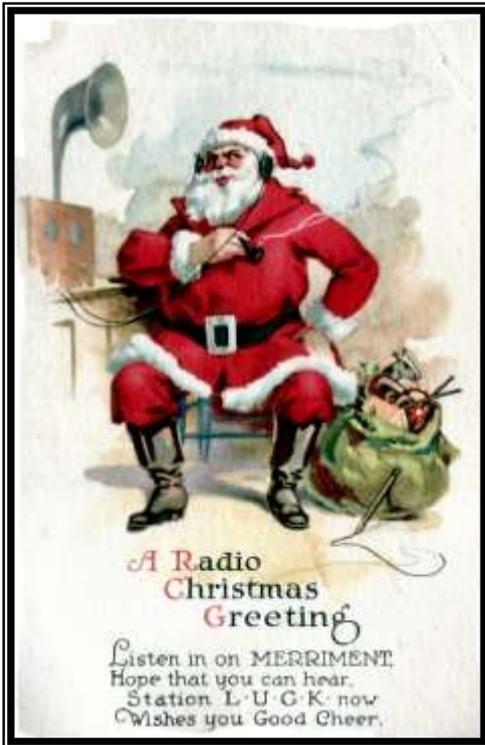
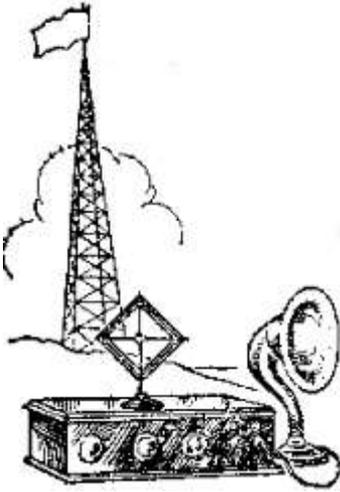


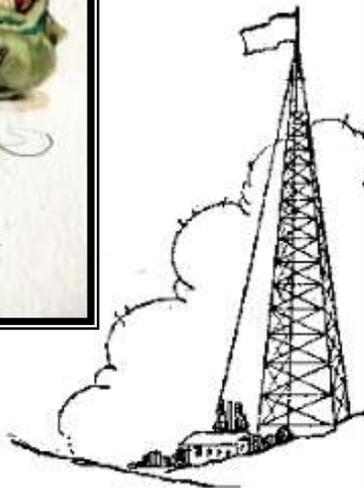
# The Carolina Antenna

Fall 2003  
Volume #9  
Issue #2



Carolinas  
Chapter  
of the  
Antique  
Wireless  
Association

See page 3 for CC-AWA  
Christmas Party Information





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**ISSUE # 9**

**FALL 2003**

**VOLUME #2**

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## **PRESIDENT'S MESSAGE**

**BY RON LAWRENCE  
CC-AWA PRESIDENT**



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Well, here we are with the second issue of the "Carolina Antenna". I had a lot of really good feedback about the first issue, I'm sure it will be the same with this one.

In late July we had a great time attending the CC-AWA Summer Swap Meet in it's new location. Richard Owens did a great job of planning the event in his hometown of Valdese, NC. The site, McGalliard Falls Park, is a really nice location for a Saturday morning event. There is plenty of parking for both sellers and shoppers. I would guess that there were 25-30 vendors and about twice that many shoppers. Great job Richard, we look forward to being there again next year.

I'm not sure how the timing is going to work, whether you'll get this issue

before the Fall Swap Meet in Greensboro/Jamestown or not. I know everyone is looking forward to it; it's always a well-attended event. I hope to see everyone there.

I was glad to see a lot of club members at the Shelby Hamfest; it's always a "don't miss" on my calendar. Thanks to a good friend I managed to bring home a nice stack of vintage books and a neat piece of broadcasting memorabilia, the control panel from the original 1926 transmitter of station WNRC in Greensboro, NC. Wayne Nelson W4AA, a long time ham operator and big time radio collector started WNRC. I never had a chance to meet Wayne as he passed away in the mid 70's. I have seen photos of his collection and it was really something.

I am proud to report that the CC-AWA was honored to receive the "AWA Presidents Award" for 25+ years of supporting the antique radio hobby. Robert Lozier accepted the award for us at the Friday evening banquet at the years Rochester conference. Many thanks to AWA President Geoff Bourne for this award.

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**NEWS FROM  
"RADIO HEAVEN"  
BY RON LAWRENCE**

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In an effort to create more page filler for the CC-AWA Bulletin I thought I'd write about my radio collection.

For those of you that aren't "On-Line", "Radio Heaven" is the name of my radio collection web page. The name was coined by my good friend Gerald Cromer who along with his wife Betty were the first visitors to arrive at the unveiling of my newly finished display room in March of 1990. When he walked in the room he said, "Wow, this must be Radio Heaven". In about 1996 when I finally got around to getting "On-Line" I discovered Homestead.com that at that time had "free" web pages. I had seen a commercial for them of TV and decided to give it a look. I had never done anything with HTML and knew nothing about building a web page, but their system made it so easy I was building my first page after about ten minutes. I needed to name my web page and remembering back to what Gerald had said years before so I called it "Radio Heaven". The original web page has grown and grown to many pages about different parts of my collection, I have also added the CC-AWA's web pages. If you haven't visited either "Radio Heaven" or the CC-AWA web page it's easy once you get on-line. Just go to [cc-awa.org](http://cc-awa.org), at the main menu you'll find lots of selections for club activities and a button for "Member Collections" if you'll "click" there you'll find a link to my

web page, plus other members collections.

In the just over 33 years that I have been collecting since I bought my first "antique radio" when I was still in high school, my collection has grown to somewhere over 400 radios, plus horn and cone speakers, tubes, magazines, and lots and lots of small items related to radio. My "collection fit in my bedroom when I was still living in my parents home, I think I had maybe 6 or 7 radios. When my wife and I got married and moved into our first home I took over one of the bedrooms of our 2 bedroom duplex. I still only had 6 or 7 radios in the collection, I had also gotten interested in CB radio and shortwave listening, this was 1974. All this time I didn't know anyone else that collected radios, had never heard of the AWA.

As the next couple of years passed I picked up a new "old" radio once in a while. We attended the flea market at the county fairgrounds fairly regularly. Between it and yard sales this was my primary source for additions to my small collection, this is the same flea market where I bought my very first "antique" radio in 1970 while still in my junior year in high school. At one of our visits to this flea market in 1975 or early '76 I ran across a dealer that was selling cassette tapes of old radio shows. I thought it would be neat to have one of them to play through one of my radios. I picked out a copy of Orson Wells' "War of the Worlds". While I was paying for it the dealer, I think his name was Gordon West, asked me what my interest was in the

radio show. I told him I collected old radios and planned to play it through one of them. He asked me if I knew a gentleman named Robert Lozier. When I told him no, that I didn't know anyone else that collected radios, he said if I would give him my name and address he would pass it along to Mr. Lozier the next time he saw him.

In the fall of 1976 my wife Belinda and I bought our first house. We had just bought a new car and it scarred me to death when she called me at work one morning after seeing a house that she passed everyday on her way to work. We went to look at the house that night. We lucked out in that my mother was secretary to a man that owned a large real estate company and one of her good friends that worked there offered to help us with dealing with the sellers of the house. My mom and her friend went with us that night to see it. It was a small 1200 square foot 3 bedroom ranch built in the late 50's and just right for a young couple with a growing radio collection. One of the bedrooms could be used as a den since it was paneled in knotty pine. When I discovered this room I called Belinda in and told her that I had just one request, "If we get this house, this room is mine". She said "what are you going to do put radios in it?" Well with a lot of luck we managed to buy the house. It had been many months since I had given my name to the guy at the flea market, so I was surprised one day to get a long formal letter of introduction from Robert Lozier. As soon as I read it I picked up the

phone and called him. It seems that even though he lives some miles away in Monroe NC, he works just a few miles from my home, so I invited him to stop by soon on his way home. I knew about what time to expect him and just happened to be looking out the front window when this little yellow Ford Pinto station wagon turned into my driveway with this strange looking turnstile antenna mounted on the roof.

I was to later find out that Robert wanted to listen to NPR and the local public radio station in Charlotte didn't carry it at the time, so he had to have a bigger antenna to pull in the South Carolina station that did carry it. The forthcoming meeting with Robert would change my collecting career and my life.

More to come in part two...

Ron in Radio Heaven





**1933 GREBE MODEL 89 TV  
RECEIVER  
BY ROBERT LOZIER**

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Less than two years ago I bought this Grebe tombstone at the MAARC annual conference in Beltsville, MD. How could I resist when you see Dr. Mu right there on the dial?



This character was first seen in a Radio News advertisement for the Grebe CR-8 dated September 1921. This Oriental sage would have some comment such as: "Good words", said Lao Tzu, "shall gain you honor in the market-place; -- but good deeds shall gain you friends among men!" "So shall the good deeds of Grebe Radio Apparatus gladden the

heart of the Amateur. Words fail to express its excellence."



When you spin the radio around you see a big nameplate that plainly identifies this set as a Model 89 and says A. H. Grebe & Co. Riders has a schematic for this set that show connections for a short wave converter, phono input and a television neon lamp! But it was easy to see that this chassis never had any such connections.....



Fast forward 10 months to the 2003 CCAWA conference in Charlotte, NC where AWA member Don Donadio brings in a load of almost junk sets. Or should I say, diamonds in the (very) rough.? Much to my surprise he had a Grebe tombstone with identical cabinet (literally falling

apart) but it has a chassis with the exact circuit shown in Riders! My guess is that the first run of sets had the chassis with TV neon terminals, converter and phono input. But, since scanning disc TV was going nowhere fast in 1933 and the Depression was still hitting hard; they decided to save a few bucks by leaving these features out of the remaining run.

The good looking Grebe set shown here has a plugged hole between the volume and tone controls. The chassis has a knockout right at this point. It could have been for a power switch independent of the volume control. The ugly cabinet never had a hole here. More evidence that these sets were probably built in small batches making do with available parts on hand.

I have not seen a Grebe short wave converter similar to the Stewart-Warner "dog house" but there must have been at least a small run of them built. Our AWA Prez, Geoff Bourne, has a "double decker" Grebe console with the short wave converter chassis mounted above the radio chassis just like S-W, Philco and others did for one year.

And who really made these sets? A. H. Grebe Co. went bankrupt in 1932.... The only answer I have at this time is given in the schematics shown in Riders Vol. IV.... In the same volume there is a schematic for the Model HS-11 that is identified as "Grebe Radio Sales and Service Co. formerly Service Dept., A. H. Grebe & Co. Inc." These sets

could have been the last units out of the factory or left over parts bought from the liquidation and assembled in some other factory and sold through the Sales and Service Co.

A. H. Grebe, Jr. says that there were other Grebe branded radios built as late as 1937 but I have yet to find any additional information to share with you.

Robert Lozier –  
[kd4hsh@juno.com](mailto:kd4hsh@juno.com)  
704-458-1076 cell

### **ANTIQUÉ RADIO ARTICLE MAY 03**

In the 1950's & 60's my home town in the Piedmont region of Southeastern USA was primarily a town for farming and textile production. The nearby big city, Charlotte, was (and still is) a center for retail commerce and distribution. Manufacturing businesses for the support of the telecommunications industry and radio broadcasting seldom selected this area of the country for factories. Prior to WW-II this area was considerably less well off than in the triangle between Washington, Boston and Chicago. Therefore people had less income to spend on such luxuries as radios. Relatively few people were exposed to such technical industry. For these reasons, there have been relatively few collectors of vintage radio equipment in this area.

Just after beginning my primary school education I almost died after complications from minor surgery. My parents were advised that I was

a frail child that should refrain from strenuous activity. (Advice that would never be given today under the same circumstances.) Therefore I did not participate in sports and eventually developed an interest in short wave radio listening after my father gave me a used Hallicrafters S-40 communications receiver for my eleventh birthday. It was a wonderful gift to me from a father with very little money but lots of love for his wife and children. Soon I was sending off radio reception reports to the likes of Radio Moscow, the BBC and even RAI in order to receive their colorful QSL cards. On the last Tuesday of every month I would walk for about a half hour to get to Jones News Stand located across the street from the Union County courthouse square. Here I would make a beeline for the new issue of Popular Electronics magazine and then go to the back of the store to pick out a comic book. And as time went by, of course, most of my thoughts were on how to sneak peeks inside the girlie magazines when the proprietor was not looking.

Popular Electronics always had features on short wave listening, "SWLing", and plenty of articles on constructing all kinds of electronic equipment. Along about 1964 there was an article titled "Restoreth Thy Relic". It presented instructions on how to return an early 1930's vintage "cathedral" radio to good operating condition. I read the article with some interest but did not have any ideas on where I could get such a radio for restoration. This was a time when I had just

graduated from High School and was working full time in a J. C. Penney retail clothing store in order to save enough money to buy a used car so that I could attend a technical college in Charlotte.

By 1966 I had bought a baby blue 1959 American Motors Rambler station wagon and began Electronics Engineering Technology classes at Central Piedmont Community College. Short wave listening was still of great interest to me and I was always going back through old magazines like Popular Electronics for information on project ideas. I'm sure that I read, again, the "Restoreth Thy Relic" article. By this time I remembered that I had seen an "antiques shop" on one of my outings to the countryside in my, new-to-me, Rambler. The shop was called the Red Barn and was located about 12 miles south of town. One fine Saturday morning I decided to go to the shop and have a look around. There was plenty of glassware, old tools, general household furnishings and "old time" primitive furniture but not a radio in sight.... I finally told the proprietor that I'd like to find an old radio to fix up but did not see one in his shop. He said that he had one in a building out back and invited me to follow him.

The building turned out to be two or three abandoned chicken houses filled to the rafters with more primitive furniture and old farm tools and machinery. The houses had not even been cleaned out after the last truckloads of chickens had gone off to slaughter..... The

proprietor approached a bread loaf like mound of wood shavings and chicken manure and kicked some if it aside to reveal a radio cabinet! It turned out to be an RCA Radiola 18 broadcast receiver of 1927 vintage. Much to my surprise, the cabinet seemed to be fairly OK and most of the paint was still good on the two radio chassis. I said that I thought it might be possible to get it going and asked him how much he wanted for the radio. I think he said \$25 and I remembered that I though the guy was insane! But the old guy could see that I was hooked and stuck to his price. After a couple of evenings work, I had the radio working and not long after that the cabinet was looking pretty good after stripping, staining and several coats of polyurethane varnish.

Sometime around the start of the 1967 Fall semester at the technical school there were plans to have an "open house" where prospective students, their families and people active in local government and education would visit. By this time I had about 20 vintage radios and decided to exhibit them in the electronics lab as a way of showing how far radio technology had advanced in less than 50 years. People thought it curious that someone would actually want to collect such things. I did not know anyone that had a similar interest. It would be another three years before I learned of the Antique Wireless Association, Inc. By 1973, I was making plans to attend my first AWA conference in Rochester, New York.

I will never forget the first visit I made to Bruce Kelley's "barn" on a Thursday evening before the start of the conference. Really a fine little carriage house filled to overflowing with the finest in radio technology from 1900 to 1930. I could only go away in complete amazement thinking that guys like him must already have all the "good stuff". In 1973 it was already too late to ever think that I could assemble a collection of any consequence.

I was discouraged but did not stop collecting because I enjoyed fixing up the old equipment and also enjoyed going to Friday night and Saturday morning estate auctions. As mentioned earlier, people in this area were not as well off before WW-II so few vintage radios were to be found locally. However there were several auctioneers in my region that would contract for "pickers" to bring down trailer loads of antiques and collectable merchandise from Pennsylvania, New York, Massachusetts and Ohio. For a period of about ten years I was able to buy many fine broadcast receivers at these local auctions which are still in my collection today.

I was aware that some collectors specialized in military, commercial or amateur radio equipment. I found this equipment technically interesting but seldom had the opportunity to buy. That is when I decided that specializing in broadcast receivers for use in the home would be most productive.

Soon I was earning enough money to make one to three trips per year

to central Pennsylvania. There is an area there that was a virtual Mecca for collectors of all things vintage or antique. As I began to meet other collectors I found that there were regional meetings for vintage radio enthusiasts so two or three of these meetings were added to my annual routine. (To date I have attended something like 160!)

At the first conference I attended in 1973, there was an exhibition of equipment brought in by participants at the conference. Ribbons were awarded in various categories based on historical significance, rarity, quality of restoration, documentation, etc. After a few years I thought I had a few items that were worthy of exhibition. Every year I would come away with one or two ribbons. By the mid 1980's placing vintage equipment on exhibition was a major focus of my hobby.

The research necessary to properly exhibit radio items provided me with material to prepare a number of lectures on company history, political impact of broadcasting, early television history and articles on restoration and preservation techniques.

I began to think differently about my collecting.... Was it really a good idea to "get the old gear running" if it required significant parts replacements? Does the cabinet on an old radio need to look brand new? Should I assume that people seeing the item know something about the history of the manufacturer and the times in

which they were produced? Should we have any interest in technology and products developed outside the USA? Should we devote time to educating new generations about the history of telecommunications technology, the people and institutions that made it possible for the equipment to be manufactured?

I now believe that it is most important to keep equipment, as close as possible, identical to the way it was originally built. This will often mean that the equipment will no longer work. Capacitors go leaky or open circuit, resistors open or change value, tubes become weak. But if you replace these parts with new components, then future generations will no longer be able to know how the old components were made or why they fail. In other words you are corrupting the historical record.

An old radio need not look brand new.... It is far better to properly conserve an item suffering only the usual signs of exposure to the decades. Of course you will acquire items that are so badly damaged that conservation work will do little to make the item presentable. In such cases, restoration is justified if you take the time to do the work correctly. Remember my telling you about my first old radio? The Radiola 18? I did not properly research the methods originally used to finish the mahogany cabinet. I should have used a rather heavy lacquer finish that completely filled the pores of the wood rather than the polyurethane varnish coating showing open grain.

I have enjoyed preparing my exhibitions to incorporate not just technical data on the item but to give interested viewers the opportunity to see what kind of advertising was used to promote the product. If at all possible I give a brief history of the company that produced the product. I try to assemble recordings of music, comedy or political discourse to play through a loudspeaker. (Almost always the loudspeaker can be operated without having to make repairs to the radio.) I even try to give the exhibition viewer some idea of how the radio might have been placed in the home. All these things help to place the equipment in the proper historical perspective.

As my knowledge of American broadcast radio history increased I began to be curious about how broadcast radio had developed in other parts of the world. Just about this time I had the great good fortune too meet an Italian national who was working in the USA. This amazing world traveler had developed an interest in collecting broadcast radios while in the US and I was delighted to have him visit my home a number of times and exchange hundreds of pages of letters and other information over the last 20 years.

Some 15 years ago he returned home to Italy but we remained friends.... By this time I was eager to acquire representative examples of European made radios to contrast to the designs and manufacturing techniques employed here in the US. However I am not wealthy enough

to be able to make cash purchases of collectible radios from European sources. Another stroke of good fortune - For this guy, trading is in his blood. All I needed to do was to trade interesting American made radios for European sets.

Still another stroke of good fortune was in the fact that he worked as a sales agent for an Italian knitting machine company and this company maintained a distribution and service office near my home town. With such international commerce connections, he could make arrangements to ship vintage radio equipment at very reasonable cost to both of us. Thus we were able to trade dozens of items over a ten year period.

By now you may have guessed that this very interesting gentleman is none other than Vic Franzoni who lives near Brescia, Italy. He and his wife Maggie were kind enough to invite me to visit on holiday in June of 1989. Vic made arrangements for us to visit many outstanding collectors and even to tour RAI's Turino studio historical collection which was not then open to the public. With out a doubt, Vic his wife and the collectors I visited made this the best vacation of my life.

As I acquired these interesting new additions to my collection, I needed to research their history and I therefore began my memberships in the British BVWS and the German GFGF historical societies. This gave me the opportunity to meet other collectors and amateur historians

from many other parts of Europe. I've been able to take one holiday and two business trips to the UK with a number of great opportunities to visit fine collections and share great conversation. I'm hooked! If it were not for the bad economy of the last few years forcing a loss of a good job, I would be visiting collectors in Europe every year. Hopefully one day will come when I can travel again.

One other radio related activity that has been important to me for over 25 years is helping to run a regional conference for vintage radio enthusiasts. On the third weekend of March the Carolinas Chapter of the Antique Wireless Association hosts a three day event that attracts over 300 collectors from 20 states. The event features a flea market exclusively for vintage radio buying, selling and trading. There are usually some 90+ vendors filling about 130 parking spaces. There are lectures, an old equipment exhibition and two auctions. A great opportunity to see old friends and make new ones in this hobby that remains small in numbers even though the telecommunications industry has had a dramatic impact on the lives of virtually all the people of the earth for the last 150 years.

When I first began collecting, I thought the only broadcast receivers worthy of ownership had to be made during the 1920's. It was amazing to learn that literally thousands of companies, large and small, built radios at one time or the other in the 1920's. There were a tremendous

variety of cabinet designs and hundreds of variations on circuit design. As I became more familiar with these design variations, I developed a curiosity for whatever came next and therefore after about ten years I started actively seeking out radio designs of the 1930's. By the late 1980's I found myself looking for items made in the 50's and soon developed a special interest in early examples of transistorized radios. I'll even admit to having had fun collecting novelty transistor radios some five years before the boom in this sort of collecting.

I also had an interest in collecting representative examples of American televisions. Of course these TV's can take up a great deal of floor space. I do have 15 nice items including three black & white projection TV's of the late 1940's, the Philco Predicta & Safari, two "porthole" Zenith's, RCA 630 chassis set built by Air King, etc.

The most valuable item in my collection is not a radio but a television. It is a circa 1930 Jenkins JK-20 scanning disk television receiver and matching Jenkins 60 line scanner. This item appeared for sale at a large amateur radio "hamfest" in Charlotte. Only one other extraordinary item like that has ever been seen for sale at that event.

An outfit like this is far too valuable to repair to working condition especially because there were never any modifications from the day Mr. Murphy built it. However I wanted

very much to witness 60 line scan television pictures as would have been seen in 1930. After much research on the subject I decided to design and build my own scanning disk camera and receiver. I determined that the system must be robust enough to run for hours at a time while on exhibition. Components over sixty years old simply could not perform under such conditions reliably. (At an exhibition you do not have the luxury of making repairs on the spot.) Therefore, while the mechanical components are faithful to original concepts, the electronics make use of modern solid state parts. Great care was taken to insure that the fidelity of images produced are very close to what would have been received over the air under good conditions way back then. I have derived great pleasure in demonstrating the equipment at several conferences and now keep the outfit set up for demonstration at my home.

The radio industry of the USA was the largest in the world for at least 45 years and therefore may well lay claim to having introduced 50% of all technical and design innovation during those times. However that means that there still was a tremendous amount of innovation in the rest of the world. Because of protectionism in world trade, limited exchange of technical information and business licensing in many countries; many American vintage radio collectors are poorly informed about this overseas industry.

I have a great curiosity about overseas industry. When looking at radios like the Loewe OE-333 with it's single vacuum tube containing not only three sets of tube elements but also the resistors and capacitors necessary to for a complete detector and amplifier module; to American eyes, this radio could well have been designed and built on Mars! There is no real equivalent in American practice.

There are sets like the 1937 Philips D-57 "mono knob", a radio with unique cabinet design and method of control with audio quality unmatched in any American table model sets of the 1930's. The whole dramatic story of how the Germans and Italians produced radios to insure indoctrination of the people. The state control of broadcasting, usually supported directly by annual taxation on radio ownership, which encouraged the manufacture of simple radios with only two or three tubes. The language barrier for the average man reduced the interest in expensive, highly sensitive and selective radios to pick up foreign broadcasts.

My present goal is to own one or two examples of broadcast receivers from each decade of radios manufactured in every country. To date I have about 30 countries represented with at least one radio.

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**PHILO FARNSWORTH  
MODERN CORPORATE MARTYR**

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Imagine this: In the mid 1950s, the television show called "What's My Line" comes on the air. After a

commercial, host John Charles Daly welcomes the first guest. An unassuming elderly man wanders on to the set. He whispers his secret into Daly's ear: "I invented Televison." It is true. Absolutely true without question. This is the first, last and only appearance of Philo Farnsworth ---genius, crackpot, hero and martyr --- on the medium that he created.

### **THE DARK SIDE OF CAPITALISM**

The key to the television picture tube came to him at 14, when he was still a farm boy, and he had a working device at 21. Yet he died in obscurity.

For those inclined to think of our fading century as an era of the common man, let it be noted that the inventor of one of the century's greatest machines was a man called Phil. Even more, he was actually born in a log cabin, rode to high school on horseback and, without benefit of a university degree (indeed, at age 14), conceived the idea of electronic television--the moment of inspiration coming, according to legend, while he was tilling a potato field back and forth with a horse-drawn harrow and realized that an electron beam could scan images the same way, line by line, just as you read a book. To cap it off, he spent much of his adult life in a struggle with one of America's largest and most powerful corporations. Our kind of guy.

I refer, of course, to Philo Taylor Farnsworth. The "of course" is meant as a joke, since almost no one

outside the industry has ever heard of him. But we ought not to let the century expire without attempting to make amends.

Farnsworth was born in 1906 near Beaver City, Utah, a community settled by his grandfather (in 1856) under instructions from Brigham Young himself. When Farnsworth was 12, his family moved to a ranch in Rigby, Idaho, which was four miles from the nearest high school, thus necessitating his daily horseback rides. Because he was intrigued with the electron and electricity, he persuaded his chemistry teacher, Justin Tolman, to give him special instruction and to allow him to audit a senior course. You could read about great scientists from now until the 22nd century and not find another instance where one of them celebrates a high school teacher. But Farnsworth did, crediting Tolman with providing inspiration and essential knowledge.

Tolman returned the compliment. Many years later, testifying at a patent interference case, Tolman said Farnsworth's explanation of the theory of relativity was the clearest and most concise he had ever heard. Remember, this would have been in 1921, and Farnsworth would have been all of 15. And Tolman was not the only one who recognized the young student's genius. With only two years of high school behind him, and buttressed by an intense auto-didacticism, Farnsworth gained admission to Brigham Young University.

The death of his father forced him to leave at the end of his second year, but, as it turned out, at no great intellectual cost. There were, at the time, no more than a handful of men on the planet who could have understood Farnsworth's ideas for building an electronic-television system, and it's unlikely that any of them were at Brigham Young. One such man was Vladimir Zworykin, who had emigrated to the U.S. from Russia with a Ph.D. in electrical engineering. He went to work for Westinghouse with a dream of building an all-electronic television system. But he wasn't able to do so. Farnsworth was. But not at once. He didn't do it until he was 21. By then, he had found investors, a few assistants and a loving wife ("Pem") who assisted him in his research. He moved to San Francisco and set up a laboratory in an empty loft. On Sept. 7, 1927, Farnsworth painted a square of glass black and scratched a straight line on the center. In another room, Pem's brother, Cliff Gardner, dropped the slide between the Image Dissector (the camera tube that Farnsworth had invented earlier that year) and a hot, bright, carbon arc lamp. Farnsworth, Pem and one of the investors, George Everson, watched the receiver. They saw the straight-line image and then, as Cliff turned the slide 90 [degrees], they saw it move--which is to say they saw the first all-electronic television picture ever transmitted.

History should take note of Farnsworth's reaction. After all, we learn in school that Samuel Morse's first telegraph message was "What

hath God wrought?" Edison spoke into his phonograph, "Mary had a little lamb." And Don Ameche--I mean, Alexander Graham Bell--shouted for assistance: "Mr. Watson, come here, I need you!" What did Farnsworth exclaim? "There you are," said Phil, "electronic television." Later that evening, he wrote in his laboratory journal: "The received line picture was evident this time." Not very catchy for a climactic scene in a movie. Perhaps we could use the telegram George Everson sent to another investor: "The damned thing works!"

At this point in the story, things turn ugly. Physics, engineering and scientific inspiration begin to recede in importance as lawyers take center stage. As it happens, Zworykin had made a patent application in 1923, and by 1933 had developed a camera tube he called an Iconoscope. It also happens that Zworykin was by then connected with the Radio Corporation of America, whose chief, David Sarnoff, had no intention of paying royalties to Farnsworth for the right to manufacture television sets. "RCA doesn't pay royalties," he is alleged to have said, "we collect them."

And so there ensued a legal battle over who invented television. RCA's lawyers contended that Zworykin's 1923 patent had priority over any of Farnsworth's patents, including the one for his Image Dissector. RCA's case was not strong, since it could produce no evidence that in 1923 Zworykin had produced an operable television transmitter. Moreover,

Farnsworth's old teacher, Tolman, not only testified that Farnsworth had conceived the idea when he was a high school student, but also produced the original sketch of an electronic tube that Farnsworth had drawn for him at that time. The sketch was almost an exact replica of an Image Dissector.

In 1934 the U.S. Patent Office rendered its decision, awarding priority of invention to Farnsworth. RCA appealed and lost, but litigation about various matters continued for many years until Sarnoff finally agreed to pay Farnsworth royalties.

But he didn't have to for very long. During World War II, the government suspended sales of TV sets, and by the war's end, Farnsworth's key patents were close to expiring. When they did, RCA was quick to take charge of the production and sales of TV sets, and in a vigorous public-relations campaign, promoted both Zworykin and Sarnoff as the fathers of television. Farnsworth withdrew to a house in Maine, suffering from depression, which was made worse by excessive drinking. He had a nervous breakdown, spent time in hospitals and had to submit to shock therapy. And in 1947, as if he were being punished for having invented television, his house in Maine burned to the ground.

One wishes it could be said that this was the final indignity Farnsworth had to suffer, but it was not. Ten years later, he appeared as a mystery guest on the television

program *What's My Line?* Farnsworth was referred to as Dr. X and the panel had the task of discovering what he had done to merit his appearance on the show. One of the panelists asked Dr. X if he had invented some kind of a machine that might be painful when used. Farnsworth answered, "Yes. Sometimes it's most painful."

He was just being characteristically polite. His attitude toward the uses that had been made of his invention was more ferocious. His son Kent was once asked what that attitude was. He said, "I suppose you could say that he felt he had created kind of a monster, a way for people to waste a lot of their lives."

He added, "Throughout my childhood his reaction to television was 'There's nothing on it worthwhile, and we're not going to watch it in this household, and I don't want it in your intellectual diet.'"

So we may end Farnsworth's story by saying that he was not only the inventor of television but also one of its earliest and most perceptive critics.

Farnsworth's basic television patents covered scanning, focusing, synchronizing, contrast, controls, and power. He also invented the first cold cathode ray tubes and the first simple electronic microscope. He used radio waves to get direction (later called radar) and black light for seeing at night (used in World War II). During the 1960s he worked on special-purpose TV,

missiles, and the peaceful uses of atomic energy. Before his death, he worked on a nuclear fusion process to produce clean, virtually unlimited energy; he held two fusion energy patents. When he died at age 64, he held more than 300 U.S. and foreign patents. He was one of four inventors honored in September 1983 by the U.S. Postal Service with issuance of a stamp bearing his portrait

Of relevance to our Farnsworth Radio-Phonograph console is the fact that Philo actually tried to set up broadcast networks in both New York and Los Angeles during the 1930s and 1940s. He made these absolutely wonderful radios in order to get enough money to fund his fledgeling TV network!

## **BAD THREADS?**

In restoring old radios and companion equipment, occasionally there are problems with stripped or damaged threads. A product that works great is Form- A- Thread, from Loctite. It works on almost all metals, in many wood applications, and in some plastics (caution, stress cracking may result when used on thermoplastic materials). A kit of this material can be purchased for about \$8.00 at NAPA stores part number 765-1248.

Recently I restored a model 52 Crosley. The tube sockets on this radio are "stood off" from the front panel by roughly 2 1/2 inch long rods threaded into the bakelite material of the tube socket. I had found a replacement tube socket for

a broken one, and a standoff rod, but one of the threaded ends of a standoff had been broken off a few threads down into the bakelite. The thread size is 6-32. It is virtually impossible to drill out this size thread and save it. Putting in a new location for the thread would mean an extra hole in the front panel. I tried drilling out the broken piece, and finally got it out, but also ruined the thread and took out a sizeable amount of bakelite.

Using the instructions supplied with the repair kit, I was able to fill the oversize hole, and make new threads. After using the release agent on the new standoff rod, and applying the 2 part mix, slowly and carefully thread the new standoff into the mix and support it so it doesn't move. After 5 minutes, unthread the standoff, and voila' a whole new set of threads. After letting it set for 30 minutes or so to cure, remove one or 2 threads on the standoff so it doesn't bottom out, and you are in business. This new thread will withstand decent torque.

When making repair threads for a tapered thread, such as a wood screw, it is best to put a thin flat washer under the screw head so that the screw does not bottom out. As I said, this stuff works great making new threads or repairing old ones.

Fred Crews



# EDITOR'S CORNER



## Carolina Antenna Submission Schedule

### 2003

**July 26th**-Summer Swap Meet,  
Valdese NC.

**October 25th**-Fall Swap Meet,  
Greensboro/Jamestown NC.

### 2004

**January 31st**-Winter Swap Meet,  
Columbia SC.

**March 25 to 27**-CC-AWA Annual  
Conference, Charlotte, NC.

**May 8th**-Spring Swap Meet,  
Spencer NC.

### **NEW SUMMER SWAP MEET LOCATION**

Many thanks go to Richard Owens for finding a new location and offering to host the CC-AWA Summer Swap Meet. Richard and family live in Valdese NC and he has arranged for the club to use McGalliard Falls Park located just off Main Street/Hwy 70 in down town Valdese. The date for the summer Swap Meet is Saturday July 26. Like always the event will start up at around 8AM and should be wrapped up by noon. Admission and vendor setup is FREE You can find detailed driving directions on the clubs web page. You also shouldn't

**Quarterly Issues will be mailed during the first week of:**

**January    April    July    October**

The deadline for submission of material for each issue is the first day of month preceding the publication month, for the January issue the deadline is the first week of December, April issue, the first week of March, for the July issue, the first week of June and for October, the first week of September.

**PLEASE, try Not to wait until the deadline to send stuff in.**

Written articles should be sent to Laura Carter; photos & Want Ads go to Barker Edwards; Tidbits & News for the "With the Collectors" column go to Ron Lawrence.



Ads are free to club members collecting and restoring equipment for personal use. Please give your full name, address, zip, and either a phone number, or email address. If you want your ad to run for more than one issue, please submit the ad again. The CC-AWA is not responsible for any transaction and reserves the right to edit any ad submitted. All ads will be

included in the next issue as space is available. Please send your ads directly to -

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 116 East Front Street  
 Clayton NC 27520-1913  
 919.553.2330  
 email - wirelessshop@att.net

<p><b>For Sale</b></p>	<p>Best prices anywhere...All of the currently available popular Radio Books - 15 to 20% discount from list price.</p>	<p>Paul Farmer        Time Out of Mind Radio        PO Box 352        Washington, VA 22747-0352        Email        oldradiotime@hotmail.com</p>
	<p>Just out - Newest Bryant and Cones book, "Zenith, The Glory Years, 1936-1945: History and Products," only \$26. That's \$4 below list. Send SASE or email for complete book price list. Over two dozen titles. US Shipping \$1/book.</p>	

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**BE SURE TO VISIT THE  
 CC-AWA'S WEB SITE!**