The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

August 2020 Volume 26 Issue 08

MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 190 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.

Our summer swapmeet/ham fest tailgate held at InfoAge on July 25th was, according to president Richard Lee, "the biggest and most attended event we have ever hosted on the grounds of InfoAge!" Thirty-one spaces were assigned and 65 buyers were in attendance. The weather could not have been more accommodating while attendees gathered under shade trees swaying in a soft breeze coming off the Shark River. With masks and social distancing being enforced, many vendors thanked Richard for having the courage to sponsor this event during such trying times and to give people a chance to get out into the open air and enjoy their hobby. In attendance was ARRL regional director (Hudson Division) Ria Jairam who interviewed Richard for her ARRL YouTube channel.

Thanks go out to those members who helped making the day a success: Jerry Ingordo, Joe Giliberti, Sal Brisindi, Harry Klancer and Fred Warara. Of course, member Bob Bennett captured the action for his YouTube channel "RadioWild." Just click on the following link:
https://www.youtube.com/watch?v=sPby-pQF8DM

At a Zoom meeting on July 30th, your Board discussed the feasibility of holding a Repair Clinic that was scheduled for August 8th. One consideration was the close contact required between the repair expert and the radio owner, even if masks were worn. Since social distancing would be very difficult, it was decided to cancel the event. It was also reported that the club made a $1,000 profit on the swap meet. Traditionally, one half of that amount is donated to InfoAge. However, considering the financial losses that InfoAge has incurred since March, it was unanimously voted to donate the entire $1,000 to the campus.

As many of you know, InfoAge will be reopening on Saturday, August 1st from 1 to 5PM. Because of the cancellation of numerous events (tours, Vintage Computer Festival, Wall of Honor Reception, etc.) lost funding is expected to be over $87,000. In an attempt to weather the storm, a request for donations raised over $8,000 with $3,000 being contributed by the NJARC and its members. Now is a good time to consider joining InfoAge or making a contribution. InfoAge has been a generous and gracious host to our Radio Technology Museum and technical library and events such as meetings, swapmeets and auctions. We should be honored to be associated with such an historic site. Information for joining and/or contributing may be found at the website InfoAge.org.

Covid-19 has not completely shut down all activities on the InfoAge campus. Over the past ten months, the Military Technology Museum acquired an M47 Patton tank and an M26 Pershing tank from the New Jersey National Guard Museum at Sea Girt. Work has already begun on the restoration of the M47 and, upon completion, it will become a static display outside of the museum. When completed, work will begin on the M26.

The Shipwreck Museum operated by the New Jersey Historic Divers Association (NJHDA) has recently received permission to move into Building 9034, with an eventual occupancy of 99 visitors (24 at the present time). Although the building will still have a warehouse look for a few years (it was originally a WWII electronics shop), the group can now display some of its larger artifacts and run its Diving Demonstration Tank.

Finally, the club's best wishes go out to Fred Carl, InfoAge founder and Trustee. Fred was instrumental in establishing the NJARC as one of its first supporting clubs and attractions at InfoAge and securing many artifacts for display. Fred is currently working as a Project Control Manager at Princeton University on the Simons Observatory program. A primary goal of the program is to create polarization maps of the sky to enable better measurements of cosmological parameters.

MEETING NOTICE

The next NJARC meeting will take place on Friday, August 14th, 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, Professor Tom Perera will present the topic "Phil Weingarten's Fabulous Fakes." Phil Weingarten was the maker of counterfeit tubes, radios, telegraph keys and other artifacts and his talk was first presented at the New England Vintage Electronics Club. You can watch his video on YouTube by clicking on the following link: https://youtu.be/zc3RkT2288E.

Upcoming Events (Tentative)

August 14 - Monthly Zoom meeting, Prof. Tom Perera talk on "Phil Weingarten, Master Duplicator"
September 11 - Monthly meeting at InfoAge Bldg. 9032A, Larry Rubins audio demonstration
September 18-19 - Kutztown Radio Show
October 9 - Monthly meeting at Princeton's Bowen Hall, talk by Mike Molnar (topic TBA)
November 13 - Monthly meeting at InfoAge Bldg. 9032A, (topic TBA)
November 20 - Fall Repair Clinic at InfoAge Bldg. 9032A, 9AM - 4PM
December (date TBA) - Holiday Party at West Lake Golf and CC
January 8 - Monthly meeting at InfoAge Bldg. 9032A, Members Only Auction, dues collection

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.

BUYING A RADIO IN 1926

By
Ray Chase

I recently received an email from member Ray Chase informing me that he had come across the following article in his files and wondered if he ever sent it to me. At first, I didn't recognize it but eventually it showed up on my Word files from 2015. It probably did get published but I liked it so much I decided to include it anyway, especially with many new members joining during the past five years...Ed

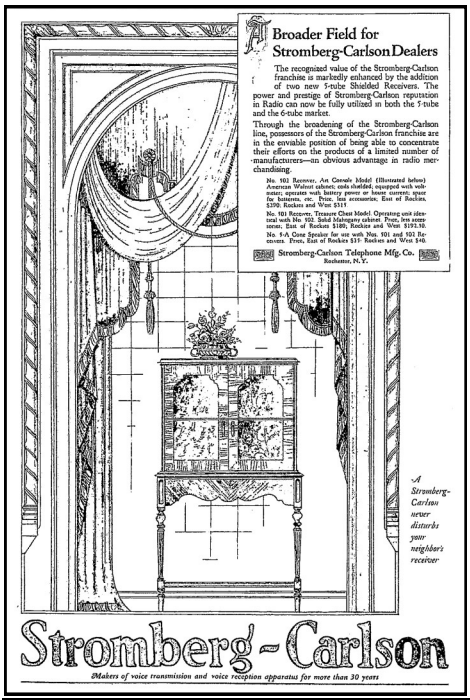
In going through my files of radio-related ephemera, I found a sales agreement for a radio transaction from December 22, 1926. Buying a quality radio then was somewhat akin to buying an automobile today. Here are the particulars:

The seller was George Brooks & Co. of 17 Main St. Somerville, NJ, (phone, Somerville 626). The form is actually a bill of sale and time payment agreement. Interestingly, the agreement is assigned to Mr. Lewis H. Flamerfelt of Peapack, NJ but is signed by Ada J. Flamerfelt. The form is dated December 22nd; maybe this was to be a Christmas present. The radio is a Stromberg Carlson type 502 Art Console with a listed price of $438.25. (That equates to $5854.00 today according to my inflation calculator). Added was a "carrying interest" charge of $23.30. There was a down payment of $50.00 and 12 monthly payments of $34.30 were stipulated. But, George Brooks & Co. did commit to free service for a year, "exclusive of material".

Looking at Alan Douglas's "Radio Manufacturers of the 1920's" indicates that the Stromberg Carlson 502 is a "top of the line" battery powered floor model set with built-in speaker. The bill of sale does not indicate that batteries were supplied but I assume that the sale was for a complete, working set up. The Flamerfelts may have regretted their purchase a year or so later when AC operated sets came on the market. It is much like buying an electronic product today and see it go obsolete as you walk out the door. Nothing in life changes but the year and the dollars involved.

Editor's Note: The asking price for the 502 in a "Talking Machine" ad for Sept. 1926 was $290 "less accessories." The speaker was one of these accessories at a cost of $35. It is advertised as running off of "battery power or house current." The bill of sale does not indicate whether the Flamerfelts bought an AC or DC set, but considering the cost, they probably did pay for batteries.

Alan Douglas also noted that the individually shielded RF coils in closely-fitting cans for the 502 (and 501) were a "revelation" to Hazeltine engineers.



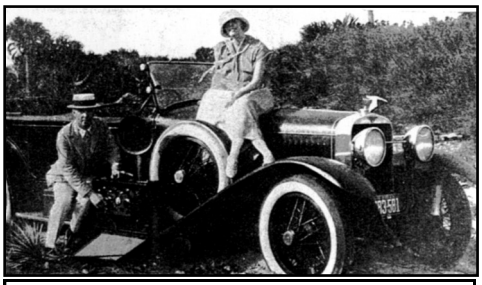
"Talking Machine World, " Sept. 1926

EDWIN HOWARD ARMSTRONG WAS A GEAR HEAD

By
Bob Bennett

Funny how when we're young, certain things tickle our fancy. Edwin Armstrong had plenty of unique interests and eccentricities at his disposal to stimulate his imagination. His incredible passion for how early radio functioned, no fear of heights and "the need for speed" are just a few examples. While attending college, he commuted on an Indian motorcycle. This was likely to be an early V-twin, capable of not just getting around, but rapidly! This may have been the spark that later on (after inventing the regenera-

tive circuit, super heterodyne circuit and super regenerative circuit) left him enough resources to buy a Hispano Suiza automobile.



Armstrong and his wife Marion on their new 1923 Hispano Suiza, just before they were married.

So you may be asking, "What is so unique about a 1923 Hispano Suiza?" Well, after having the privilege of restoring a car radio in a Tucker #48 a couple of years ago, I got schooled about Tuckers and how innovative (and fast) for 1948 they really were! The Hispano Suiza came out in 1919 and, at that time, it was the car of the future. The car could be purchased with different "coach" types to fit one's needs; Armstrong's model was an H6. They were made to compete with the Rolls Royce with quality mechanicals, performance and luxury.

Similar to the Tucker (with its 6 cylinder engines that were originally used in helicopters), the H6 used a V-8 engine that was originally used in WWI aircraft. The motor was then halved and a pair of cylinders were added to make a six cylinder! The block was made of aluminum with nitrated steel liners threaded in for durability (not too different from today's gasoline cars). The pistons were aluminum with tubular connecting rods, along with inline vertical valves that were gear driven in the front of the motor. There were 2 spark plugs per cylinder that utilized a twin ignition system. All of these expensive, pre-1920 speed goodies netted an overall horsepower of 37.2.

An Hispano Suiza H6

You might ask the question "when you have big car and big car performance, how do you stop it?" Well, the H6 had that covered as well. The brakes were finned aluminum drums (maybe that's how Buick got the same idea) on all 4 wheels and a pedal under the instrument panel called the "Servo brake" operated them. This patented system used a hollow gear driven cross-shaft with a brake drum rotating about 1/64th of the engine speed. Expanding shoes would expand to the drum at the same time the brakes were activated.

All in all, the Suiza was an early hot rod, and I'm sure the Major put it to the test! The H6 was made between 1919 and 1934 with a total of 2,614 cars produced. I think I can say with confidence that if the Major was still around today, he not only would have enjoyed our club, but would have arrived in a Ferrari or a Challenger Hellcat!

NJARC SUMMER TAILGATE 2020

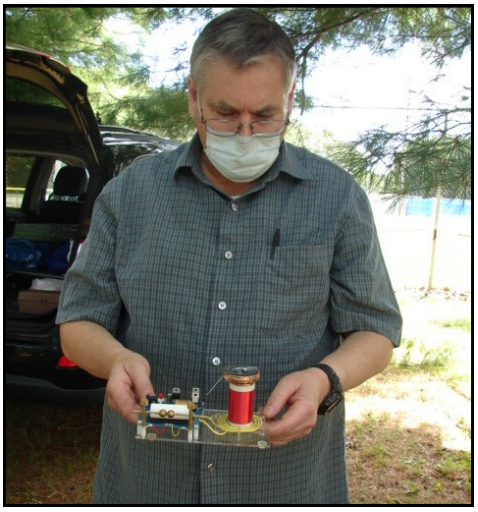
Photos by Marv Beeferman

Looks like a radio, but actually, it's a Philco air conditioner.

Aaron Hunter assists Mrs. Bennett at *Got Tubes* while husband Bob attends to his "RadioWild" duties.

A "chopped" Grebe?













WHY WWV AND WWVH STILL MATTER

By
James Careless

James Careless is a freelance feature writer who contributes to a broad spectrum of publications. They include general interest titles and magazines specializing in audio-visual technology, aviation, broadcasting, business and business associations, information technology, law, military, medicine, public infrastructure, public safety, travel and wireless communications. He is Ottawa Bureau Chief for Canadian Defence Review and host and producer of the CDR Radio Podcast. The following article first appeared in the July 1st issue of "Radio World" and is reproduced here with the kind permission of the author and editor of "Radio World."...Ed

Last year was one of both celebration and uncertainty for WWV, the station adjacent to Fort Collins, Colo., that transmits automated time broadcasts on the shortwave bands. On the negative side, WWV and its sister time station WWVH in Hawaii nearly missed this centennial. That's because NIST's original 2019 budget called for shutting down the pair, along with WWVB, the longwave code station co-located next to WWV, as a cost-saving move. Fortunately, these cuts never happened, and WWV, WWVH and WWVB seem likely to keep broadcasting the most accurate time from NIST's atomic clocks, at least for the immediate future. (No further cuts have been threatened.) That's good news for the stations' many supporters, who say that time broadcasts still matter in the Internet Age.

The WWVH building seen at night.

What They Have to Offer

Today, listeners around the world can get the most accurate time possible via WWV and WWVH's broadcasts on the shortwave bands. To make this happen, "WWV broadcasts continuously on six shortwave frequencies: 2.5, 5, 10, 15, 20 and 25 MHz," said Glenn Nelson, an electronics technician at WWV and WWVB. "WWV has 11 operational HF transmitters (including standby equipment), eight transmitting antenna towers, and associated time and frequency distribution equipment."

Timecode generators at WWV.

Located on the southwest portion of Kauai, WWVH "broadcasts 5 kW on 2.5 MHz and 10 kW on 5.0, 10.0 and 15.0 MHz," said WWVH Station Engineer Dean Okayama. "The time/frequency systems and transmitters are similar to WWV."

Both stations are known for the automated voices that tell the current time; WWV uses a male voice, while WWVH uses a female one, both timed to speak one after the other whenever both stations are heard on their shared channels. This NIST service also broadcasts standard time intervals, standard frequencies and other information including solar conditions affecting radio propagation. Both stations report the time using the Coordinated Universal Time zone, a.k.a. Greenwich Mean Time, which is five hours head of Eastern Standard Time.

In the early days of radio, WWV/WWVH's standard frequencies were used by commercial broadcasters to calibrate their transmitters to their assigned frequencies. "In the 1930s, WWV began broadcast standard time interval pulses," said Nelson. "In the 1940s, the U.S. Navy granted WWV permission to broadcast time of day announcements (this had been the exclusive responsibility of the Naval Observatory up until then). Voice announcements of time were added in the 1950s and a digital time code was added in 1960. In the '70s, the WWV audio signal was made available by telephone at (303) 499-7111, and this service has continued to the present day."

Why They Still Matter

The possible closing of WWV, WWVH and WWVB did not pass unnoticed. Tens of thousands of supporters signed petitions opposing the move, for a variety of reasons. Even today, WWV and WWVH's standard time broadcasts and frequencies are a great help for engineers calibrating equipment.

Part of the 15 MHz antenna system at WWV.

"While time-of-day information can nowadays be obtained through the internet, the combination of circuits involved in internet distribution can result in delays," said Dr. Kim Andrew Elliott, retired Voice of America broadcaster and audience research analyst, and now producer of the experimental broadcast Shortwave Radiogram. "These delays usually involve fractions of seconds, but that is enough to be significant in certain endeavors such as high-speed trading. For a lack of delay, nothing beats terrestrial radio. It is held back only by that pesky speed of light."

WWV/WWVH's audio tones are also precise and thus useful. "On WWV, the 440 Hz tone (the musical note A above middle C) is broadcast once each hour, during Minute 2 on WWV, and Minute 1 on WWVH," Elliott said. "You can tune your violin using WWV."

On a more scientific note, these reliable signals play an important role in forecasting "space weather," which can have a serious impact on the world economy whenever it gets "stormy." "As WWV's signals move from their transmitter site in Fort Collins to shortwave receivers, they pass through the ionosphere and undergo slight delay and frequency changes," said Dr. Philip Erickson of the MIT Haystack Observatory's Atmospheric and Geospace Sciences Group. "These changes, if measured carefully, contain much information on waves, density changes and other phenomena that form space weather known to affect national telecommunications, long-distance power grids, and human spaceflight."

Initially, these changes could only be detected using professional-grade receivers. But times have changed. "Atomic clock signal accuracy at the Colorado and Hawaii transmission sites means that modest receivers using inexpensive, modern technology can use these time signals as beacons to sense ionospherically induced changes," Erickson said. "This allows the formation of a distributed space weather network in the backyards of thousands of amateur radio enthusiasts across the continental U.S." Such a concept is being realized now by the Ham Radio Science Citizen Initiative (HamSCI; http:*www.hamsci.org*), which is developing a personal space weather station for use by citizen scientists.

They Would Be Missed

These benefits would come to an end should NIST's time stations ever go dark. "The ideas I've outlined, plus other similar concepts, naturally extend WWV's 100-year historic mission into the 21st century, and form an important part of national infrastructure in both the professional and emerging citizen science field," said Erickson. "It is vital that these signals continue to operate for the benefit of advancing human understanding of our near-Earth space environment."

WWV 10 MHz transmitter and standby.

It's not just WWV and WWVH that would be missed: "The general public will take notice if NIST station WWVB shuts down as its 60 kHz signal controls self-setting clocks known as 'atomic' clocks," said Thomas Witherspoon, editor of the shortwave radio website the SWLing Post. "Many don't realize it, but a large portion of wall clocks, alarm clocks and watches, not to mention weather stations, cameras and potentially a number of other devices, have a built-in receiver that self-calibrates," he said. "NIST notes that there are more than 50 million radio-controlled clocks in operation and another few million wristwatches that rely on WWVB for self-calibration. "The thing is, these devices are so embedded in our lives here in North America we scarcely notice them, and many consumers likely assume they're set by the internet. They're not."

A Defense Against Fake News?

WWV and its sister stations could also have relevance now for another reason. "The internet has become infamous as a purveyor of false information and counterfeit sites," said Kim Andrew Elliott. "This is true even during emergencies, including the coronavirus outbreak. "WWV and WWVH can be useful transmitters of emergency information: They are much more difficult to spoof than a website," he told RW. "If a fake station tries to transmit on WWV/WWVH frequencies, co-channel with WWV and WWVH, the listener will hear immediately that something is not right. If the fake station comes from overseas, it will usually sound distant, compared to the signal we are used to hearing in North America."

DOWN ON THE FARM WITH PARKER McCRORY

By
Marv Beeferman

I enjoy learning a little about the history of radios in my collection. This is especially true of those manufactured by companies I am not familiar with as was the case with a "Master Parmak" that I recently purchased at our InfoAge tailgate swapmeet. The radio was sold by the Parker McCory Mfg. Company of Kansas City, Missouri.

In 1921, Harold Parker and Kenneth McCrory, both confirmed "tinkerers," began manufacturing "precision electronic equipment." The word "electronics" was rarely used in the early 20s and it would be another two decades before the term would gain wide enough usage to be included in the dictionary.

Parker McCory began with the manufacture of highly specialized wind chargers and "Super Parmak" farm radios. Thousands of farms received their electrical power from Parmak Wind Chargers long before rural electrification began.

Parmak Super Wind Charger on display at the Agricultural Hall of Fame in Bonner Springs, Kansas.

***Popular Mechanics,* 1936**

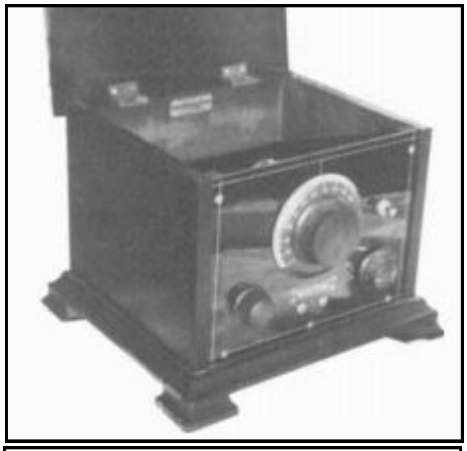
The company's concentration on the farm community would serve it well during the upheavals of radio manufacturing during the 20s and well into the future. The radio and the automobile, the two major consumer products of the 1920s, were both of paramount importance in helping rural dwellers overcome their sense of isolation from each other and from other parts of the country. Farm wives, for example, alone for long hours in the kitchen or doing housework, far removed from other farmhouses, were able to tune into radio programs and lighten both monotony and loneliness.

In addition, radio kept the farmer posted on current market prices, farm-related news from Washington and elsewhere, crop conditions, weather forecasts, and everything affecting his pocketbook. Agricultural extension programs, broadcast daily on the radio, brought the farmer and his wife the most up-to-date agricultural information via lectures by agricultural authorities on soils, fertilizers, cattle economy, poultry raising, and egg production. The content of radio broadcasts benefited the farmer both financially and socially.

One of the earliest Parmak radios was a single-tube regenerative set typical of most inexpensive 1920s radios. It is believed to be the first set that the company offered.

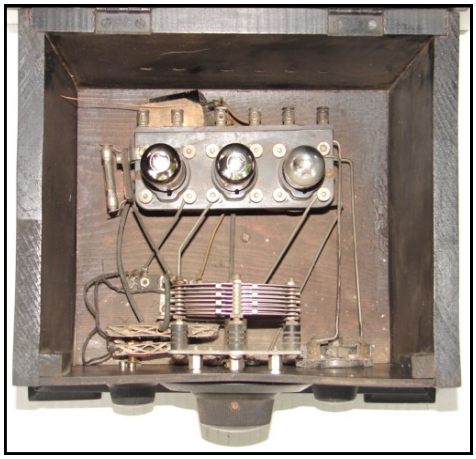
Early Parmak radio, perhaps the first offered for sale.

In the June 1991 *Antique Radio Classified,* a one-tube "Master Parmak" was shown in a more stylized case.



"Master Parmak" shown in ARC. Note the single tuning dial and adjacent power switch.

The radio that I purchased at our July swapmeet was also named a "Master Parmak." But unlike its single-tube cousin, it consisted of three 199's and two audio transformers. It did not have a power switch and only depended on the filament rheostat to control power to the tubes.



In 1924, the company offered a 3-dial, 5-tube (199s) "Super Parmak" TRF set.

Parker McCory continued to offer radios up to the 1940s with 30 models shown at the "Radiomuseum" website. Many are AC sets but among them are many high-end farm radios. By concentrating on a specific buyer, the farmer, the company was able to survive the boom and bust cycles that plagued the majority of radio manufacturers from 1920 through 1940.

The high-end model 733, 1937 Parmak "Masterpiece" farm radio with 3 RF and 3 IF stages, two short wave bands, push-pull output and two speakers.

In the early 1930s, Parker McCory pioneered the electric fencing industry and has since grown to become the world's oldest and largest volume manufacturer of electric fence chargers. Parmak originated the world's first solid-state electric fencer in 1958 and America's first solar powered fencer in 1979. The company also produces electric fence chargers, wire, tape, insulators, portable fence posts and other fence accessories.

FIELD DAY/ FIRST RADIO FOLLOWUP

Edited by Marv Beeferman

As a follow-up to last month's ARRL Field Day article in the *Broadcaster*, the club, under call W2RTM, had a preliminary score of 1,096 as reported by Nevell Greenough. We received 250 bonus points for using 100% emergency power and submitting our results via the web. Total QSO's were 81 CW and 261 phone over 20, 40 and 80 meters.

Member Bill Zukowski couldn't make it to InfoAge so he set up a one-man field day on his rear deck. Unfortunately, he didn't make any contacts but he gets an "A" for effort. He used a Yaesu FT-757GX transceiver powered by a car battery and a TAK-tenna 40-meter antenna. Bill noted that 40 meters had a very high noise level, either due to band conditions or the vertical orientation of the antenna. Bill said:

"I suspect both. In retrospect, I wonder if the antenna was any better than a 50-ohm resistor! It was the first time I had used it, and now I suspect all the great reviews on eham were from shills!"

Bill kludged together a 20-meter dipoles, but due to local topography, he could only elevate it about 15 feet. He was able to hear a few stations on a quieter 20-meter band (by about 8 "S" units), but he couldn't be heard on the other end, even after running 100 watts.

"Then the rains came about 45 minutes after I put up the dipole. Fortunately, I saw the clouds approaching so I was able to dismantle the station just in time! I had a good time, a good lunch but came away empty-handed."

First radios and electronics might be associated with Bar Mitzvah's more than I might have thought. As noted in last month's *Broadcaster*, Sheldon Greenspan's Bar Mitzvah gift at 13 was a Knight kit. Member Mike Slepian comments that his only Bar Mitzvah gift, received 58 years ago, was the same Heathkit crystal set that Sheldon received when he was 10. Mike received it from his cousin Irving Osofsky, an aeronautical engineer. Mike has since become an active Ham for just over 50 years and involved in the Coast Guard Auxiliary and has spent much of his career creating radio and TV film and on-line marketing. As for me, I received a used tape recorder for my Bar Mitzvah that gave me many years of pleasure; the manufacturer escapes me.

Member Paul Dooling always had a radio listening interest starting with his grandmother who minded him at 4-5 years old. "She always had a radio on." Paul says he still remembers the soaps and other radio shows. By 11, he was listening to police calls, Hopalong Cassidy and suspense programs:

"I worked as an auto mechanic and owned a repair shop for 30 years. At retirement, I joined the Suffolk County Radio Club and got my tech license. I got interested in military jeeps and military radios. After joining the NJARC, I found Al Klase's website and his POW WWII canteen radio. I knew I had to have it and could handle the mechanical part of the build. A big hand to all the NJARC Repair Clinic people in helping me get it up and running. It will pick up Radio China from Canada. I hooked up a Sony SF59 AM/FM pocket radio to show people at military shows what POW's had to listen to at POW camps in the Pacific."

YOU CAN JUDGE A BOOK BY ITS COVER

By Marv Beeferman

At our July swapmeet, I purchased the 1918 edition of *Robinson's Manual of Radio Telegraphy and Telephony,* originally published in 1907. The bookplate on the front endpaper read as follows: "SHIP'S LIBRARY, U.S.S. Eagle #16. After a little research, I found a very interesting story about this ship.

The Eagle-class patrol craft were a set of 60 steel ships smaller than contemporary destroyers but having a greater operational radius than the wooden-hulled, 110-foot submarine chasers developed in 1917. Each was commissioned USS Eagle Boat PE-(X), X being a number from 1 to 60. This book was aboard PE-16.

The building of the Eagle fleet was assigned to Henry Ford and his plan for building the ships was revolutionary. He urged that all hull plates be flat so they could be produced quickly in quantity and he also persuaded the Navy to accept steam turbines instead of reciprocating steam engines.

The boats never saw service in WWI; performance at sea was questionable. After the war, a number were used as aircraft tenders servicing photographic reconnaissance planes. Some were transferred to the Coast Guard and the balance sold by the early 40s. PE-16 was commissioned on June 1919 and transferred to the Coast Guard in December. Eight Eagle boats saw service during WWII. I wonder how *Robinson's Manual* wound up in New Jersey?

U.S.S. Eagle PE-2