University. With his call letters changed to W2AWH, he continued to work more hams.

He took time out to go to Australia on a Fulbright grant. He said he saw lots of



The caption from Jan 1971 *QST*, page 72, reads: Yardley Beers, W0JF, won the August Cover Plaque award with his article, "Short Antennas for the Lower Frequencies." Presenting the award is ARRL Vice President Carl L. Smith, W0BWJ (left).



"There are enough receivers, transmitters, and transceivers in this picture to put nine stations on the air at one time. The best six of them are five watts and less"—W0JF, 1971. (You can see the Cover Plaque award just above his head.)



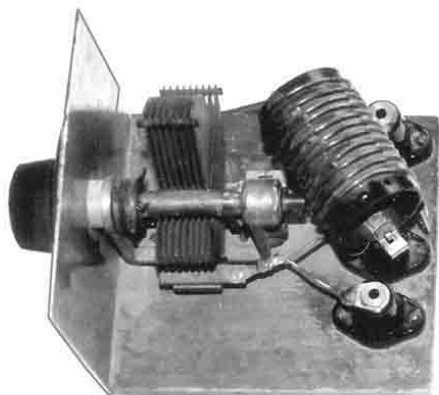
Yardley Beers today.



Yardley's lunchbox receiver from his school days.



Yardley's crystal set, built in 1923 at age 9.



W0JF's early homebrew wavemeter.

kangaroos there, but none happened to be out in a field in the northern suburbs of Sydney when he was helping hams clear the bush for a new radio club building!

Back on the East Coast in 1951, Yardley decided that for the last half of his working life he would move at least 1000 miles away, so he chose Boulder, Colorado. While in Boulder he took an exam and, under the new rules, traded W2AWH for shorter call letters. As W0JF he worked thousands more hams.

Working at the National Bureau of Standards, he was involved with WWV



Three of W0JF's surviving Sardine Can transmitters.

and oversaw the division that maintained the atomic clock. He was active in and later an honorary member of the Boulder Amateur Radio Club. As a ham, he helped the fire department and police with communications at forest fires and at a marathon. Then one moonlight night on Colorado's Trail Ridge Road at 12,000 feet above sea level, he worked hams on both coasts with his transistorized transceiver named the "Black Rose."

He likes to tell about unusual happenings. Once a neighbor called his home to report that Yardley was interfering with his television—during a time Yardley happened to be away at a science meeting in Moscow. Another time a neighbor claimed Yardley was coming right into her mouth when a loose filling vibrated.

And then one time when he was opening a sardine can in the kitchen he had a bright idea. He built the first of several radios in sardine cans. He has built many since then and says, the smaller the better. He has worked both coasts with sardine cans!

On his many travels he often carried a suitcase full of radio parts and a homemade collapsible antenna. On one trip he paid a long visit to John Ogg, G47PP, at his hideaway croft house on the Isle of Col, in the Hebrides, an area so remote that steamships stopped there only twice a week. Twice he traded houses with another ham, Jack Etherington, GD5UG, in Peel, on the Isle of Man. Each used the other's station—and car!

The following is from a Web reminiscence, "Some Encounters in Western USA 1984," by Jack and Margaret Etherington ([www.isle-of-man.com/manxnotebook/famhist/v07n3.htm](http://www.isle-of-man.com/manxnotebook/famhist/v07n3.htm)):

In June or thereabouts through the medium of one of my hobbies—Amateur Radio—I had spoken to an American radio ham whilst he and his family were on holiday at Woods Hole in Massachusetts, his home normally is at Boulder in Colorado. Following our radio contact the amateur in question, Yardley Beers and I exchanged quite a number of letters. I learned that he is a retired Professor of Physics who worked with the US National

Bureau of Standards until he retired. At the age of just over 70 he has gone back to college at Boulder to follow a long-standing interest, and he is now taking a degree in history. Another of his interests is in archeology, and he told me his professor at Boulder was trying to arrange for him to take part in an archeological excavation somewhere in England this summer. When I told him of the Liverpool University Rescue Unit and the dig in Peel Castle he seemed to think this was very much the sort of thing he had in mind. In short he is coming to Peel for five or six weeks this next summer—at the invitation of Mr. David Freke—to take part in the next session of the Peel Castle Dig.

Needless to say we just had to meet Yardley and his wife during our brief visit to Colorado's principal university city. We did have time though to take a tour conducted by Yardley of the Bureau of Standards and also the Atmospheric Research Center, a few miles to the north of Boulder.

Yardley also visited Les Moxon, G6XN, near London, an author and an expert on antennas. And on a trip in the other direction, he landed on Easter Island to discover that the driver of the van from the airport was a ham. He helped Yardley drape antenna wires overhead among the tropical plants and flowers in the courtyard where he stayed.

Over the years Yardley has had several short items in *QST*, and 11 articles. He received the *QST* Cover Plaque Award for one of them, "Short Antennas for the Low Frequencies," published in August 1970, after it was voted the most interesting article published in *QST* that month. As a result, his call letters were featured on the cover. He also wrote numerous scientific articles and was author of a book, *The Theory of Error*.

At present Yardley's room in Boston's Sherrill House contains two computers, piles of reference books, old *QST*s, a wide assortment of cables, wires, meters and radios. He never stops thinking up new ways of improving his radios. There are always new problems to work on, as there always have been.—K2TQN

Color photos by David Sawyer, W1PIE **QST**